

**DEVELOPMENT OF A CROWDFUNDING WEB-
PLATFORM TO IMPROVE THE EFFECTIVENESS OF
MEDICAL FUNDRAISING FOR A CHARITY FUND.**

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Abstract

Online medical crowdfunding has expanded the reach of charitable giving, bypassing the traditional barriers of geographic distance, institutional affiliation, or lack of personal connections. At the same time, lack of trust has emerged as the critical factor inhibiting success, especially in societies that are less comfortable with non-direct, and impersonal charitable giving. The aim of this project is to develop a new crowdfunding platform paradigm for a charity fund that simultaneously addresses the need for transparency and accountability and the need to create emotions of compassion and generosity. In typical medical crowdfunding, notions of trust at a deeper level, of compassion and of gratitude are often an afterthought, long after the design of the platform has been finalized and when there are limited opportunities for improvement. The innovative aspect of the proposed approach is that the need to tend to the human emotions of the donors is interweaved with the technical aspects of the platform design. To demonstrate the proposed approach, Qaiyrym.kz, an actual online medical crowdfunding platform has been built on behalf of Miloserdie, a specific charity organization in Kazakhstan. Initial results based on extensive testing with published cases of real patients demonstrate the feasibility and efficacy of the proposed platform in increasing donations for the charity organization. The platform managed to collect money and showed good performance compared to Miloserdie fund, though it might be attributed to the event organization and the audience specifics. Each feature implemented on our platform was analyzed based on the feedback and metrics results, which allowed us to assess their effectiveness and make some practical implications for crowdfunding platform managers and campaign initiators.

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Chapter 1 - Introduction

The main objective of this capstone project is to develop a new digital charity platform aimed at raising funds for the medical treatment of children. The digital platform is a relatively new form of medical fundraising technique. Indeed, in recent years medical crowdfunding became one of the areas that could obtain certain benefits from the online presence (Hofer, 2012). Medical crowdfunding aims at raising funds for covering the treatment-related costs of severely ill patients who cannot afford it. Both the wide availability of web technologies and the increasing costs of treatment contributed to the rising popularity of social media and online platforms as a method for ill patients and their families to seek financial support. This support can then be used to cover not only the treatment costs, but also related non-medical expenses such as traveling and accommodation, or cover the work off for family members, especially if the treatment must be conducted abroad. In some cases, crowdfunding can be the only way for patients to get treatment. Online technology is quite easy to use and allows fund seekers to reach out to a large group of potential donors.

For these reasons, online crowdfunding quickly gained popularity in many countries. During the pandemic, the 3 most popular online crowdfunding platforms in India managed to raise more than 3 billion rupees for more than 14 000 campaigns (Akhter, 2021). There are some examples of successful crowdfunding campaigns for British citizens (The Guardian, 2016). Health-related crowdfunding has become the largest category on the popular crowdfunding platform GoFundMe with 250 000 new campaigns annually (Solotke et al., 2020). While operating in several countries, the country helped to gather more than \$650 million in total for such needs (Solotke et al., 2020). Other popular platforms such as YouCaring and FundRazr also hosted thousands of medical fundraising campaigns (Snyder et al., 2016). This shows how important online tools are for the beneficiaries.

The number of crowdfunding campaigns that are seeking funds online is increasing in Kazakhstan as well (Aitbayeva, 2018). There are a few charity organizations and funds that raise money for medical expenses. For medical crowdfunding, most such organizations provide means to donate online (The Village Kazakhstan, 2019). In Kazakhstan, posts on social media and posts by social influencers play a prominent role in the online charity, however, such campaigns are non-regulated and cannot guarantee

to deliver of the funds to the actual fund seekers (Syzdykbayev, 2017). Despite the increasing number of campaigns that are created on the web, the online medical crowdfunding is still under development in Kazakhstan, especially in comparison to other countries. Crowdfunding to finance commercial projects is not widespread yet, as a result, treatment fund seekers are not actively using dedicated crowdfunding platforms. Beneficiaries are mostly raising funds through viral social media posts, or by contacting charity funds or the government agencies.

In Kazakhstan, every year the number of charitable organizations is growing, along with this, the number of programs they implement is also increasing (Turan Times, 2022). This fact forces foundations to better organize their fundraising efforts and carefully choose approaches to be able to collect necessary amounts of donations. An increasing number of research studies indicates that the methods used to present charity campaigns for donations have a significant impact on philanthropic giving (Chang & Lee, 2009; Small & Verrochi, 2009; White & Pelozza, 2009). Consequently, creating a powerful appeal should be one of the organization's main objectives in the increasingly cutthroat world of fundraising. However, some charitable foundations fail to fundraise the necessary amounts, which leads to devastating consequences (Mgorod, 2022). Only in a single charitable organization “Милосердие (Miloserdie)” among all 41 officially registered foundations in Kazakhstan (Egov, 2023), 81 children were unable to overcome their disease due to the lack of fund for their treatment (Detdom, 2022). As no other Kazakhstani charity organization provide similar statistics, beforementioned foundation was used to show the significance of the problem. There are number of factors that hamper donors from donating to charity organizations.

Kazakhstanis often refused to participate in charitable activities due to the lack of reliable information about charitable foundations (Turan Times, 2022). Moreover, nearly 90% of those surveyed reported that they prefer to help the less fortunate without involving an intermediary organization (TUSEV, 2016). Indeed, the lack of trust and confidence towards charitable foundations is central in charity fundraising, especially when using online platforms. According to Kuchler et al. (2020), many charitable organizations worldwide struggle to raise funds online. Trust between the beneficiary, the platform and the donor is one of the most important causes of this problem. During online interactions it is hard to develop trust as the donor and the beneficiary cannot see each other. According to Kuchler , trust is an important factor that positively contributes to the

intention of donating. Trust for the platform is closely related to the trust for the beneficiary, thus, it is important to generate trust in the platform first to increase the amount of donations (Ba et al., 2022). Individuals that have trust in the platform are more likely to donate. Clearly, content on the platform is a key factor for trust generation (Kuchler et al., 2020; Ferreira et al., 2022).

There are numerous reports on social media and news about fraudulent medical fundraising campaigns (KazInform, 2022). One of our project executors stumbled upon fraudulent medical fundraising in social media (Kazinform, 2022). This incident was the primary reason for starting the project. These kinds of situations are not rare in charity, implying that the issue is significant and deserves attention. According to Aruzhan Sain, the founder of “Милосердие (Miloserdie)” fund, the issue of fraud is common in medical crowdfunding campaigns in Kazakshtan, and that these cases impact on benefactors negatively (Khabar 24, 2022). Fraudulent campaigns attract funds that could have been directed at actual campaigns, while also creating distrust in crowdfunding and charity in general. There are also other factors that can help to achieve better success in raising funds. Some of them that are attributed to the platform itself, such as its design and usability can also help in removing the barriers in donating money (Kuchler et al., 2020). Several authors indicate that people are willing to donate more if they experience influence from their peers (Hou et al., 2021; Huang et al., 2021).

Due to the reasons related to lack of funds raised, developing a trustful medical crowdfunding platform for a charitable organization is an important step in extending access to medical care to those who, in fact, may not have the financial resources to pay for it. The platform will aim not only to help to provide the necessary amounts for medical procedures of people in need, but also it will provide donors with a reliable and secure way to donate to medical causes that they are passionate about. In this project, we will develop a trustworthy medical crowdfunding web-platform for charitable organization “Милосердие (Miloserdie)” aimed to increase the amount of donations along with the number of donors supporting the foundation. Numerous methods and techniques best suited for building a crowdfunding platform will be analyzed and implemented in this project to create trust between backers and beneficiaries and reduce barriers for donations.

1.2 Company description

Voluntary community “Милосердие (Miloserdie)” is a nonprofit organization based in Almaty, Kazakhstan. The organization acts as a charity fund that aims to help ill children around the country that cannot be treated in Kazakhstan and cannot afford expensive treatment in other countries. The Miloserdie fund started its activity on April 6th of 2006. Throughout the 17 years of active help to ill children, the fund has raised more than 5 billion tenges. That amount of raised money was enough to help 2296 children from Kazakhstan. The main partners of the fund are large Kazakhstani companies such as Kcell, Air Astana, Beeline KZ, Kaspi, etc.

It was found by Ren et al. (2020) that people are more likely to contribute to the campaign if the beneficiary is a child than if it was an adult. The most important task of the fund is to be a “communication link” between those who want to help and those who need help. It is no secret that sometimes people want to be useful, and most importantly, they have the opportunity to help: with money, and services, with their own hands or professional knowledge.

The Milocerdie fund is focused on working in three directions such as “Gift Life to Children” (Подари Детям Жизнь), “Victory Over Autim” (Аутизм Победим), and “Kazakhstan Without Orphans” (Казахстан без сирот) in Kazakhstan.

Gift Life to Children - fundraising and search clinic project for the treatment of children who are found to be incurable in Kazakhstan. The project is primarily aimed at systemic changes in the field of healthcare in Kazakhstan at the state level. To do this, within the framework of the project, we held master classes to train our doctors in advanced technologies to improve efficiency, organize foreign internships, and analyzed various problem areas with the involvement of highly qualified specialists.

Victory Over Autism project is aimed at systemic changes in the provision of specialized assistance and social adaptation of children with ASD. Within the framework of the project, with the support of the Samruk-Kazyna Trust Social Projects Development Fund, the Center "Let's Win Autism!" in Almaty, where children with ASD receive specialized comprehensive care.

Kazakhstan Without Orphans project aims to change the system of state guardianship of children left without parental care, so that children can maximize their right to grow up

and be brought up in a family. Within the framework of the project, among other things, the Republican data bank of orphans and children left without parental care (RDB) operates.

Chapter 2 - Literature review

2.1 Medical crowdfunding

In general, crowdfunding may act as an alternative to traditional methods of financing expensive projects and campaigns. Fund seekers put a detailed description of their project, amount that they need and the due date for its financing which is usually about from few weeks to several months. The public who sees these campaigns will then decide whether or not they are willing to donate small portions of their money to help to make this project possible. Crowdfunding can provide means to create new business, launch new expensive products or pieces of art, or help existing businesses to survive. Besides gathering funds for the financing of the projects, the campaign initiators can also see the level of support for them (Kuppuswamy & Bayus, 2018) among potential buyers. This source of funding also carries less risks for the entrepreneurs since they can raise money without getting excessive loans or promising future long-term returns in exchange for investments such profit-sharing opportunities even though they can be used to attract more funds from the public.

Some of the earliest known public crowdfunding campaigns are attributed to Joseph Pulitzer who used his newspaper to gather funds for building the pedestal of the Statue of Liberty (Allison et al., 2017). There are several success stories of many independent artists, content creators, inventors, and entrepreneurs whose main source of financing new projects was crowdfunding without which the world would have not seen some of its interesting projects, creations of art and inventions (Steinberg, 2012). Crowdfunding was a major funding source for the election campaign of Barack Obama in 2008, with some authors even calling him the “fundraising phenomenon” (Tran, 2008). Media played a key role in finding money for the implementation of such projects.

Just like newspapers in the past, social media and Internet websites are actively being used today to gain audience, create appeal, and raise funds for many creators and beginning entrepreneurs. The authors of the fundraising campaigns can finance their projects for simple donations or in return for some rewards and benefits related to the future product or service, according to Belleflamme et al. (2014). Kickstarter, one of the largest crowdfunding platforms known today, already has several success stories of interesting inventions that saw the light of the day thanks to donations from interested individuals. Steve Taylor’s movie called “Blue Like Jazz” lacked financing due to some

of the investors leaving but managed to be finished thanks to 4500 supporters from Kickstarter who donated almost \$350,000 (Kuppuswamy & Bayus, 2018). More than 13500 people donated almost \$1 million to a project that converted iPod nano into a wristband (Kuppuswamy & Bayus, 2018). The products from one of the most popular smartwatch brands Pebble became available to the customers thanks to Kickstarter when its founders failed to attract investments in a traditional way. The initial goal of \$100,000 was achieved in just two hours while, in total, the campaign managed to raise almost \$5 million. If the users donated a certain amount, they would receive the watches in exchange when they were released (Kuppuswamy & Bayus, 2018). These examples illustrate the power of crowdfunding and how it can help to finance new ideas and even to create successful businesses.

With the emergence of crowdfunding people realized that it became possible to fund medical treatment campaigns as well. Medical crowdfunding is one of the possible sources to cover unaffordable costs of treatment for disadvantaged individuals who had to face a serious illness. Other such sources might include help from charity funds (both private and public), government support or simply support from wealthy patrons who want to help. In medical crowdfunding, however, individuals usually set up a public campaign describing what they money for, their disease and how donors can assist them while also providing payment card information so that they can receive money. Either the disadvantaged individuals themselves or their families and friends can act as fund-seekers. They typically will post a story, video or images of the patient to cause emotions and intend to donate from those who see their campaign. Donors can then donate small amounts of money which then add up to cover the beneficiary's needs fully or partially. Young and Scheinberg (2017) compare crowdfunding with matching supply and demand in retail services: crowdfunding also tries to effectively connect donors (suppliers) with people who need funds (demand). Like in the commercial projects the donors of the medical fundraising campaigns can also participate in projects that are aimed at helping the beneficiary. However, such campaigns also have a social effect and help the community since they may reduce the child mortality rates and positively affect the poverty levels (Ren et al., 2020). The fund seekers in medical needs campaigns can ask for money to cover various types of needs: treatment costs, diagnosis, post-diagnosis, travelling and accommodation in cases if the treatment has to be done elsewhere (Ren et al., 2020).

Charity funds can also play a huge role in raising funds for ill people. They can also implement measures to raise funds using crowdfunding mechanisms. For example, they may share information about the campaign through their media channels. They can provide benefits by giving legal assistance, help with choosing the clinic as they have more experience. Ba et al. (2022) stated that a charity can contribute more to the fundraising and participation performances of a medical crowdfunding project than an individual fundraiser as it generates additional trust for donors. This statement is in line with the Zhou and Ye (2018) findings, who declared that compared with the individual fundraisers' social capital and generalization capacity, charities master more experiences in attracting donors. In addition, in Hou et al. (2022) it was also stated that the assistance from professional organizations can help to raise more funds. Hence, to pursue a successful medical crowdfunding project, individual fundraisers may also consider charity as an agent to initiate their projects.

Unlike crowdfunding for commercial or art projects, the donors usually act purely due to their internal motivations and personal altruistic intentions. Studies have shown that people who enjoy helping others are also more likely to participate in online medical crowdfunding campaigns by donating their money (Hou et al., 2021). Since the campaign initiators cannot provide something materialistic in return, they usually have to employ the intrinsic motivations of the public by causing emotions in them and a willingness to donate in them as a result.

2.1.1 Why do people use medical crowdfunding?

The reasons why people consider the option of medical crowdfunding can be different. Various countries and legislations have different laws and regulations on helping people with expensive treatment procedures. Very often the individuals seeking funds face a rare disease that requires special medical treatment. Snyder et al. (2016) list lack of funds to cover the treatment, lack of insurance coverage, inability to dedicate time and efforts to the ill relative or having to leave work as some of the reasons for medical crowdfunding. They also state that the people who must fight with acute diseases are more likely to resort to crowdfunding than those who are dealing with chronic diseases (Snyder et al., 2016).

The background situation in the world that aligned together with the rise of the usage of smartphones, Internet and social media might have also affected the reasons for the popularity of online medical crowdfunding by putting additional stress on the fund

seekers and forcing them to find new sources of financing. Ren et al. (2020) mentioned in their study the general trends for the reduction of insurance coverage, decreased financial situation following the economic crisis of 2008 and poor healthcare regulations. For some people who struggle to finance the treatment of themselves or their closest relatives, medical crowdfunding can be the only way to cover their medical fees. Sometimes it becomes vital as it is the necessary method to gather the required amount of money.

Development of online platforms has further boosted the popularity of medical crowdfunding. According to Young and Scheinberg (2017) medical crowdfunding campaigns were among the top earning ones on many popular crowdfunding websites. People tend to choose online platforms for funding their medical needs also because of their convenience and features that they offer. They can easily publish the details and description of a new campaign to social media or a crowdfunding platform. Later they can share them with their friends and relatives so that they can spread it even further. Internet technologies nowadays provide means for easy posting and potentially quick spreading of information. Huang et al. (2021) emphasize that online platforms are usually designed in such a way to make it convenient both for patients to post their stories and for donors to donate money in a few clicks. The process was significantly simplified with the help of online platforms, thus, removing some barriers in connecting the beneficiary with the donors. Xu & Wang (2020) provide an example of the situation in China where convenient online payment methods such as WeChat and Alipay contributed to creating convenient conditions for the popularity of online crowdfunding. People in China can now easily donate small amounts of money on the go. In the study conducted by Choy & Schlagwein (2016) respondents stated that the online platform made the donation process less complicated. In addition to that, in some cases the campaigns would have not get so much attention without online presence. In the same study by Choy & Schlagwein (2016) respondents said that they would have not even known about the campaign without an online platform and where to get information to help them properly. Therefore, information technologies can provide significant benefits both for the fund seekers and the donors.

2.2 Online crowdfunding around the world

Many studies also research the specific details of the fundraising campaigns in different countries. Due to cultural and socioeconomic differences, different trends emerged across the world. These factors can affect the form of the donations, payment methods, type of platforms, how much people tend to donate, how the beneficiaries tend to present themselves, etc. The cultural values and beliefs that might be common to the nation can shape the whole perspective on the online donations for patients.

One study suggests that China is an example of a country with a unique and interesting situation with online crowdfunding (Xu & Wang, 2020). The payment methods in this country such as WeChat and Alipay have entered the market and rapidly became extremely widespread thanks to their convenient technologies allowing most of the Internet users in China to be able to send donations online. Moreover, the collectivistic culture, self-reliance and family values that are incorporated in their culture and traditions, have contributed to the increased willingness of people to make small donations. Like Jin (2019), Xu & Wang (2020) also list the weak situation with social security in China, economic differences between urban and rural areas, struggles of unemployed to receive help among other reasons why medical crowdfunding became so widespread in China. This led to an increase in the popularity of crowdfunding and the emergence of new crowdfunding platforms. The most popular one in China is called Easy Fundraising. In total there are “13 Internet Public Fundraising Information Platforms approved by the Ministry of Civil Affairs of China”. The platform had almost 200 million users and gathered more than RMB 20 billion during its period of existence (Xu & Wang, 2020).

Sharing information about crowdfunding in social media is very important in China and has a great impact on the success of a crowdfunding campaign there. The way how information about crowdfunding is shared in social networks in China was analyzed in Zhou et al. (2022). They analyzed different messages in WeChat and found that the credibility of a sharing user positively impacts the donation and forwarding (further sharing in social media) decision of their followers. The information about the beneficiary in the shared message also contributes to the campaign's success. If the user has a relationship with the patient (relative, friend, colleague) the campaign is more likely to receive more support from the user followers.

The justifications used by the beneficiaries of the crowdfunding campaigns were analyzed by Snyder et al. (2017). Canadians are actively using crowdfunding platforms such as GoFundMe and YouCaring. They revealed that the beneficiaries use a variety of ethical justifications in order to cause intentions to donate from donors. They include building personal connections with donors, highlighting the severe condition of the patient and the idea of giving back to the recipients. The first category of recipients emphasized the need to provide care for the patients and help throughout their campaign. Campaigns that focused on highlighting the severe condition emphasized the idea of gifting long and happy life to child patients and more years to live for adult patients. The last category focused on the achievements of the recipients underlining their contributions and help to society, thus, mentioning the idea of giving back to them. Authors also indicate that these justifications did not include the notion of injustice or inequality, because Canada provides universal healthcare to all its citizens. For this reason, many campaigns in Canada ask to help cover costs that are not related to medical treatment directly, for example accommodation or travelling.

GoFundMe is one of the most popular crowdfunding platforms in the world. This platform is operating worldwide and can be openly used by anyone who wants to raise money for any purpose. Study by Zhang et al. (2021b) analyzed the success factors of the campaigns on this platform. The health-related campaigns are among the ones that are likely to have success on GoFundMe. It was also found that it is better to write the appeal in the campaign description from the perspective of the campaign beneficiary. Regarding photos, the more successful campaigns included pictures that showed the patient or family before their member faced an illness or injury.

In India, crowdfunding through donations and charity in general were a part of the culture through their history (Suresh et al., 2020). Donation in the form of food or items is quite popular there. Online crowdfunding became an important source of funding during the COVID-19 pandemic on platforms such as Ketto, Milaap and Impact Guru (Bishnoi et al., 2022). Many of them knew about crowdfunding only because they or their relatives have faced the problem of financing the medical expenses. Still, the awareness about online medical crowdfunding and its general development is at a low level (Bishnoi et al. 2022, Suresh et al., 2020). This is explained by poor Internet coverage and lack of policies and regulations. The public opinion about medical crowdfunding in India is yet to be improved even though many of people stated the need in medical funds. 30% of the

population does not have trust towards online crowdfunding. However, it is expected to gain popularity due to development of IT infrastructure, social inequality, and financial needs (Suresh et al., 2020).

Culture in Bangladesh also puts a lot of emphasis on helping others and charity (Suresh et al., 2020). However, the amount of funds raised online is very limited. The number of people who are aware of online crowdfunding is also very low. For today, the existing online crowdfunding platforms in Bangladesh still have limited success. Nonetheless, the general perception of crowdfunding is mainly positive in Bangladesh as many people stated that would like to donate through a local online platform. This means that there is potential for crowdfunding development in this country.

2.3 Charitable fundraising in Kazakhstan

Charity is an important part of Kazakh culture, and giving to those in need is highly valued. In traditional Kazakh society, charity was often practiced through the provision of food, shelter, and other basic necessities to those in need (Asyldin, 2020). Today, charitable giving in Kazakhstan takes many forms, including donations to non-profit organizations, volunteering, and individual acts of kindness. Charitable foundations in Kazakhstan work to support a range of causes, including poverty alleviation, healthcare, education, and environmental protection (Egemen Qazaqstan, 2021).

Religious organizations also play a significant role in charitable giving in Kazakhstan, with many mosques and other religious institutions providing support to those in need. One of the most significant ways in which religious organizations contribute to charity in Kazakhstan is through the provision of social services (Muftyat, 2021). Many religious organizations operate soup kitchens, homeless shelters, and other programs that provide food, clothing, and shelter to those in need. For example, the Muslim charitable organization "Зекет (Zeket)" aids vulnerable groups, including the elderly, orphans, and disabled people (Zeket, 2023).

According to the World Philanthropy Index, at the end of 2021, Kazakhstan took 98th place out of 114 countries (Turan Times, 2022). This index is a combined indicator that measures the achievements of all countries in terms of the behavior of their population towards charitable assistance. This ranking could be the result of frequent fraudulent activities that have occurred in the country, which consequently has impacted on people's charitable donating will. There are three most common ways of charitable fundraising,

which are: fund-seeking using social media platforms, fundraising with the help of volunteers, and fundraising by charitable organizations. In this section of the thesis, three popular methods of charitable fundraising in Kazakhstan, along with the concerns related to them are reviewed.

2.3.1 Charitable fundraising using social media platforms

Internet penetration in Kazakhstan is growing rapidly, with over 16.4 million internet users out of 19.1 million population in the country at the start of 2022 (Kemp, 2022). This means that more people are online and using social media platforms. With the rise of social media users, people in Kazakhstan have the unique opportunity to leverage this technology for charitable fundraising. Social media platforms provide an effective way for people to spread awareness about charitable causes, as users can easily share content and information about fundraisers with their own networks (Freeconference, 2022). Through this approach, influencers, **bloggers and** content creators can encourage their followers to donate to the cause, bringing in a larger pool of potential donors. Additionally, social media is an excellent tool for engaging directly with potential donor through direct messaging, comments, and other interactive features and developing a relationship with them (Berezhnoy, 2018). Moreover, social media platforms are free to use, which means that individuals can create social media accounts and post content at no cost. This makes it an affordable way to spread awareness and fundraise. Considering donation process, in majority of fundraising campaigns in social media platforms, beneficiaries share their personal banking information, so that donors would be able to remotely transfer donations using their internet banking applications such as Kaspi.kz, Jusan, BankCenterCredit and others (Orazbay, 2022).

While social media platforms offer a convenient and accessible way for individuals to donate to various causes and campaigns, there are also concerns that donors should be aware of. Firstly, donors may be concerned about the legitimacy of individual fundraisers and whether their donations will actually go towards the intended cause. There have been cases of fraudulent fundraisers who use social media to solicit donations for personal gain (Kazinform, 2022; Khabar 24, 2022). Secondly, donors may want to know how their donations are used and may be wary of individual fundraisers who do not provide transparent information about their goals, budgets, and expenses (Burtch B., 2014). Lastly, donors may be concerned about the accountability of individual fundraisers and whether they will follow through on their promises. Without a formal organization or

structure, it may be difficult to hold individual fundraisers accountable for their actions (Amelia et al. 2021). Therefore, without proper control over transparency and accountability of running charitable fundraising in social media platforms, there is a high risk of not reaching the goals of the campaigns.

2.3.2 Charitable fundraising using volunteers.

The concept of a "charity volunteer" has emerged as a significant force in contemporary charitable fundraising efforts. This agent acts as a mediator, collecting funds on behalf of charitable organizations or individuals in need of assistance. While the volunteer may not necessarily have a direct involvement in the charitable cause, they are called upon to leverage their personal profile and extensive network to promote the cause and solicit donations (Klepikova, 2011). The volunteer's role is to raise awareness of the charity campaign and to inspire others to support the cause, utilizing their public persona and widespread audience to garner attention and motivate action (Kuzmenchuk, 2016). Thus, the value of the charity volunteer lies not in their direct connection to the charitable work, but in their ability to engage with and mobilize others towards the cause. The most common involvement of volunteers in charitable fundraising in Kazakhstan is the donation gathering using boxes and files with the information about recipient. Volunteers walk around the crowded places and collect amounts from passersby (Boyarova & Sultangazy, 2021).

Based on estimations made by Ayana Seitkhan, the volunteer population in Kazakhstan was about 48,000 people, while the number of volunteer organizations and groups was more than 3,000 in June 2021 (Seitkhan, 2022). In light of the COVID-19 pandemic, the number of volunteers has increased significantly, particularly during the Year of the Volunteer in Kazakhstan, which is the year 2021 (Zeng, 2022). However, obtaining precise data regarding the scope and distribution of volunteer activities remains a challenge. The lack of available information precludes a comprehensive understanding of the types of activities in which volunteers are engaged and the specific areas in which they are contributing their efforts.

Despite the clear benefits of engaging volunteers in charitable fundraising campaigns, concerns over the legitimacy of these volunteers remain a salient issue. In Kazakhstan, numerous instances of fraudulent activities perpetrated by volunteers have been documented, highlighting the need for greater oversight and regulation of volunteer-led

fundraising initiatives. One such example occurred in Astana, where Anel Zhumabayeva initiated a fundraising campaign in April 2022 to raise funds for her daughter's medical treatment (Tengrinews, 2022). Zhumabayeva encountered several individuals on social media platforms who are artists willing to assist with fundraising efforts for a fee, as well as fraudulent volunteers. However, one volunteer, in particular, posed as a legitimate volunteer, persuading Zhumabayeva to consent to the collection of funds. Subsequently, it was revealed that the individual raised the funds under the pretext of assisting her family but using it for personal enrichment after Zhumabayeva declined his offer.

In response to these cases of fraudulent activities perpetrated by unscrupulous volunteers, the President of Kazakhstan signed amendments to the country's law on charity on 4th of July 2022 (Adilet, 2022). These amendments mandate the establishment of a civil law contract between the charitable organization and the volunteer, or between the volunteer and the person in need of assistance, before any fundraising activities can commence. Failure to comply with this requirement may result in criminal liability for fraud and predation (Diapazon, 2022). These regulatory measures seek to enhance the transparency and accountability of charitable fundraising campaigns in Kazakhstan, protecting the interests of both donors and beneficiaries.

2.3.3 Charitable fundraising by charity foundations

Charitable foundations play an important role in fundraising in Kazakhstan. They serve as a channel for individuals and corporations to donate funds to various causes and projects. There are several ways that charitable organizations contribute to fundraising. Firstly, charitable foundations in Kazakhstan work to identify areas of need and raise awareness about social issues. They also develop fundraising campaigns and events to mobilize resources and encourage donations (Turantimes, 2022). Secondly, many charitable foundations in Kazakhstan partner with corporations to raise funds. This can take the form of corporate social responsibility (CSR) programs, where companies donate a portion of their profits or provide in-kind donations to support a particular cause (Nayzabekova, 2021). Lastly, the Kazakhstani government offers tax incentives, such as a reduction in taxable income by 3-4% to encourage charitable activities (Altynbayev, 2022). Charitable foundations can help facilitate the donation process and ensure that donors receive the appropriate tax deductions. Therefore, most of the donations raised by charity organizations are from legal entities. From the other side, it is common practice when funding for charitable foundations is carried out by generous patrons and sponsors,

and in some cases, the founders themselves bear the cost of maintaining the foundation (Turantimes, 2022).

To ensure transparency in their activities, many Kazakhstani foundations provide ongoing financial and tax reporting by posting it on their official websites. This practice serves to build public confidence in the foundations, which is an essential component of their success. Despite these efforts, there is often a lack of reliable information about charitable foundations, which has contributed to a reluctance among the Kazakhstani people to participate in charitable activities (Turantimes, 2022).

In August 2020, Atameken Business conducted a survey, which revealed that 77% of respondents lacked trust in charitable organizations in Kazakhstan (Inbusiness, 2020). Moreover, the official egov.kz website indicates that 41 charitable foundations are registered in the country (Egov, 2023). However, the level of charitable activity observed online suggests that there may be numerous unregistered charitable actions and donations taking place (Ermekeyzy, 2021). This lack of transparency has contributed to instances of fraudulent activity, such as that which occurred with the charitable foundation Xapeket (Hareket) (Kaztag, 2022). In this case, the foundation collected donations from benefactors for an intended charity event, but the building authority responsible for the event venue denied that such an event was planned to take place. These types of occurrences influence donors' willingness to donate and trust charitable foundations, and hence organizations need to be far from these like instances.

2.4 Generating trust in online crowdfunding

In the crowdfunding industry, trust plays a crucial role. Trust can be interpreted as an intention to believe in. Due to the significant growth of crowdfunding platforms and foundations, the number of suspicious transactions also increases. Trust issues arise when there are conflicts in information exchange (Swan & Nolan, 1985). In support of this example, this situation may happen when the information provided by recipients for crowdfunding platforms is not genuine. In practical terms, the trust level in the platform may diminish, as the dissemination of inaccurate information by the recipient is only discernible to the donors. One of the ways to gain trust is to use features that have a social presence meaning. Implementation of features that evoke the social responsibility of users may increase the beneficiary's trust. In the study by Gefen and Straub (2004), the trust in the platforms will increase only as the social presence increases. Trust disposition towards

crowdfunding platforms is extremely important (Alhidari, 2014; Knowles et al., 2012; Oosterhof et al., 2009). The social presence consumers of crowdfunding platforms may have different levels of readiness to trust, especially when there is not enough information that has been published. Therefore, crowdfunding platforms must provide detailed information about the recipient.

What strategies and tools could be used for gaining trust is the main question that founders of charity funds and crowdfunding platforms ask themselves. In the study conducted by Kuchler et al. (2020), two variables could be used in the prediction of donation behavior. The variables such as the specific design of factors and trust in the organization have a strong impact on the decision of whether to donate money or not. The aesthetics and design of the website could be important in evoking reactions from donors and urging donors to act (Thielsch et al., 2014). As only the user reaches the website, the website's used colors and location of components are supposed to ensure that the platform is safe. Therefore, the website aesthetics is a determinant in deciding to donate money. The usability of the platform plays less role because the user is intuitively expecting that the platform is supposed to be functional and responsive to all possible scenarios and actions.

As it has been linked in the study made by Ferreira et al. 2022, the authors have identified the organizational practices that may increase the user's trust in the crowdfunding platform, donors, projects, and crowdfunding in general. The first and most important practice is to build trust in crowdfunding. For some people who have no past experience in participating in crowdfunding events, it may seem like a suspicious movement. Therefore, the crowdfunding organizers must explain what crowdfunding is and for what purposes they will spend received donations. For example, the organizers may use vocabulary or publish a guiding video explaining how crowdfunding works.

2.4.1 Building trust toward the platform

In terms of building trust toward the crowdfunding platform, some practices must be implemented for succeeding in the crowdfunding event. One of these practices is "humanizing" the platform. Donors may get an intention to help because they want to consider themselves as a part of the community (Gerber & Hui, 2013). One of the ways of humanizing the platform is posting a recipient's picture as well as providing the platform users with a biography of the recipient. This personal representation serves not only to prove that the crowdfunding event is real but also to establish a sense of human

connection between the recipient and donor. (Ert et al., 2016). Furthermore, the crowdfunding platform may generate trust by creating an online chat for users through which they can reach the management team. For some users, it will be beneficial to get the answers to all the questions that may arise about the platform. Another practice for gaining trust is the cooperative work of the crowdfunding platform with externally recognized organizations. The partnership with already established organizations may help in not only gaining the trust of donors but also registering the company and raising investments. For example, the charity funds must mention the external company that they work with using words such as “supported by” or “guaranteed by”. The next practice refers to building the crowdfunding platform’s reputation in general. Usually, building platforms is related to the usage of features such as showing the previously run charity campaigns, the number of daily visits to the platform, the amount of raised money, and displaying the progress overall. For instance, the platform developers may display the overall amount of raised money, the number of successfully completed crowdfunding events, the partners' name and etc.

The establishment of trust in a crowdfunding platform mostly depends on the past and safety experience of users (Strohmaier et al., 2019). Nowadays, in a time when advanced technologies are all around, the cybersecurity industry is trending due to its importance and potential hazards that only increasing. Due to a huge number of fraud cases, people became aware of possible personal data leakage that may lead to scams (Strohmaier et al., 2019). Therefore, ensuring the users that the platform is using the latest security protocols will significantly reduce the uncertainty for those users who make donations using the platform. Trust in the platform can be increased by openly disclosing all the risks associated with using the platform since it will improve transparency.

As the study also showed, platforms should have a user-friendly design to help users avoid any misunderstanding and problems in the usage process. The personal logins and saved user preferences help to make the platform more personal for each individual. Another feature that must be added to the platform design is the history of transactions made throughout the crowdfunding event activity. That feature will only help to display all donations made by a user but also help to build a sense that the platform is tracking all donations. In general, the feature that shows the received support from donors has two main benefits such as helping a user to track the progress of a crowdfunding platform as well as motivating a user to donate and increase the progress percentage. Last but not

least, a feature that must be added is sending email notifications about upcoming events and updates regarding current crowdfunding events. Moreover, it would be beneficial to provide means through which donors could stay in touch and ask questions that may arise.

2.5 Fraudulent issues in crowdfunding

In general, medical crowdfunding is a very popular activity using social networks to raise money for medical expenses. Since running medical crowdfunding events is not that difficult, these events also have a significant risk of fraud possibility (Zenone & Snyder, 2018). Health-related fundraising campaigns are extremely popular worldwide (Snyder, 2016). With the increased number of conducted medical crowdfunding events, the number of frauds also does not remain the same. Some of the ways of fraud in medical crowdfunding are providing fake illness information as well as impersonating the ill person (Snyder, 2016). Unfortunately, it does not seem possible to identify the categories of fraud that take place in medical crowdfunding. Moreover, medical crowdfunding events are more vulnerable to fraud when the emotional content of the recipient is being published. This type of content creates a sense of urgency, which leads emotionally vulnerable donors to donate as soon as possible (Agrawal, Catalini, & Goldfarb, 2014). Therefore, the donors that are willing to donate to medical crowdfunding are vulnerable to becoming victims of fraud without any clear guarantees to return the money.

There are different types of fraud in medical crowdfunding (Zenone & Snyder, 2018). Zenone & Snyder (2018) identified 4 types:

- Falsely claiming of having a disease. This type of fraud is one of the most popular in crowdfunding campaigns. For example, the case of Shivonie Deokaran of Ardsley posted information that she had 18 months left to live due to a terminal illness (Zenone & Snyder, 2018). Emotion-inducing content was published in that case to evoke an immediate reaction to donate in donors.
- Faking another person's illness. An example of this is when a mother from Brisbane, Australia intentionally made her child get involved in raising money. To make the donors think that the child is ill, she posted pictures of the child from the hospital.
- Impersonation. In this type of fraud, the perpetrator does not have anything in common with the recipient. The main steps that scammers take in this type of fraud are copying and publishing disease information of another person who is

actually ill. However, after receiving donations, the scammers do not send money to the person whom donations were addressed to. A United States citizen started a crowdfunding campaign claiming that he was raising money for Luke Blanock who was struggling against terminal cancer.

- Misapplication of funds. The idea of this type of fraud is starting a campaign for the person who is really ill and needs help, but the donations that have been received will be used not for treatment purposes. Cody Lee Herring has started a crowdfunding campaign for the city church members. He had a direct connection with those members and had the right to run the campaign. However, he did not give the raised money to the church members because he spent it for personal use.

After reviewing the fraud categories and supportive examples for each of them, Marco Zenone and Jeremy Snyder have introduced fraud prevention recommendations that will help not only prevent fraud but also increase the trust between donors and crowdfunding campaigns.

- Asking prospective recipients to provide person identification documents. This feature may lead to a reduced number of impersonation cases.
- Clarifying the description of the crowdfunding campaign and for what purposes the money raised will be spent. By following that recommendation, the misapplication fraud type will be avoided.
- Transferring the money raised directly to the crowdfunding organization. This strategy will exclude fraud related to misapplication. Moreover, it will significantly increase the trustworthiness of the crowdfunding campaign since the recipient does not have access to them.
- Implementing the feature of support services for donors. By using the support service, the donors will be able to directly express their concerns about the crowdfunding campaign. Also, it increases the trust between the donors and the platform itself.

Unfortunately, even if the most common fraud categories and recommendations on how to avoid them are known, scammers continue to find new ways to raise money in fake crowdfunding campaigns. From September 2022, the people who are willing to help raise money using their social media accounts must sign an agreement with the person for whom the crowdfunding is supposed to be launched (24.kz). The thing is that some

bloggers, after conducting crowdfunding campaigns have asked for a commission from the money raised for organizing the advertising of the charity campaign. Therefore, the new law will increase the transparency of the charity campaigns conducted on social media networks.

2.6 Childhood diseases in Kazakhstan

The health and well-being of children and adolescents in Kazakhstan, like many nations, persist as a pressing concern and priority, given its implications for the future of the country. This encompasses critical aspects such as geopolitical security, the gene pool of the population, the scientific and economic potential of the society, and serves as a sensitive barometer for gauging the socio-economic development of the country, alongside demographic indicators (WHO, 2022). As per the report presented by the charitable organization "Милосердие (Miloserdie)", a number of illnesses are prevalent among underprivileged children (Semenova et al., 2023). Among these diseases, ophthalmology has the highest incidence, constituting 31% of cases as depicted in Table 2.1. Most of the children suffering from ophthalmology-related illnesses required treatment for retinopathy diagnosis. Additionally, genetic health issues are also recurrent among these children, with approximately 150 cases requiring urgent treatment for genetic abnormalities.

Table 2.1: Frequency of different disease types among 3000 children applied to the "Милосердие (Miloserdie)" charity foundation

Disease type	Frequency Percentage
Ophthalmology	31%
Neurosurgery	16%
Orthopedia	11%
Oncology	9%
Genetics	5%
Urology	4%
CHD	2%
Others	22%

The cost of treating the majority of genetic diseases, as reviewed on the charity fund's website, ranged from 210,000 – 570,000 tenge (Detdom, 2023; Appendix A). The average

cost of treatment was found to be 290,707 tenge, while the average duration for fundraising for these treatments was one month and thirteen days (equivalent to approximately two weeks) by the "Милосердие (Miloserdie)" charity foundation.

Chapter 3 - Methodology

The methodology of the capstone project is designed in a way to cover the approach for literature review, the application architecture, the development of both client and server sides, the review of implemented features of the application, and their source of code. The main application components will be reviewed, and their functionality will be explained using a source of code. The tools that have been used in the development of the client and server sides will be discussed and analyzed. For proper analysis of the success of the application, specific metrics will be reviewed as well. Also, the discussions regarding the preparation and launch of the MVP version of the platform will also take place in this part.

3.1 Approach for literature review

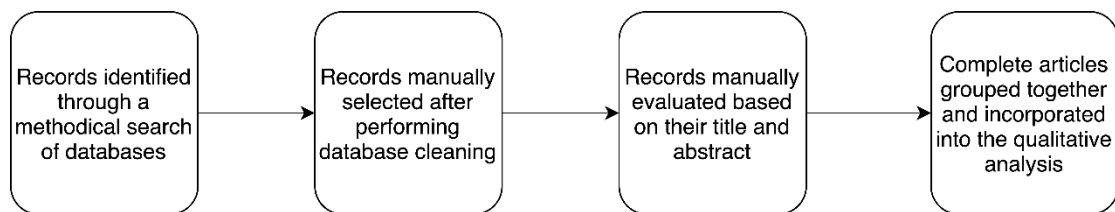


Figure 3.1: Stages involved in the comprehensive exploration of literature and qualitative analysis

To identify significant sub-trends, a systematic literature review was conducted, and the evidence was categorized by type. Lettieri et al. (2009) suggest that a systematic literature review is a rational, transparent, and reproducible methodology to analyze existing literature, as the gathering and synthesis of prior practical evidence (Delbufalo, 2012) can lead to an improved descriptive and thematic understanding of the resulting body of knowledge (Sivarajah et al., 2017).

The objective of this literature review was to outline the current state-of-the-art in crowdfunding as applied to the healthcare industry. To minimize the risk of missing potentially relevant contributions, a systematic search of the literature was conducted, as depicted in Figure 3.1.

The first phase involved preparing for the literature review by conducting a carefully constructed database search on Scopus, the largest peer-reviewed literature database (Nath & Chowdhury, 2021). The search strings included both crowdfunding and healthcare domains, combined using concept mapping and browsing through Thesaurus.com for synonyms to ensure the study's inherent cross-disciplinarity was

appropriately captured. The final search query included terms such as "crowdfunding," "medical," "trust*," "online donations*," "philanthropy*," and "digital platform*."

3.2 Development

In the development of a platform process, two structures such as client and server sides can be categorized for further development stages. This chapter will describe the technologies that have been used on both sides during platform development. The explanations of this chapter will dive deeper into the web application structures.

3.2.1 Application Architecture

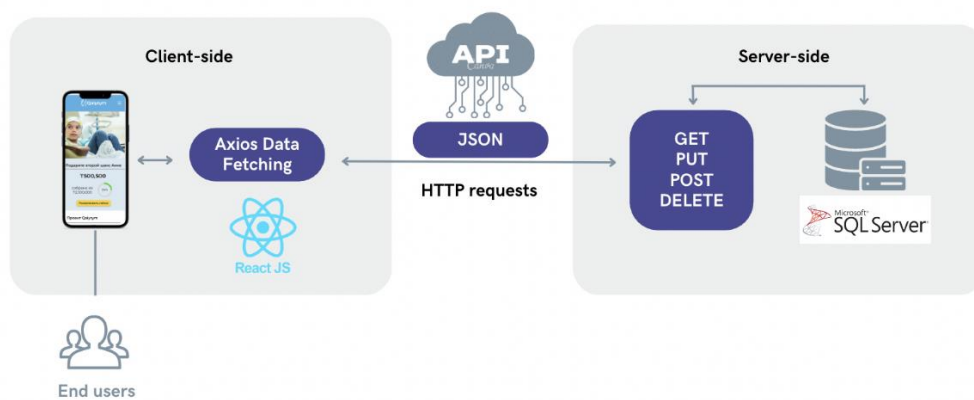


Figure 3.2: Application architecture

As has been mentioned before, the application consists of two main structures such as client-side and server-side. To get more intuition regarding the application structure and logic, Figure 3.2 illustrates the detailed algorithm of work and component's structure that are used in the development.

The client-side is responsible for retrieving information from database and displaying it to end user. The general responsibilities of client-side are building user interface, sending user data to server-side and data displaying. In the application, for displaying the information to a user that has been retrieved from the database, a Promise-based Axios client is used.

Axios (<https://axios-http.com>) is a popular and open-source library that is based on the JavaScript (MDN, n.d.) programming language. The main functionality of Axios is to display already transferred data from the HTTP requests. The HTTP (Hypertext Transfer Protocol) requests are messages that could be transferred from user to server. The HTTP requests contain many request types for making the user experience between user and

application much more delightful and reliable. There are several types of requests used in this application:

- GET request: Get request is used to display data that has been retrieved from the database. In other words, the user has only read access and is not able to make any changes to retrieve data.
- POST request: Post request is used for sending user information to a server. For instance, after filling in a required field a user presses a “submit” button which sends that filled data to the server.
- PUT request: Put request is used for updating the existing data of a user. For example, when a user would like to edit his/her message it can be considered as an updating process.
- DELETE request: Delete request is used for deleting existing user data from the database.

Since Axios only can display data to a user, a technology is used that is responsible for handling and transferring HTTP requests from the user to a server and back. The REST API (Representational State Transfer Application Program Interface) is a technology which is based on HTTP protocols and responsible for providing a communication channel between client-side and server-side.

The simple Axios function for displaying data from the database to a user can be seen in Figure 3.3. For example, for displaying the required amount of money that must be collected for a patient, the “amountreq” and “setAmountreq” constants should be created first. In those constants all required information will be stored. Then, as can be seen in line 333, the general function for data fetching is created, “fetchData”. Below the created function, the fetch method allows getting data from the link. After the data was received from the link, lines 335 – 337, that data is stored in a JSON format. JSON (JavaScript Object Oriented Notation) is a data format that is easy to write and read, the example of a JSON in Figure 3.4. The string called “amountCollected” of a JSON file contains the amount of 2,100,000 tenge. After the data has been converted to a JSON file, the “setAmountreq” constant must be used for saving the data from the JSON file. In lines 343 – 345, the “useEffect” function is used to activate the “fetchData” function.

```

330
331 const [amountreq, setAmountreq] = useState([])
332
333 const fetchData = () => {
334   fetch("https://qaiyrymapi.com/api/Transaction/recipientId/2")
335     .then(response => {
336       return response.json()
337     })
338     .then(data => {
339       setAmountreq(data)
340     })
341 }
342
343 useEffect(() => {
344   fetchData()
345 }, [])
346

```

Figure 3.3: Axios function for displaying a required amount of money

```

▼ {id: 2, isActive: true, firstName: "Анна", lastName: "Решетникова",...}
  address: "г. Петропавловск"
  amountCollected: 500500
  amountRequired: 2100000
  appraisal: ""
  dueDate: "28.02.2023"
  ▶ files: [{id: 3, name: "child-pic.webp", storageName: "35c6beb2-72dc-4847-b8a9-32625237
    firstName: "Анна"
    id: 2
    isActive: true
    lastName: "Решетникова"
    numberOfDonations: 11

```

Figure 3.4: A JSON message example

3.2.2 Client-side development

In general, to start developing user interfaces, it is important to decide which programming language and libraries will be used in the development. For the development of the application, it was decided to use separate tools for the server side as well as for the client side. The findings show that 42.62% of respondents use the React.js framework for designing and building user interfaces for web applications (Stackoverflow, 2022). React.js or React is an open-source JavaScript programming language-based library for building any design for web applications. Initially, the React was developed by Meta (ex-Facebook) for increasing the usability of its products such as Instagram and Facebook.

Before beginning the work in React environment, it is required to install the npm.js package. The npm.js is a package manager based on the JavaScript programming language. The npm.js allows JavaScript developers to download and install any third-party packages that could be used in the development. These packages are developed by other developers to make the development process easier by adding already created

components. In the development of the user interface, packages such as “react-loading-skeleton”, “react-circular-progressbar”, “react-player/youtube” and others have been installed. On the Figure 3.5 can be seen the examples of importing packages such as YouTube player, line 5.

```
> components > MainCard > MainCard.jsx > ...
1  import React from 'react';
2  import Skeleton from 'react-loading-skeleton'
3  import { CircularProgressbar, buildStyles } from 'react-circular-progressbar';
4  import 'react-circular-progressbar/dist/styles.css';
5  import ReactPlayer from 'react-player/youtube'
6
```

Figure 3.5: Importing third-party packages

However, working in the React environment is not enough to build usable and accessible user interfaces. The CSS (Cascading Style Sheets) language is used for styling created pages and functions using React. In other words, CSS is responsible for controlling the visual layout of web pages. CSS helps web developers to build the exact design that has been planned by UI/UX designers by allowing developers to choose fonts, colors, margins, padding, and positioning of HTML elements. Therefore, CSS is an important part of web development by creating dynamic and interactive web pages. In Figure 3.6, the example of the CSS syntax is demonstrated.

```
1  * {
2    box-sizing: border-box;
3  }
4
5  .patient-docs-2{
6    margin: 0 20px;
7  }
8
9  .pimage {
10   border-radius: 15%;
11   position: relative;
12 }
13
14 .wrapper {
15   display: grid;
16   grid-template-columns: repeat(2, 25rem);
17   justify-content: start;
18   position: relative;
19   column-gap: 20%;
20 }
21
22 .column1 {
23   display: grid;
24   position: relative;
25 }
26
27 .tag {
28   text-align: center;
```

Figure 3.6: The CSS syntax example

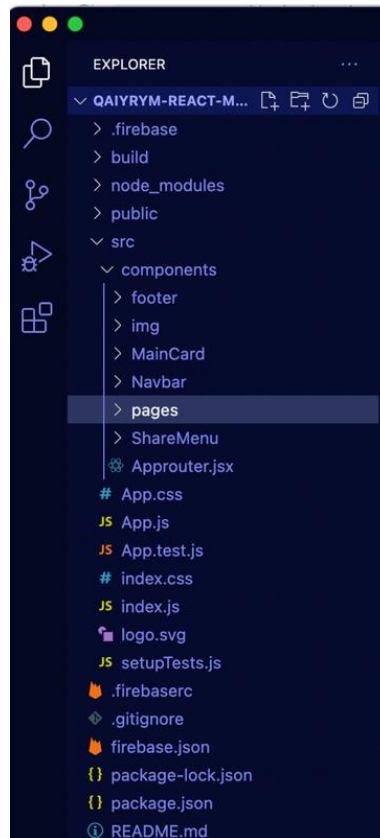
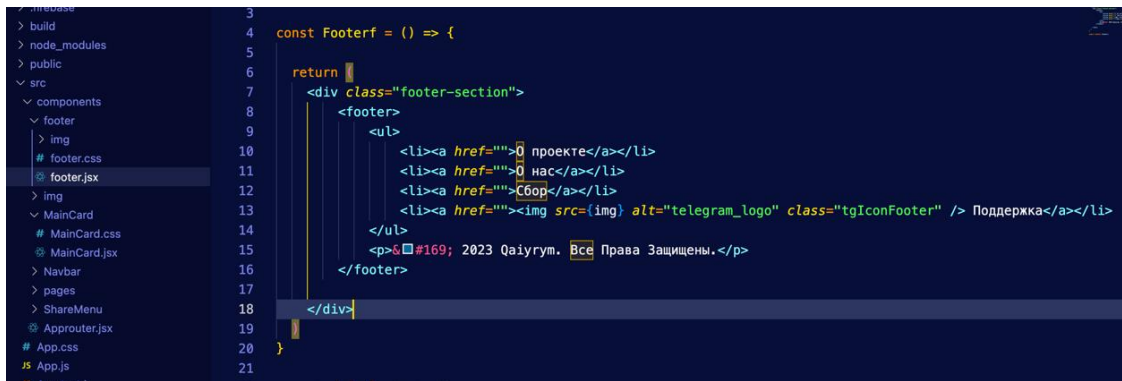


Figure 3.7: The internal structure of React library

The internal structure of the React library for the application development can be seen in Figure 3.7. Mainly, the folders such as “public”, “src” and “components” contain all the code required for the interface development. The “src” folder contains the component folder in which all interface functions are stored. Besides the component folder, there is also located a function, App.js, that activates all interface functions as only the platform begins to work. The App.js function contains the code that is responsible for running the application.

The components folder contains the user interface functions that are the footer, main and patient pages as well as navigation bar are stored in the folders with their relative names. An example of the footer function can be seen in Figure 3.8. All images that are used in the application development are stored in the “img” folder. As only images and functions are required for usage, they can be easily imported from the folders they are located.



```

3
4 const Footerf = () => {
5
6   return
7     <div class="footer-section">
8       <footer>
9         <ul>
10          <li><a href="">0 проекте</a></li>
11          <li><a href="">0 нас</a></li>
12          <li><a href="">Сбор</a></li>
13          <li><a href=""><img src={img} alt="telegram_logo" class="tgIconFooter" /> Поддержка</a></li>
14        </ul>
15        <p>☎ #169; 2023 Qaiyym. Все Права Защищены.</p>
16      </footer>
17    </div>
18  }
19
20 # App.css
21 App.js

```

Figure 3.8: The footer function in React

3.2.3 Database technologies

Database is used to store the data of all recipients and some data from the donors. This involves details about the patients, their images, information about transactions, words of encouragement, details of the campaign such as collected amount, finishing date and some other information. All this data needs to be stored at the database from which it can be retrieved and then displayed on the website for the users. The database has to be able to store those types of data, as well as support relations between different tables. For example, the transactions and comments should be connected with their corresponding recipients, so that if the user visits the page of a certain patient, only the related comments and transactions will be shown.

For the Database, the Microsoft SQL Server was chosen initially (Microsoft, n.d.-a). It is a relational database provider from Microsoft. It is developed by Microsoft which also developed the .NET framework that runs the backend side of the platform and will be described in the next subsection. Therefore, it allowed for a great integration between those two tools. There are plenty of libraries that support connection between .NET Web API and Microsoft SQL Server. In addition, it is one of the most popular databases in the world (Chand, 2022). Thus, Microsoft SQL Server has been already used by many customers worldwide and was proven to be reliable. It was the first choice for .NET developers. However, it requires a separate server with additional hard drive space to store data and run. It is a requirement, which is beneficial especially for large-size applications with high everyday traffic. Since this platform was designed to be tested at a smaller audience first, it was decided to change the database provider to save costs.

There was a shift from Microsoft SQL Server to SQLite (<https://www.sqlite.org/>). It is less popular in large-size applications. However, SQLite is quite suitable for the small-

to-medium-sized web apps. The Qaiyrym platform is also small in size, so SQLite can be a good fit. It is still among the ten most popular databases (Chand, 2022). SQLite can show better performance in terms of speed and occupied space for small-scale platforms, and it is free to use (SQLite, n.d.). Unlike databases such as MS SQL Server, which aim to provide scalability, SQLite tries to provide economy and efficiency (SQLite, n.d.). In addition to all those features, SQLite does not require an additional server with extra processing power and disk space. It stores all the values in the local files and can be run together with the backend side on the same server instance. Therefore, it was decided to migrate to SQLite and use it at least for the initial fundraising campaigns when the estimated number of concurrent users will be low. Nevertheless, the estimated number of maximum users up to which SQLite should provide good reliability is 100,000 users per day, and this number was provided by the authors of the SQLite themselves (SQLite, n.d.). These numbers are way higher than the estimated numbers of users in the first campaigns of the platform in this particular case.

3.2.4 Database structure

In general, databases were designed in such a way to store data from recipients and from donors. There are 4 tables in total:

- 1) Recipients table stores the data of the patients and the running campaigns
- 2) Transactions table stores all the information about donations
- 3) Comments table stores the comments (words of support and encouragement) and information about them
- 4) Files table is used to store the patient files (such as photos) and links to them

The tables and their fields (columns) with descriptions are shown in Table 3.1:

Table 3.1: Database tables, fields, and their descriptions

Table	Field	Type	Description
Recipients	Id	Numeric	Unique identifier of a patient
	IsActive	Boolean (True/false)	Whether the campaign is active or not
	FirstName	Text	First name of the patient
	LastName	Text	Last name of the patient
	Story	Text	Medical story of the patient, description of the campaign

	AmountRequired	Numeric	Total amount that needs to be raised for this campaign
	AmountCollected	Numeric	Amount that was collected up to now
	NumberOfDonations	Numeric	Total number of donations made for this campaign
	PostDate	DateTime	Date of publishing of this campaign
	PostDateToShow	Text	Date of publishing presented in a readable text format
	DueDate	Text	Due date for the campaign presented in a readable text format
	Address	Text	Address of the patient
	Appraisal	Text	Appraisal words from the patients for finished campaigns only
Transactions	Id	Numeric	Unique identifier of a transaction
	Amount	Numeric	Amount donated for this transaction
	PostDate	DateTime	Date of the transaction
	PostDateToShow	Text	Date of the transaction presented in a readable text format ('X days ago')
	DonatorName	Text	Name of the donor
	RecipientId	Numeric	Identifier of the patient that will receive this donation
Comments	Id	Numeric	Unique identifier of a comment
	SenderName	Text	Name of the donor who left a comment
	Text	Text	The value of the comment (the comment itself)
	PostDate	DateTime	Date of the comment
	PostDateToShow	Text	Date of the comment presented in a readable text format ('X days ago')
	RecipientId	Numeric	Identifier of the patient to whom the comment was addressed
Files	Id	Numeric	Unique identifier of the file
	Name	Text	Name of the file
	StorageName	Text	Name of the file on the server (unique name)
	Url	Text	Link to the file
	RecipientId	Numeric	Identifier of the patient to whom the file is related

Each of the fields in these tables is required for the platform and has its own purpose. Some of these fields are collected directly, while some others are calculated or generated,

such as collected amount. Some of the fields are needed for increasing the usability and user-friendliness of the platform, such as text representations of the dates.

An example of how values are stored in the databases is shown in Figure 3.9. It shows a donation of 2000 tenge to a recipient with an ID of 1. The transaction was made on 13 October 2022 while the text representation shows how much time ago it was made relative to the current moment.

	Id	Amount	PostDate	PostDateToShow	DonatorName	RecipientId
	Filter	Filter	Filter	Filter	Filter	Filter
1	1	2000	2022-10-13 21:15:07.7392283	4 months ago	Azamat	1

Figure 3.9: Example entry in the Transactions Table

3.2.5 Server-side technologies

For the server side, an Application Programming Interface (API) was developed. It holds most of the logic of the application. Its main purpose is to get data from the database and then send it to the client side. The data will be then visible to the platform users on the website pages. While interacting with the database, server can also manipulate the data to turn it into a new format. For example, the server calculates how much time has passed from the publication date to show it in a new format 'X days ago' which will be presented in the field. Server calculates the collected amount and counts the number of donors too.

There were other alternatives for building the server-side architecture. For example, it is possible to extract data from the database without API by directly making calls from the client side. However, API allows the code to be reusable again by other client applications. For instance, it will be possible in the future to have mobile applications both for iOS and Android to use the existing API and display data there. There will be no need to rewrite the logic of the application. Therefore, the choice of API comes down to the future extendibility of the platform.

For the server technology, we used ASP.NET Web API (Microsoft, n.d.-b). It is a framework for creating web APIs based on the .NET Core software framework. The API is written using the C# programming language.

ASP.NET framework has following features:

- 1) Free and open source.

- 2) Can work on multiple platforms such as Windows and Linux.
- 3) Has a set of convenient libraries for working with databases.
- 4) Integration with testing tools such as Swagger

The second feature is important because it allows the server API to be run on any server with Linux. This is cost saving since Linux servers tend to be cheaper compared to Windows servers. In addition, ASP.NET is one of the most popular web development frameworks because of its reliability and performance.

3.2.6 Server-side architecture

The API allows us to do different operations with data such as creating, retrieving, updating, and deleting entries in the database. There are 4 different controllers each having own set of methods that do a certain operation. The structure is very similar to the database structure because each controller is tied to the corresponding table in the database:

- 1) Recipient Controller is responsible for all operations with creating, retrieving, updating, and deleting information about recipients,
- 2) Transaction Controller is responsible for conducting operations related with transactions,
- 3) Comment Controller is responsible for conducting operations related with comments,
- 4) Recipient File Controller is responsible for handling file operations.

The methods in the Recipient Controller are shown in Figure 3.10 as they are presented in the Swagger testing tool. By using the URL links for each method, the client can do certain operations. There is one method for adding and one method for deleting recipient entry from the database. It is possible to retrieve information for all patients, as well as a certain patient only based on his/her ID. There is also a feature of making the recipient inactive, for example, when the required amount was collected.

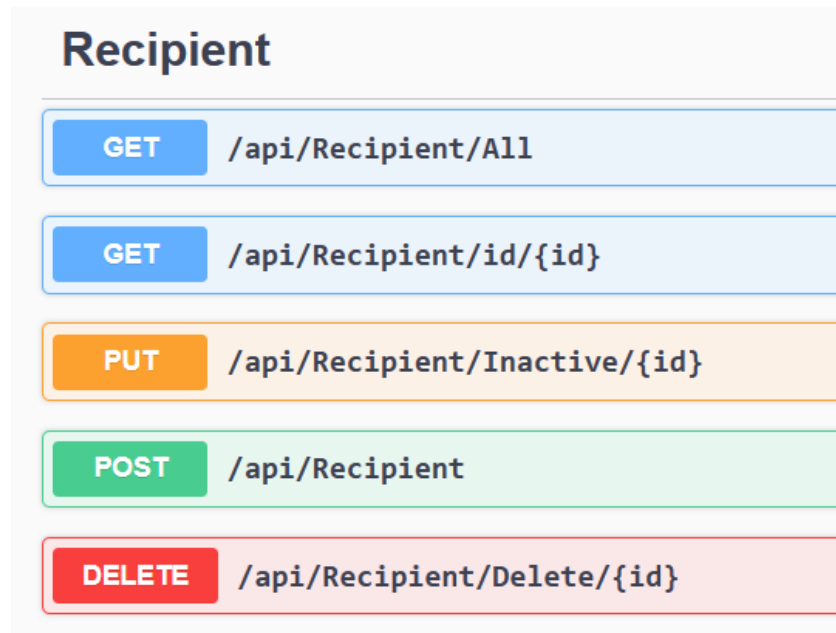


Figure 3.10: Structure of the Recipient Controller

The operations in the Transaction Controller and Comment Controller are shown in Figures 3.11-3.12. They are very similar to the structure of the Recipient Controller, except for the update method which allows to update any information regarding a certain transaction, or a comment based on their unique ID.

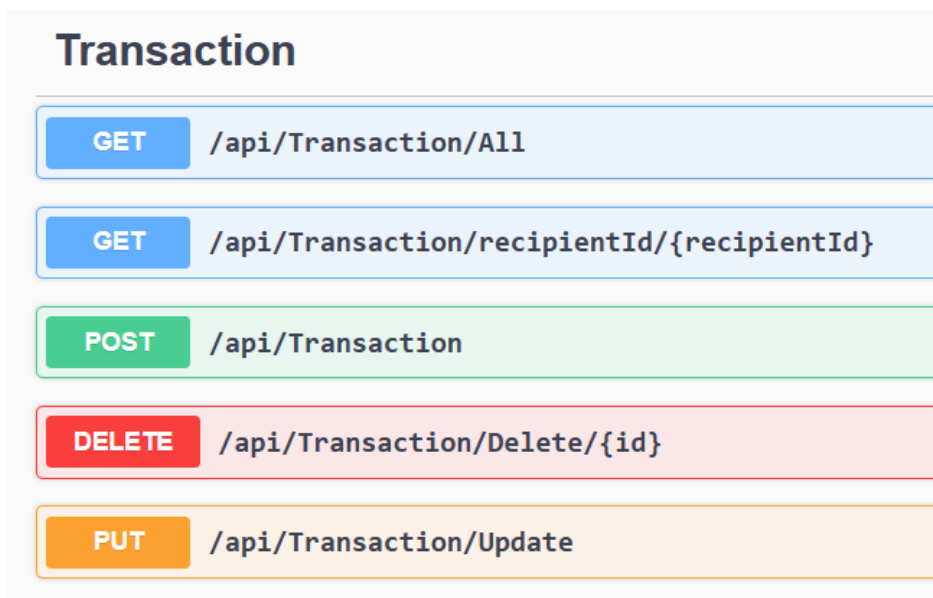


Figure 3.11: Structure of the Transaction Controller

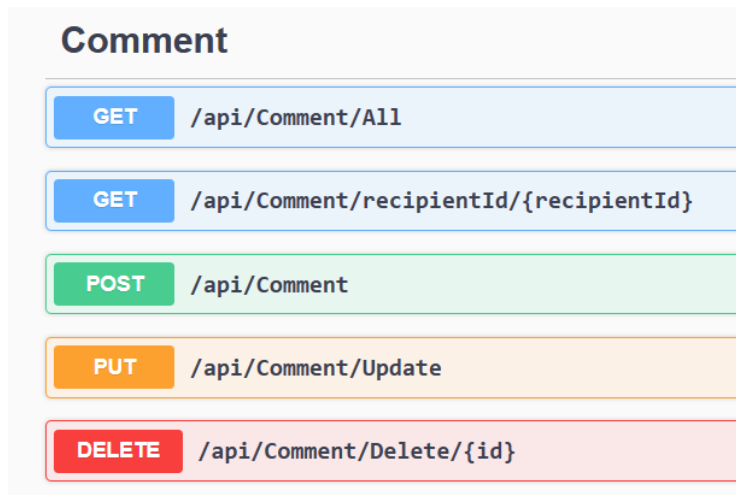


Figure 3.12: Structure of the Comment Controller

For the Recipient File Controller, structure is shown in Figure 3.13. It is only possible to retrieve information about files, add and delete files from the server.

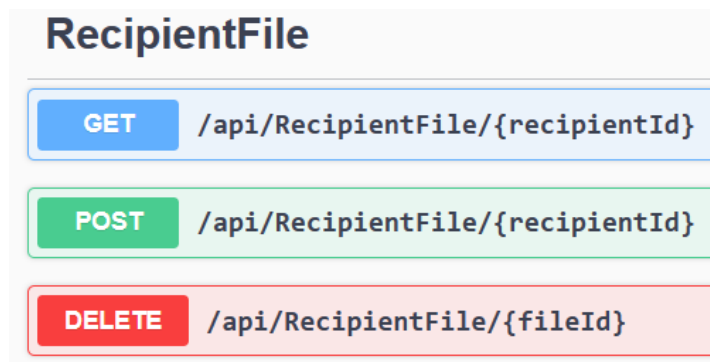


Figure 3.13: Structure of the Recipient File Controller

An example code of a method from the Recipient Controller that retrieves all active recipients is given in Figure 3.14:

```
[HttpGet("All")]
0 references
public async Task<ActionResult<List<Recipient>>> GetAll()
{
    var recipients = await _context.Recipients.Where(x => x.IsActive == true).ToListAsync();

    foreach (var recipient in recipients)
    {
        var transactions = await _context.Transactions.Where(x => x.RecipientId == recipient.Id).ToListAsync();

        recipient.AmountCollected = transactions.Sum(x => x.Amount);
        recipient.NumberOfDonations = transactions.Count();

        await _context.SaveChangesAsync();
    }

    return await _context.Recipients.Include(x => x.Files).ToListAsync();
}
```

Figure 3.14: GetAll method for recipients

This method's routing in the end (“/All”) indicates that it retrieves data for all recipients. This method first retrieves the information about the recipients. Then it updates the information about their number of donations and collected amount in the database. The information is then returned together with the information about the files for this particular recipient. This is an example of how API can be helpful in doing additional transformations of data before retrieving it.

Next is an example of a method that adds information about a transaction to the database in the Figure 3.15:

```
[HttpPost]
0 references
public async Task<ActionResult<List<Transaction>>> AddTransaction(CreateTransactionDto request)
{
    var r = await _context.Recipients.FindAsync(request.RecipientId);
    if (r == null) { return NotFound(); }

    var transaction = new Transaction
    {
        Id = request.Id,
        DonatorName = request.DonatorName,
        PostDate = DateTime.Now,
        Amount = request.Amount,
        RecipientId = request.RecipientId,
        Recipient = r
    };

    r.AmountCollected += transaction.Amount;
    r.NumberOfDonations++;

    if (r.AmountCollected >= r.AmountRequired)
    {
        r.IsActive = false;
    }

    await _context.Transactions.AddAsync(transaction);

    if (request.Comment.Length > 0 && request.Comment.Any(char.IsLetterOrDigit) && request.Comment.ToLower() != "string")
    {
        var comment = new Comment
        {
            SenderName = request.DonatorName,
            Text = request.Comment,
            Recipient = r,
        };

        await _context.Comments.AddAsync(comment);
    }

    await _context.SaveChangesAsync();

    return await _context.Transactions.ToListAsync();
}
```

Figure 3.15: AddTransaction method

This method first checks if the recipient to whom donation is addressed to exists. After that, it creates a new transaction, updates the information regarding collected amount and number of donations for the campaign and then adds it to the database. In addition, it also checks if a comment exists. If it does, then it creates a new comment entity and adds it to the corresponding table in the database. This method is an example of how a server can check the input information for its validation in order to reduce the probability of errors and troubles with user experience.

Therefore, the server side allows us to add additional logic to the operations related with data such as data validation and data transformation. This also puts some load from the client devices to the server meaning that the web platform will be more suited for low-end devices and will load quicker.

The data retrieved by the server-side is sent to the client side in the JSON format (Figure 3.16). Such response can be then retrieved by the client side which makes a request when loading a page. The response contains all the values for the fields from the Transactions table for this particular entity.

```
{
  "id": 15,
  "donatorName": "Азамат",
  "postDate": "2023-02-02T10:31:46.7243595",
  "postDateToShow": "1 месяц назад",
  "amount": 5000,
  "recipientId": 2
},
{
  "id": 16,
  "donatorName": "Асанали",
  "postDate": "2023-02-02T10:32:28.1189423",
  "postDateToShow": "1 месяц назад",
  "amount": 80000,
  "recipientId": 2
},
{
  "id": 17,
  "donatorName": "Нурхан",
  "postDate": "2023-02-02T10:33:30.2801623",
  "postDateToShow": "1 месяц назад",
  "amount": 12000,
  "recipientId": 2
},
}
```

Figure 3.16: Example of a JSON response from Transactions table

3.3 Implementation of features

In this subsection the features that were implemented in the platform will be presented and discussed. These features were found from the literature and are aimed at building trust among donors both for the platform itself and the beneficiary.

Regarding the content on the platform and the features, there are two main categories of the features from the literature: content and interactions. The first category is related to all the content placed on the platform, including text, images, videos, etc. The second category is related to the interactions between donors and the platform managers, between donors themselves and between donors and the beneficiaries.

3.3.1 Content

Content is the only website-related factor that positively affects trust in the platform (Kuchler et al. 2020). Other factors such as usability and aesthetics also played a role, but it was insignificant compared to the content.

3.3.1.1 Patient-related information

One of the most important features was beneficiary-related information richness. This includes personal story, medical diagnosis and medical history of the patient, medical documents, if possible, and other elements describing the campaign. A plethora of studies indicate that the provision of comprehensive information pertaining to the beneficiary and the campaign fosters a positive correlation with the generation of trust (Hou et al., 2021; Zhang et al., 2021a; Wu et al., 2022; Huang et al., 2021). The reason for this is that website visitors lack the ability to personally authenticate diagnoses and other medically related information, necessitating reliance on data furnished by beneficiaries. Consequently, a surfeit of detailed information concerning a beneficiary's condition and related circumstances increases the likelihood of donor receptivity, given the positive effect on the degree of information available for perusal. The formation of trust in a campaign necessitates a cognition-based approach, whereby users are required to analyze and evaluate the provided facts and information in order to make informed decisions on whether to donate or not (Zhang et al., 2021a).

The information regarding the beneficiary must not just be rich in nature, but also good-quality, honest and transparent (Moysidou & Hausberg, 2020; Snyder et al., 2016; Zhang et al., 2022). Failure to provide honest information may result in a bad influence on the reputation of the beneficiary and the platform, as a result, eliminating the trust built previously.

In addition to that, it is beneficial to create emotional and compelling stories. They will be able to cause emotions from the readers, and more importantly, cause their willingness to donate. For example, it is recommended to create emotional stories about the beneficiary (Ferreira et al., 2022). Affect-based trust (trust based on emotions) is also important in creating desire to donate along with cognition-based trust (Zhang et al., 2021a).

An example of such a story that was added to the platform is shown in Figure 3.17. This is a component of the patient page with the campaign. Here this story contains all the

necessary information about the diagnosis, the medical history, what the money will be spent on and some other details about the patient. The story contains phrases emphasizing the difficulty of the condition of the patient (“This is a difficult time for our family”) to create the emotional component. This section also includes the contact details and publication date.

Yerassyl's story

My son is experiencing several medical issues, including fluid accumulation in the head, a cyst, and increased hypoxia. These conditions have resulted in hearing problems and disorders related to the folate cycle. Despite our efforts to manage his treatment, we have been unsuccessful in finding a cure for him, leading us to take him to St. Petersburg three times at a cost of 2 million tenge per trip in the hopes of finding a solution. Unfortunately, at seven years old, he still does not attend school due to his inability to speak and perceive information correctly. His developmental progress has been limited to that of a three-year-old, and he has experienced convulsions over five times before this age. He may also have focal epilepsy, and an endocrinologist has diagnosed him with empty sella syndrome. In addition to my eldest son's medical challenges, my younger children also require ongoing medical attention. My second son has speech problems, and the youngest is suspected of having primary immunodeficiency. Therefore, they require constant monitoring and rehabilitation by medical professionals.

If you require any campaign-related documents, please contact our [support team](#)

Show less



Figure 3.17: Example of emotional story and information richness

```

378
379
380 <div className='show-org-info'>
381   <ColoredLine2 color="red" />
382   <div className='show-contacts'>
383     <div style={{ borderTop: "2px solid #fff", marginLeft: 20, marginRight: 20 }}></div>
384     <button onClick={handleClick} className='show-contacts-button'>Контакты организатора сбора</button>
385   {isShown && (
386     <div>
387       <h2 className='show-contacts-information'>Сбор организывает Алексей (ewkere.kz)</h2>
388     </div>
389   )
390 }
391 <ColoredLine1 color="red" />
392 </div>
393
394 <div className='history-anna'>
395   <h2 className='story-tag'>История Анны</h2>
396   <div className='text'>
397     <p>Всем привет, меня зовут Алиса, у меня нет привычки просить о помощи, но она нам сейчас очень нужна.
398     26 сентября 2022 года мы узнали, что моя дочь Анна, в возрасте 7 с половиной лет, больна лейкоемией.
399     Для начала нам нужно пройти курс химиотерапии, которая занимает больше месяца. И мы не знаем сколько
400     этих курсов надо получить чтобы был хотя бы минимальный положительный эффект. Это трудное время для родителей и для нас.
401     Каждое небольшое пожертвование будет высоко оценено в это трудное время для нас. Собранные деньги будут использованы для
402     оплаты курсов лечения и анализов. Большое спасибо за вашу поддержку в этом тяжелом испытании, которое потрясло всех нас.
403   </p></div>
404 </div>

```

Figure 3.18: The React code of the patient story

For displaying the contacts of the crowdfunding initiator (yellow button), we have created a button function with the class name “show-contacts-button” (Figure 3.18). In line 384, `OnClick = {}` command allows to activate button to display the information stored in the heading, line 387, with the class name “show-contacts-information”. The story of the patient is stored in the section with the class name “text”, line 397.

Many of the fields in the database are aimed at adding richness to the information about the campaign. They include fields such as Address, Story, FirstName, LastName, AmountRequired and PostDate. The main field here is the Story which contains most of the information about the condition of the patient.

3.3.1.2 Gain-framed messages

Many studies also recommend using gain-framed messages instead of loss-framed ones (Wu et al., 2022). This means using phrases such as “You will save a child’s life” rather than “Don’t let my child leave this place so early”. It was shown that gain frame is more efficient to creating intentions to act, which is donation in this case.

In Figure 3.19 there is an example of a gain-framed message. It uses phrases that note how donations can help the patient (“Any small donations will be appreciated”, “Thank you all for the support”). These phrases show the reader that by helping he/she will gain something (which is appreciation in this case) rather than not letting the patient lose something.

Another example of such gain frame or positive wording is available on the main page. There is a section dedicated to inviting friends to donate. It is shown in Figure 3.19. In

this section we use the phrase “Make the world a better place”. This means that by inviting friends to the platform the user will be able to make a positive impact on the world.

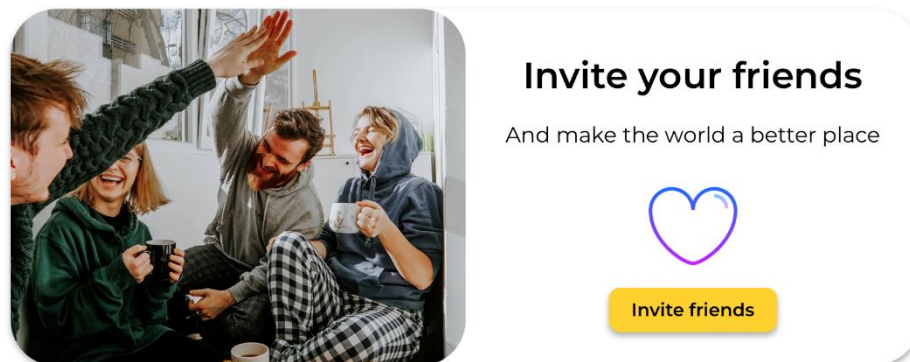


Figure 3.19: Example of a gain-framed message in the invite section of the main page

3.3.1.4 Emotional photos and videos

Media is also important to create emotional and compelling stories. Many authors recommend including emotional photos and videos (Ferreira et al., 2016; Snyder et al., 2016). They have additional impact on causing emotions in the website visitors and creating affect-based trust. In addition, there were studies aimed at determining what types of pictures are better for the platform. It was found experimentally that the best result is achieved by the pictures showing the pediatric patient alone and the pictures depicting the severity of the condition rather than the pictures where the patient is in a good condition (Ren et al., 2020).

An example of such picture is included in the platform both on the main and patient pages. It is shown in Figure 3.20.

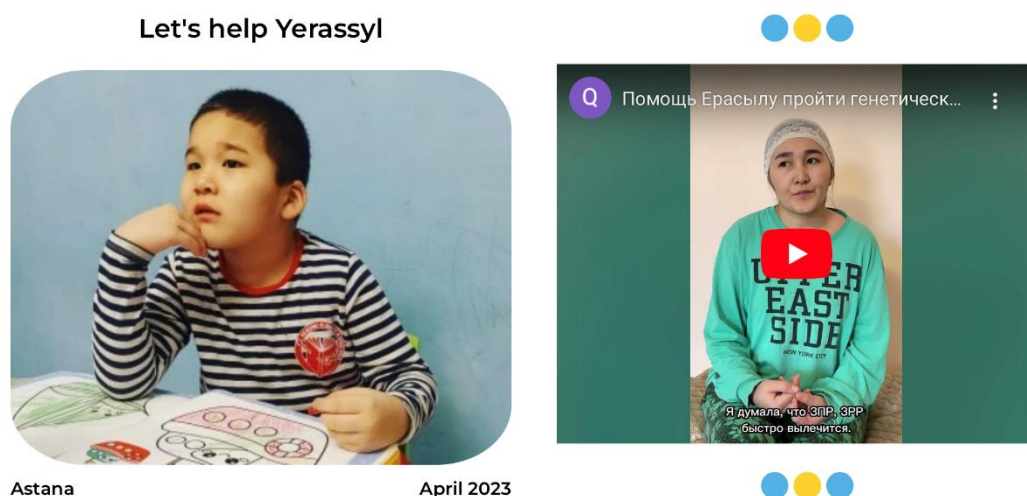


Figure 3.20: Example of an emotional photo and video

```

patient.jsx
src > components > pages > patient > patient.jsx > Patient2
329 useEffect(() => {
330   Lyracs()
331 }, []);
332
333 return (
334
335   <div className='patient-container'>
336     <Navbar></Navbar>
337     <div className='wrapper'>
338       <div className='column1'>
339         <h3 className='tag' >Подарите второй шанс Анне</h3>
340         <img className='pimage' src={imageNew}</img>
341
342         <div className='numberview-cl'>
343           <img className='eye' src={eye}</img>
344           <div className='numberview'>просмотров</div>
345         </div>
346         <div className='city-date-info'>
347           <h5>Петропавловск</h5>
348           <h5>Сентябрь 2023</h5>
349         </div>
350
351

```

Figure 3.21: The React code of a patient image

As it is illustrated in Figure 3.21, the patient image is placed in line 340 with the class name “pimage”. The source of the image is a command that links to the path from which the image was imported. Also, the city of a patient along with the date of the beginning of the campaign was also displayed. The section, line 364, that starts with the class name “city-date-info” contains the headings of the city and the beginning of the crowdfunding event.

The table of recipient files in the database is needed to allow the beneficiaries to include many emotional photos of themselves. The following code shows the functionality for uploading files on the server (Figure 3.22). First it verifies whether the recipient exists in the database. Then it creates a new entity for the file, assigns all of its properties, saves it on the server with a new unique name, creates a link for it and adds all of the related information to the database. When extracting data for the patient, the data for his/her files is also extracted. This includes links to the images as shown in Figure 3.23. The client can then use these links to display images on the website.

```

[HttpPost("{recipientId}")]
0 references
public async Task<ActionResult<RecipientFile>> UploadFile(IFormFile file, int recipientId)
{
    var r = await _context.Recipients.FindAsync(recipientId);
    if (r == null) { return NotFound(); }

    var storageName = Guid.NewGuid() + Path.GetExtension(file.FileName);
    var recipientFile = new RecipientFile
    {
        Name = file.FileName,
        RecipientId = recipientId,
        StorageName = storageName,
        Url = @"https://qaiyrymapi.com/" + storageName,
        Recipient = r
    };

    FileProcessor.SaveFile(file, recipientFile.StorageName);

    await _context.Files.AddAsync(recipientFile);
    await _context.SaveChangesAsync();

    return recipientFile;
}

```

Figure 3.22: UploadFile method

```

"files": [
  {
    "id": 3,
    "name": "child-pic.webp",
    "storageName": "35c6beb2-72dc-4847-b8a9-326252376c4d.webp",
    "url": "https://qaiyrymapi.com/35c6beb2-72dc-4847-b8a9-326252376c4d.webp",
    "recipientId": 2
  },
  {
    "id": 4,
    "name": "document1.webp",
    "storageName": "1c5f9c77-37a7-4043-897a-31d2f8a06baf.webp",
    "url": "https://qaiyrymapi.com/1c5f9c77-37a7-4043-897a-31d2f8a06baf.webp",
    "recipientId": 2
  },
  {
    "id": 5,
    "name": "document2.webp",
    "storageName": "97445cb1-7534-479e-b8f5-96c28473ce6f.webp",
    "url": "https://qaiyrymapi.com/97445cb1-7534-479e-b8f5-96c28473ce6f.webp",
    "recipientId": 2
  }
]

```

Figure 3.23: JSON response from the server containing links to the recipient files

3.3.1.5 Platform-related information richness

The studies also pay a lot of attention to the availability and richness of the information about the platform and fundraising in general. Ferreira et al. (2016) state that it is important to have clear information about the platform on the website. In addition, it is also recommended to have education about crowdfunding in general in some form. This allows us to create trust towards the platform and fundraising in general. People will have a better understanding on how platform operates, its main functions, purposes, the

selection process for the beneficiaries as well as the payment processes. Thus, they will trust the platform more and will be more likely to donate on the platform.

For these reasons, we added two more sections to the main page. The first one contains some educational information about Qaiyrym platform. It is shown in Figure 3.24 and is presented in the form of answers to popular questions that may arise. The second section has an informational video about the platform where the two managers (two of the authors of this project) are presenting a description of the platform, stating its goals and objectives, and are explaining how it operates. The video also contains instructions on how to properly use the platform and make payments. This section is shown in Figure 3.25.

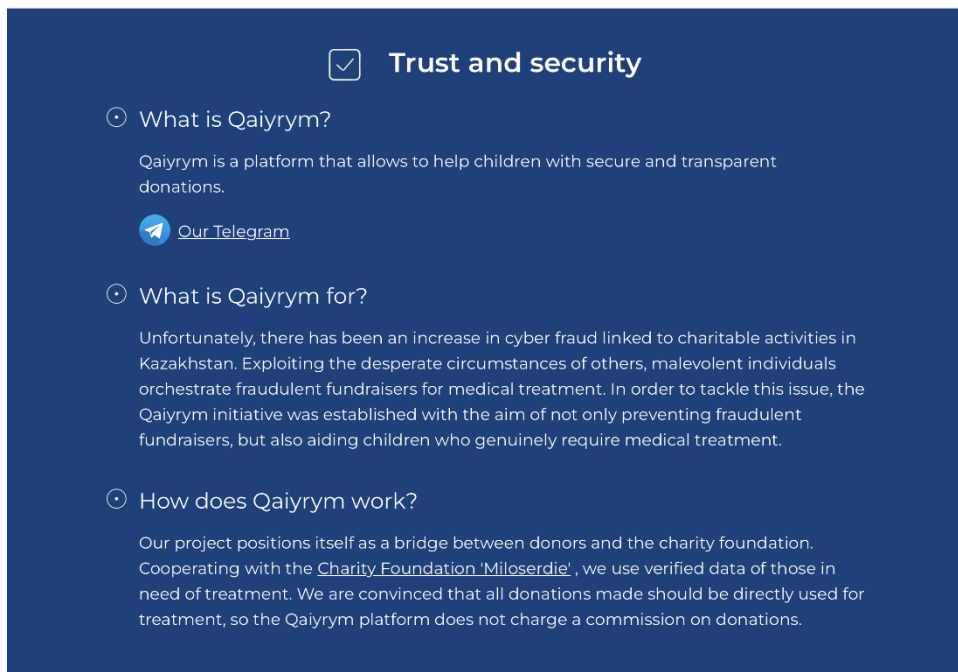


Figure 3.24: About section on the main page

Project Qaiyrym



Figure 3.25: Video section on the main page

```

140 <div className='about-background'>
141   <section id='about'>
142     <div className='about'>
143       <h1><img src='{tick}' width='40px'></img> Доверие и безопасность</h1>
144       <div className='about-list'>
145         <img src='{circle}' width='30px'></img>
146         <div className='about-paragraph'>
147           <h3>Что такое Qaiyrym?</h3>
148           <p>Qaiyrym - платформа, позволяющая безопасными и прямыми переводами внести вклад в леч
149         </div>
150         <img src='{circle}' width='30px'></img>
151         <div className='about-paragraph'>
152           <h3>Зачем нужен Qaiyrym?</h3>
153           <p>
154             К сожалению, в Казахстане распространяется кибер мошенничество связанное с благотвори
155           </p>
156         </div>
157         <img src='{circle}' width='30px'></img>
158         <div className='about-paragraph'>
159           <h3>Как работает Qaiyrym?</h3>
160           <p>
161             Наш проект позиционирует себя мостом между донорами и благотворительным фондом Милосе
162           </p>
163         </div>
164       </div>
165     </div>
  
```

Figure 3.26: The React code of About section

The about section begins in line 140 of Figure 3.26. Three paragraphs have been inserted into the about section. The paragraphs use the `<p>` command to start the paragraph and end it by using `</p>`. In general, besides of inserted text, the about section does not contain any function.

```

129     </div>
130 </div>
131 <div className='maincard-videos'>
132   <h1>Проект Qaiyrym</h1>
133   <ColoredLine color='red' />
134   <div className='video-player'>
135     <ReactPlayer
136       url='https://www.youtube.com/watch?v=V5KjsM4Ho9c'
137       controls={true}
138       className='youtube-player'
139     />
140   </div>
141 </div>

```

Figure 3.27: The React code of media player

For displaying a video from YouTube video hosting, a special package has been downloaded from the npm.js library called “React Player” (Figure 3.27). The React Player allows playing any video just by inserting the link address of the video. The section with class name “maincard-videos”, line 131, wrapped to itself a React Player library, lines from 135 to 139.

3.3.1.6 Partners with good reputation

Furthermore, some studies recommend explicitly including information about the partners and supporters of the platform. According to Ferreira et al. (2016) it is important to include information about partners and supporters with good reputation. This will create additional credibility for the platform.

The sole supporting organization of our platform is the Miloserdie Fund, a foundation with a notable track record of assisting numerous children over several years. Its widespread recognition in the media and online is evidenced by frequent stories featuring the organization. Consequently, an additional section on the main page was created to provide information on the Miloserdie Fund as the supporter of the Qaiyrym platform, as depicted in Figure 3.28. The section's heading explicitly states that the Miloserdie Fund assists Qaiyrym in charitable activities, and includes the organization's name, logo, and key platform statistics such as the amount of money raised, year of foundation, and number of children assisted. This feature enhances the platform's credibility, and the included link to the organization's website enables users to access further information on the fund.



Figure 3.28: Section with supporting organizations on the main page

```

169     <section id='partners'>
170       <div className='partners-section'>
171         <h1>Содействие в благотворительной деятельности</h1>
172         <div className='partner-card'>
173           <div className='partner-info'>
174             <h2>Добровольное общество Милосердие</h2>
175             <ul>
176               <li>Фонд работает с 2006 года</li>
177               <li>Собрано около 5 млрд тенге</li>
178               <li>Помогли более 2 тысячам детей</li>
179             </ul>
180             <div className='partner-link'>
181               <p><a href='https://detdom.kz/' target='_blank'>Перейти на сайт</a></p>
182             </div>
183           </div>
184           <div className='partner-logo'>
185             <img src={miloserdie}></img>
186           </div>
187         </div>

```

Figure 3.29: The React code of the supporting organization section

In terms of the written code for the user interface, Figure 3.29, the supporting organization section contains information regarding the Miloserdie fund. The function of a button that redirects a user to Miloserdie’s website has been inserted into the supporting organization section. In line 181, the link to the website to which a user will be redirected is wrapped by the class name “partner-link”. So, as only the user presses the button, he or she will be redirected to the fund’s website.

3.3.2 Interactions

In the interactions section, there is significant research into the impact of peer influence on the amount of funds raised. According to Huang et al. (2021), some users found that they believe certain campaigns because their friends and acquaintances believed in them. The basis for their trust in the beneficiary was not the trust in the campaign, but peer influence from people they know who already donated. Hou et al. (2021) note that people often tend to follow other people’s behavior and that this can be used in donations too. Saxton & Wang (2014) state that the key to success in fundraising is how many people

will spread the message and try to convince their friends to donate as well. In addition to that, peer influence impacts the level of enjoyment donors experience when helping others (Hou et al., 2021).

3.3.2.1 Amount donated and number of donations

Peer influence can be created and enforced in many different ways. Several studies recommend adding visual representation of how many people have donated and the total amount raised (Hou et al., 2021; Ferreira et al., 2022; Zhang et al., 2021a). This feature was implemented to our platform. The fields `NumberOfDonations` and `AmountCollected` in the `Recipients` table are responsible for storing such information. The code adding transactions to the database is also responsible for updating those two fields (Figure 3.30)

```
r.AmountCollected += transaction.Amount;  
r.NumberOfDonations++;
```

Figure 3.30: Increasing collected amount and number of donations in AddTransaction method

There is a section on the patient page with such information. The block with the total amount raised and the number of donations is shown in Figure 3.31. In this example there are 11 donations in total, and 500 500 tenge out of 2 100 000 tenge were collected. By seeing that several people have already donated, and that there is still some amount needed to donate, it is possible that the willingness to donate will be created. In addition, users will be able to see the impact of their donations when the total collected amount increases on the website.



Figure 3.31: Block with collected amount and number of donations

```

437
438
439 <div className='patient-card-2'>
440   <h3 className='donations-card-2'>Пожертвования {donators}</h3>
441   <div className='donor-name-amount-2'>
442     {users && users.map((user) => (
443     <div>
444
445       <ul className='donor-name-amount-details-2'>
446         <img src={commentIcon} className='commenticon-2'></img>
447         <div className='donatorname-2'>{user.donorName}</div>
448         <div className='money-time'>
449           <div className='donator-money-2'>₸{user.amount.toLocaleString()}</div>
450           <div className='donatortime-2'>{user.postDateToShow}</div>
451         </div>
452         <ColoredLine3 color="red" className='line-donate' />
453       </ul>
454     </div>
455     ))
456   </div>
457 </div>
458

```

Figure 3.32: React code for block with collected amount and number of donations

For creating a block with the collected amount and a number of donations feature, JavaScript's map function has been used, line 442 (Figure 3.32). After the donor's name, time of a donation made, and amount of donation have been fetched from the server, lines 448 – 450, the map function distributes all the above-mentioned strings one after another in one column.

3.3.2.2 Words of support and encouragement

Ferreira et al. (2022) and Zhang et al. (2022) also recommend including the feature for the donors so that they will be able to express their support and encouragement. This feature was also added to the platform on the patient page right beneath the block with collected amount and number of donations. It is displayed in Figure 3.33. In this example there are 11 comments from donors. Other website visitors will be able to see these comments and experience peer influence and, thus, will be likely to have intentions to donate.

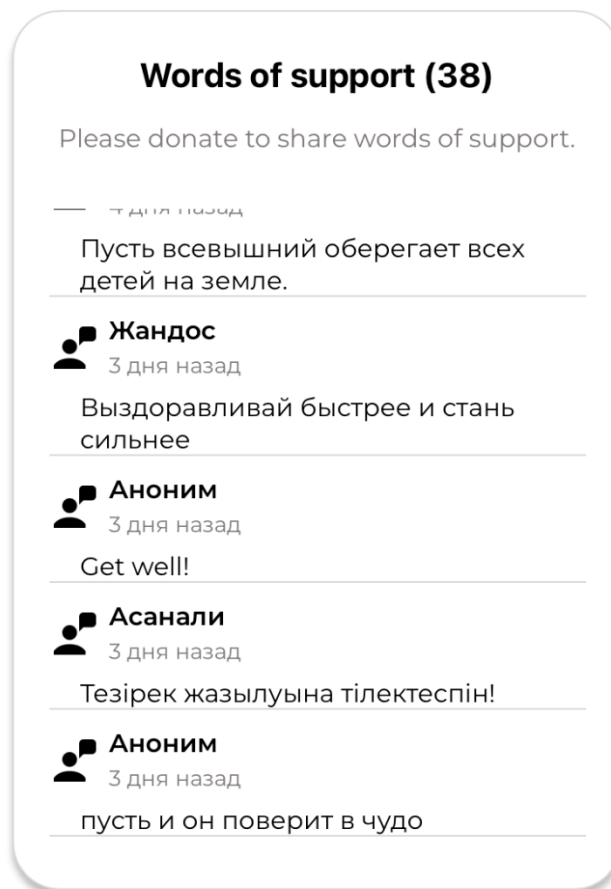


Figure 3.33: Block with support words

```

484 |
485 |     <div className='supportive-words-general'>
486 |         <div className='supportive-words'>
487 |             <h2 className='supportive-words-title'>Слова Поддержки {donators}</h2>
488 |             <h2 className='supportive-words-donate'>Пожалуйста пожертвуйте, чтобы поделиться словами поддержки.</h2>
489 |             <div className='supportive-words-list'>
490 |                 {donor && donor.map(donor) => (
491 |                     <ul className='supportive-words-details'>
492 |                         <img src={commentIcon} className='supporter-icon'></img>
493 |                         <h1 className='supportername'>{donor.senderName }</h1>
494 |                         <h2 className='supporter-time'>{donor.postDateToShow}</h2>
495 |                         <h2 className='supportercomment'>{donor.text}</h2>
496 |                         <ColoredLine4 className='line-support' />
497 |                     </ul>
498 |                 )}
499 |             </div>
500 |         </div>
501 |     </div>
502 | </div>
503 |

```

Figure 3.34: React code for block with support words

The same map function has been used for this block (Figure 3.34). However, the strings such as supporter's name, time of written support, and supporter's comments have been added, lines 493 – 495. The strings again are distributed one after another in one column.

The whole Comments table from the database is made for this feature (Figure 3.35). The code below is responsible for adding comment to the Comments table in the database:

```

[HttpPost]
0 references
public async Task<ActionResult<Comment>> AddComment(CreateCommentDto request)
{
    var recipient = await _context.Recipients.FindAsync(request.RecipientId);
    if(recipient == null) { return NotFound(); }

    var comment = new Comment
    {
        Id = request.Id,
        SenderName = request.SenderName,
        Text = request.Text,
        Recipient = recipient
    };

    await _context.Comments.AddAsync(comment);
    await _context.SaveChangesAsync();

    return comment;
}

```

Figure 3.35: AddComment method

3.3.2.3 Sharing in social media

Therefore, forwarding and sharing information with others can be extremely helpful for the fundraising campaign success. In this case, social networks are a powerful tool that can be used to distribute information about the platform and the campaigns. Ba et al. (2022) recommend actively using social media and viral content to raise awareness about

ongoing campaigns and the platform in general, thus, attracting more donations. Zhang et al. (2021a) state that social cues are important in creating both cognition-based and affect-based trust. People see that others (especially their friends) have donated and will have more trust in the campaign. Zhang et al. (2021a) also recommend incorporating share buttons (that allow sharing information in the social networks) to the web interface. Similar to them, Zhang et al. (2022) also recommend the platform managers to have the feature of sharing the campaign with friends.

This feature was added to the website. There is a share button in the navigation bar that is present in all pages of the website (Figure 3.36, highlighted in green). In addition, there is an “Invite friends” section on the main page that was shown previously in Figure 3.19. It has a share button as well. Both of these buttons will open a separate menu that is presented in Figure 3.37. This menu has share buttons for different social networks and messengers which will open the corresponding link. Below them is the copy link button which can be used to share the link in other platforms as well.



Figure 3.36: Share button in the navigation bar



Figure 3.37: Share menu with social network share buttons

In addition to the previous practical implications, Ferreira et al. (2022) note that it is important for platforms to have means of interacting with the platform managers. Users should be able to contact the platform managers in a meaningful way. For this reason, it was decided to implement the Support button in the navigation bar. It is presented in Figure 3.38 and highlighted in green. By clicking on this button, users will be redirected to the Telegram chat where they can directly talk with the manager.



Figure 3.38: Support button in the navigation bar

```

MainCard.jsx x
src > components > MainCard > MainCard.jsx > MainCard2
177     </div>
178   </section>
179 </div>
180   <div className='invite' id='invite'>
181     <div class='invite-card'>
182       <div className='invite-img'>
183         <img src={friends} width='400px'></img>
184       </div>
185       <div class='invite-info'>
186         <h1>Пригласи друзей</h1>
187         <h3>И сделай мир чуточку добрее</h3>
188         <img src={heart} width='100px'></img>
189         <div className='invite-button'>
190           <a onClick={()=>setOpenShare(true)}>Пригласить друзей</a>
191         </div>
192       </div>
193     </div>
194   </div>
195 </div>
196 <Footerf></Footerf>
197 </div>
198 </div>
199 <div>
200   <ShareMenu open={openShare} onClose={()=>setOpenShare(false)}>
201 </div>
202 </div>
203 }
204 }
  
```

Figure 3.39: The React code of the invite section

As can be seen in Figure 3.39, the code of the invite section of the main page is displayed. In line 188, the section in the page with a classname “invite” has been created. The only function inserted into the invite section is a “share to friends” button, line 190. Initially that function had to be created separately and imported to the page in which it supposed to be used. The name of that function is “copyLink”.

```

share.jsx x
src > components > ShareMenu > share.jsx > share
12 function copyLink(){
13   navigator.clipboard.writeText(shareLink);
14   alert("Ссылка скопирована");
15 }
16
17 const share = ({open, onClose}) => {
18   if (!open) return null
19   return <div className='share-background'>
20     <div className='share-container'>
21       <div>
22         <h1>Поделись</h1>
23         <button onClick={onClose} id='share-close-button'>✖</button>
24       </div>
25       <div className='share-links'>
26         <TelegramShareButton url={shareLink}
27           title={shareText}>
28           <TelegramIcon size={48} round />
29         </TelegramShareButton>
30         <WhatsappShareButton url={shareLink}
31           title={shareText}>
32           <WhatsappIcon size={48} round />
33         </WhatsappShareButton>
34         <FacebookShareButton url={shareLink}
35           quote={shareText}
36           hashtag={shareText}>
37           <FacebookIcon size={48} round />
38         </FacebookShareButton>
39       </div>
40     </div>
41   </div>
  
```

Figure 3.40: The React code of the copyLink function

The “copyLink” function copies the web address of the application, www.qaiyrym.kz, to a user’s clipboard and allows to share the copied address using social networks such as Telegram, WhatsApp, Facebook, Vkontakte, and Twitter. Initially, the “copyLink” function has been created and inserted into the share button of the invite section, Figure 3.40. As only the button is clicked, line 190 of Figure 3.39, the “copyLink” function suggests a user choose which social network users to share the copied web address.

3.3.2.4 Additional channels of information

A contributing factor in the success of overall fundraising might be notifying the users about the new campaigns. Ferreira et al. (2022) also wrote that it might be useful to have newsletters that will be sent to the registered users when the new campaigns are started. In addition, previous donors could receive announcements about the recovery of the patients to whom they have donated in the past or the medical treatment they received. This way, they will be able to see the actual impact that they created and might be motivated to do so in the future again (Ferreira et al., 2022).

For this purpose, it was decided to create a Telegram channel where such information will be posted (Figure 3.41). Users who subscribe to this channel will be able to see the information about new campaigns and some of the reports for the previous ones. In the future, the reports for finished campaigns will be placed on the website. The Telegram channel will work tightly together with the platform.

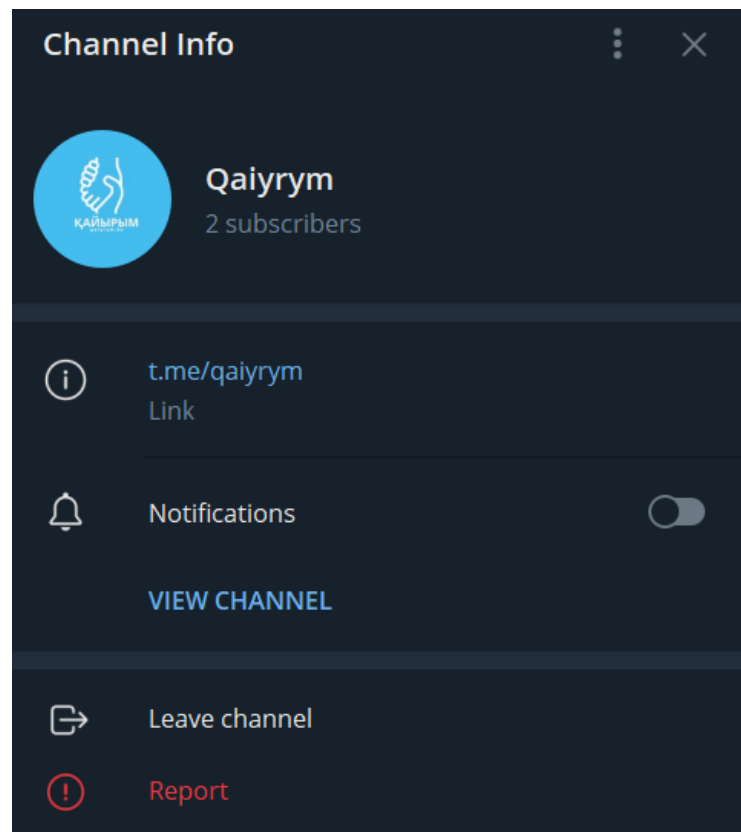


Figure 3.41: Telegram channel of the platform

3.3.3 Usability

There are some additional practical implications for the platform managers regarding the usability of the website. According to Kuchler et al. (2020) there is a certain minimum threshold for the user-friendliness of the interface. In other words, users expect the platform to be user-friendly enough so that they will not experience any troubles with using it. Ferreira et al. (2022) state that user-friendly design is important for the continued use of the platform.

In addition to that, some people reported that the process of donating is too complicated (Creative Science Fundraising, n.d.). Some of the features described previously were aimed at reducing the number of clicks and time that the user spends before donating or sharing the message in social networks. For example, the share buttons are redirecting to the corresponding social web service with the prepared text so that the user has just to press the Send button. The information about the platform on the main page also instructs the user on how to donate on the platform the goal of which is that he/she will spend minimum time before actually donating. There are also instructions on the patient page before the payment block.

In addition, it was decided to reduce any obstacles in the external banking applications before donating. On the patient page, there is a block with payment information and Donate button (Figure 3.42). By clicking on the button, the user will be redirected to the banking application if he/she is on a mobile platform. In addition, the card number will be copied immediately, so that the user just has to paste it, enter the sum, and click the Transfer button in the banking app.

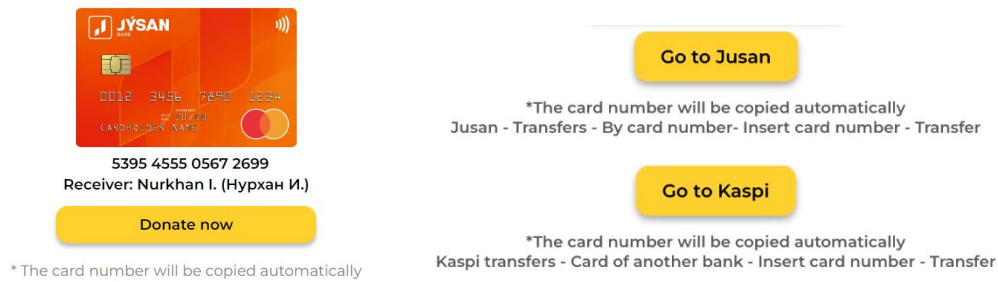


Figure 3.42: Payment block on the patient page

The code responsible for redirecting to different banking applications is shown in Figure 3.43.

```
const ToBankingApp = async () => {
  ReactGA.event(
    {
      category: "final-donate-button-click",
      action: "final-donate-button-click",
      label: "final-donate-button-click",
    });
  navigator.clipboard.writeText("5395455505672699");

  var url = 'jusan://';
  if (window.navigator.userAgent.includes("Android")) {
    url = 'intent://jusan.kz/#Intent;scheme=https;package=kz.tsb.app24;end'
  }

  window.location.replace(url);
}

const ToKaspiApp = async () => {
  ReactGA.event(
    {
      category: "final-donate-button-click",
      action: "final-donate-button-click",
      label: "final-donate-button-click",
    });
  navigator.clipboard.writeText("5395455505672699");

  var url = 'https://kaspi.kz/transfers';

  window.location.replace(url);
}
```

Figure 3.43: Functions for redirecting the user to Jusan and Kaspi apps with copying card number

3.4 Case

To assess the efficacy of the platform, a pilot launch is conducted. The primary target audience for testing the minimum viable product (MVP) consisted of faculty, students, and staff at Nazarbayev University. The platform is launched through two channels: promotion on social media platforms such as Instagram, Telegram, and WhatsApp by the enthusiastic team members and volunteers, and a special event on the university campus that introduced the developed website to the attendees present in person. In Telegram, the messages were promoted in the University chats with thousands of subscribers who are active students. The launch also included a fundraising campaign for Yerassyl Tumanov, who is diagnosed with childhood autism, empty sella syndrome, and focal epilepsy. The campaign aimed to collect 255,000 tenge to support Yerassyl's genetic testing. This section of the report discusses the pre-launch activities, the platform launch, and the post-launch activities, all of which are conducted during the case.

3.4.1 Pre-launch activities

As an initial measure towards launching the platform, a mutual agreement is established with the "Милосердие (Miloserdie)" charitable foundation, which entailed the definition and description of various commitments from both parties (refer to Appendix B). The agreement stipulated that the charitable organization is obligated to furnish the contact information of beneficiaries from their database, grant permission for utilizing the fund's logo, name, and information from their website for the purpose of promoting the platform and generate a report on the expenses incurred by the transferred amount to the fund from the platform initiators. In contrast, the platform initiators are required to provide the date of the donation transfer and ensure that the entire accumulated amount is delivered to the fund.

Upon obtaining the beneficiary's contact information, a subsequent agreement is executed, wherein Yerassyl's mother, Aklima Tumanova, explicitly granted permission for fundraising activities in support of their cause (Appendix C). Several photographs and interview videos featuring Yerassyl and Aklima are also captured for uploading onto the platform.

In order to enhance the comprehensiveness of information pertaining to the platform, a video was created, which offered an exhaustive account of the project. This video explained the reasons for the initiation of the project, elucidated the issues it aimed to

address, and provided detailed instructions to potential donors on how to contribute and support the campaign (Omarov et al., 2023). The video is subsequently uploaded onto the main page of the website for easy accessibility to users.



Figure 3.44: Poster designed for online promotion

Upon setting up all essential content and information on the platform, preparations were initiated for the launch of the platform. In order to promote the platform on social media platforms, aesthetically appealing posters were designed, which included key information about the platform and persuasive calls to action (Figure 3.44). For organizing the launch event, the requisite permissions were obtained from the University administration to conduct the event in the most accessible area of the campus. Additionally, a projector with a screen was reserved, and a banner was designed and ordered to ensure that the event was conspicuous to passersby, featuring comprehensive details about the platform. Furthermore, four varieties of stickers in Figure 3.45 were devised and printed as tokens of appreciation to be given to donors along with candies and cookies.



Figure 3.45: Stickers designed for platform promotion

3.4.2 Platform launch

The launch of the platform commenced a day prior to the event through social media platforms, wherein the sharing poster was accompanied by a link to the developed platform. This decision was taken with the intention of testing the platform in smaller groups and assessing its efficacy in communicating its values to users. Following the receipt of preliminary feedback from donors, the platform was subject to certain improvements, which were implemented to prevent subsequent donors from encountering similar issues and obstacles.

The subsequent day, a physical event was held, albeit not attaining the level of success anticipated by the team. This was largely attributable to the concurrent organization of a charity garage sale event, which was situated merely 20 meters away from the platform launch. This factor significantly impacted on the launch of the platform, as most passersby were drawn towards the garage sale event and failed to notice or attend ours. Consequently, the fundraising campaign yielded a total of approximately 20% of the targeted amount.

Upon reflection, our team acknowledged that the previous event was not as successful as expected due to the presence of a competing charity garage sale nearby during the charity week. To rectify this issue, a subsequent event was organized in collaboration with the university CDF club as depicted in figure 3.46, which enabled the successful achievement

of the fundraising goal by collecting and exceeding the total amount needed for the cause (CDF, 2023).



Figure 3.46: Event organization with CDF club

3.4.3 Post-launch activities

Upon achieving the intended fundraising objective, the platform's donation feature is constrained and replaced with a notification indicating that the financial goal has been met. A novel component is integrated into the patient's page, which serves as a repository for all related documents, such as reports, bank statements, and updates (Appendix D). The collected sum is then seamlessly transmitted to the designated account of the charitable fund, while any surplus funds are allocated to support other fundraising initiatives under the auspices of the charitable organization.

3.5 Metrics and feedback survey

In this section the metrics used to measure the success of the fundraising campaign will be discussed.

Several metrics have been selected in order to evaluate the success of the platform operation after its MVP study. The main metric is the amount of collected money in a given time period. The collected data for benchmarking included amount of money collected by the fund for patients with similar medical cases (genetic research) in different time periods, such as week, 2 weeks and a month. After the MVP launch of the platform, the amount raised was recorded at certain time points and then compared with the results from the Miloserdie fund. The metrics were collected using the Google Analytics tool.

There are several metrics that we are collecting. They include:

- Donation amount.
- Website visitors and page views for each page.
- Number of sharing and donation button clicks.
- Number of supporters who donated.
- Number of supporters who left words of support for the recipient.

From these, the following metrics can be estimated for analysis:

- Average donation amount. It was also benchmarked against similar results by the Miloserdie fund for all cases.
- Percentage rate of how many platform visitors go to the patient's page. This metric allows to see if the patients are interested in learning more about the patient.
- Percentage rate of how many visitors end up donating. This metric can help to understand how many people were interested and how many of them actually ended up donating to evaluate the efficiency of the platform providing an estimate of platform efficiency.
- Percentage rate of how many users shared the info about campaign. This helps to evaluate the importance of sharing information with friends.

In addition to those metrics, feedback from website visitors was also collected. It was in the form of a survey with four questions and was aimed at evaluating the importance of each individual feature on the platform and the overall user experience. The evaluation questions were one the scale 1-5; there was one multiple choice question and one open question:

1. Evaluate your overall experience using the platform.
2. Which features motivated you to donate?
3. To what extent is it likely that you will recommend Qaiyrym to your friends?
4. If you have any suggestions on improving the platform, please write them down.

Out of these, question 2 is the most important. It lists all of the features implemented and can help to evaluate which features are contributing more to the donation intention. The survey was shown after the donation has been made.

In addition to that formal survey, some feedback was also gathered orally from the visitors of the platform during the event. Some people who visited our website also expressed

their feedback and suggestions by directly contacting some of the authors of this report outside the event. Some portion of feedback also came from the users contacting the platform managers through the support link from our website.

3.6 Hyperbolic tree diagram

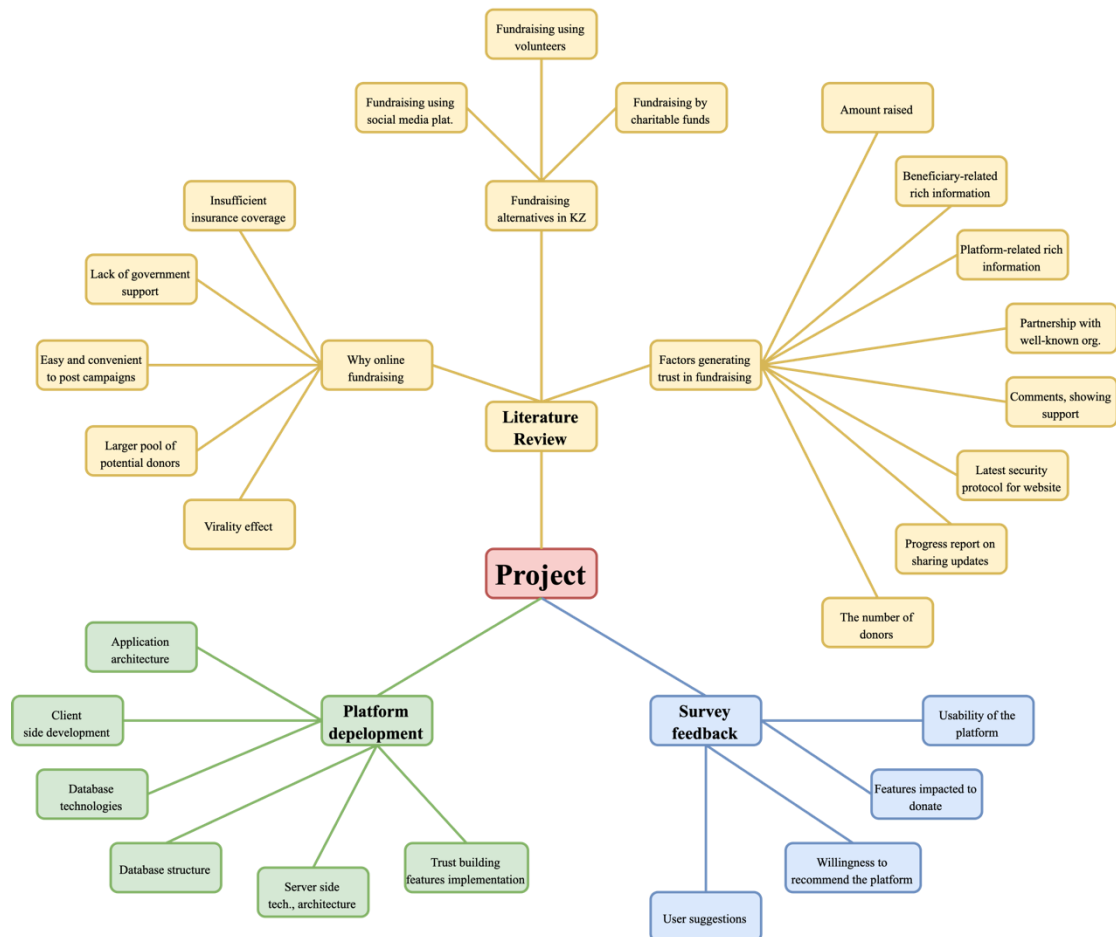


Figure 3.47: Hyperbolic tree diagram of the project

The diagram presented in Figure 3.47 provides a summary of the project's endeavors, encompassing various components such as the literature review, which examined three distinct areas, namely: the rationale for online fundraising, alternatives to fundraising in Kazakhstan, and the factors contributing to the development of trust in fundraising. Additionally, the figure showcases the platform development process, as well as the feedback received from the survey conducted.

Chapter 4 - Results

This section describes the results obtained during the MVP launch. This includes the results associated with collected amount, metrics and the feedback results.

4.1 Metrics

4.1.1 Total collected amount and duration of collection

In total, 300382 tenge were collected during the course of one week. This completely covered the total amount required for the Yerassyl's case, which was 240000 tenge. Extra amount was also transferred to the Miloserdie foundation which then directed that amount (60382 tenge) to cover treatment costs for a different case.

The funds collected by the Qaiyrym.kz platform can be then compared with the fundraising amounts for similar durations that were collected by the Miloserdie foundation themselves. The data for medical cases from the same category of Genetics is shown in Table A.1 of Appendix A. The amounts collected range from 117000 to 657000 tenge. In general, the cases related to conducting genetic assessment require relatively small amounts since it covers only costs for the diagnosis of the disease, not the treatment. Usually, the treatment is assigned after knowing the results of the genetic assessment. The durations for these cases range from 0.5 months to 2 months. The average fundraising amount was 290707.32 tenge while the average duration was 1 month and 13 days. The amount raised by the Qaiyrym.kz was larger than the average donation amount and it was collected in a short time.

If the amounts raised during the same period (one week) are compared, then the average collected amount by the Miloserdie foundation without the aid from the platform would be 91445.12 tenge. Thus, the amount of 300382 tenge collected in our case far exceeds this amount by more than 200%. The maximum amount collected during one week by Miloserdie for such cases was 285000 tenge, which is comparable with the amount gathered by Qaiyrym.kz but is still lower.

4.1.2 Individual donation amount

There were 100 donations made in total for one week. The smallest donation was 139 tenge while the largest one was 50000 tenge. The average donation was 3003.82 tenge. These numbers can be compared with similar numbers from the Miloserdie fund as well. The organization provides such data on individual donations on their website for each

year. During the year of 2022, 89451 individual donations were made through the Kaspi app only. Kaspi is the largest and most popular payment app in Kazakhstan where the majority of transfers are being made. In 2021, payments via the Kaspi app constituted about 69% of total transfers from individuals who donated to the Miloserdie fund (Miloserdie, 2023). Therefore, payments via the Kaspi app can serve as a good representation of all donations made by individuals.

The average donation size of these 89451 donations was 2043.53 tenge. They range from just 1 tenge up to 2 million tenge. The average donation made on Qaiyrym.kz is larger than the average donation on Miloserdie by about 50%.

4.1.3 Page visits

In total, there were 512 users over the course of the week out of which 494 were new users. The data for views for each of the website pages is shown in Table 4.1. Some users did not access the main page but accessed the patient or donation pages directly.

Table 4.1: Page views and users

Page	Views	% of Main page views	Users	% of Main page users	Views per user
Main page	2275	100	462	100	4.92
Patient page	1724	75.8	259	56.0	6.66
Donation page	701	30.8	150	32.5	4.67
About page	168	7.4	51	11.0	3.29

Almost all users (462 out of 494) visited the main page. Therefore, it can be said that almost all website visitors entered it through the main page. There are about 5 views per user for this page, so users were returning to it. Patient page had 1724 views in total which is 75.8% of the views of the Main page. However, for the user count, there were 259 users which is only 56% of total users of the main page. This means that half of the users proceeded to the Patient page. The patient page had the largest number of views per user, and it was 6.66 views. For the Donation page, there were 701 or 30.8% of total main page views, and 150 or 32.5% of total main page users. It had a similar number of views per user, which was 4.67. The About page was the least visited page with only 7.4% of main page views (168 views) and 11% of all main page users (51 users). It also had the lowest number of visits per page of only 3.29 meaning that users did not feel the need to come back to this page.

In addition, the data on the origin of the visits was collected. This data gathers the number of visits from different sources. These sources include direct visits (when user manually types the link of the platform by him-/herself or scans the QR code), organic social (when the user clicks the link from another media such as a social media post), organic search (when the user clicks the website link from a search engine like Google) and referral (when user clicks the website link from another website). The data is shown in Figure 4.1. The number of users who visited Qaiyrym.kz from organic search and referral is very low (7 and 2, respectively) so it can be discarded since at least some of them came from the authors of this report due to testing purposes. 382 new users visited using the direct method. Most of them scanned the QR code during the event. 103 users clicked the link on the social media and messengers.

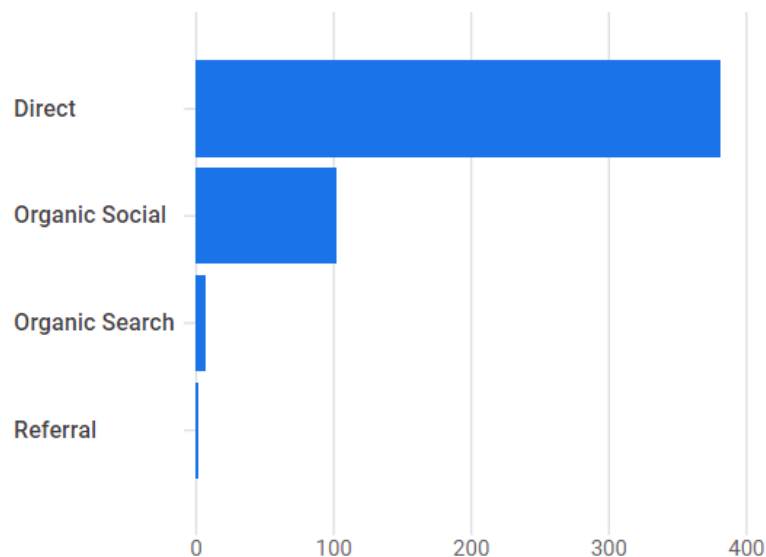


Figure 4.1: Users by the origin of search

In addition, the share click button was clicked 10 times in total. This is 2% of total website visitors during that period. The copy link button in the share menu was clicked 2 times only.

4.1.4 Donation percentage

Based on the number of visits and the total users count it is possible to extract the donation percentage. Out of 494 new users during this period 100 users donated. The donation rate is provided by the Equation 1:

$$Total\ donation\ \% = \frac{Total\ donations}{Total\ number\ of\ users\ visited} \quad (1)$$

For this case, the donation rate would be:

$$\text{Total donation \%} = \frac{100}{494} = 20.2\%$$

This number means that every fifth user who visited the website has donated. Similar numbers can be calculated for the number of visitors who visited the patient and donation pages as well as the number of users who clicked the donate button. This can be useful in determining at what stage users find trouble proceeding further, in other words, at what stage users decide not to make a donation and leave the platform. The number of users who clicked the Donate button can help to find if the users have troubles with the payment apps.

$\text{Donation \% from Patient page} = \frac{\text{Total donations}}{\text{Number of users who visited the patient page}}$	(2)
$\text{Donation \% from Donate page} = \frac{\text{Total donations}}{\text{Number of users who visited the donate page}}$	(3)
$\text{Donation \% from Donate button} = \frac{\text{Total donations}}{\text{Number of users who clicked the donate button}}$	(4)

The values for the donation rates from patient and donation pages are 38.6% and 66.7%, respectively. For the donation rate from clicking the donate button is 87.7% since 114 users clicked the button. However, the button was clicked 304 times in total. Thus, on average each user had to click the Donate button 2.67 times.

4.1.5 YouTube statistics

There are two videos on the platform: one on the main page explaining the platform and an emotional one on the patient page that features the child and his relatives. Both of those videos are approximately of the same length. The video from the main page was viewed 49 times in total while the video about the patient was watched 20 times.

In terms of percentages, 9.9% of all website visitors watched the video from the main page. Only 4% watched the video about the patient. These numbers can aid in assessing the effectiveness of the videos on the platform.

4.1.6 Number of support words

There were 38 people who left their support words for Yerassyl. This is 38% of the total donations. However, there were people who left a comment but did not make a donation. Thus, out of all 494 users, 7.7% have left a support word.

4.1.7 Additional channels

Another metric that can be analyzed is the number of inquiries and subscribers to the platform's support channel in Telegram. During the case study there was one such inquiry. The user suggested some changes related to the payment system. In addition to that, only 2 people joined the platform's Telegram channel during the case study.

4.2 Feedback from community

Collectively, a sum of 24 survey responses were acquired from individuals who used the platform and those who made donations through the website. It is important to note that out of the total responses gathered, only 16 of them provided answers to all the inquiries presented in the survey (Table 4.2). It is noteworthy to mention that a considerable portion of feedback and commentary was conveyed verbally during events organized by the university, as well as through messaging and support channels on social media.

Table 4.2: Web-survey questions and collected number of responses

Number	Survey question	Number of responses
1	Evaluate your overall experience using the platform	16
2	Which features motivated you to donate?	16
3	To what extent is it likely that you will recommend Qaiyrym to your friends?	19
4	If you have any suggestions on improving the platform, please write them down	2

4.2.1 Responses from web-site survey

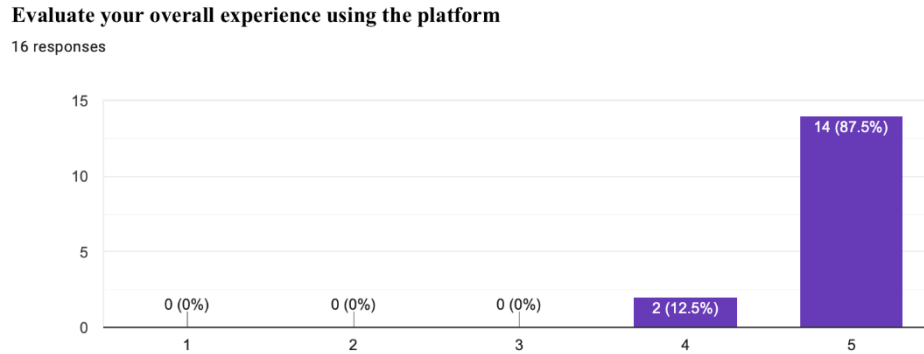


Figure 4.2: Distribution of responses on evaluation of platform usage experience

The primary question of the survey yielded 16 responses, which were related to evaluating the user experience of the platform as a whole. (Figure 4.2). The rating scale ranged from one, indicating an extremely unfavorable experience, to five, representing a highly favorable one. The findings indicated that the majority of the respondents, 14 in total, appraised their website interaction as "Very Good", with the remaining two individuals evaluating it as "Good".

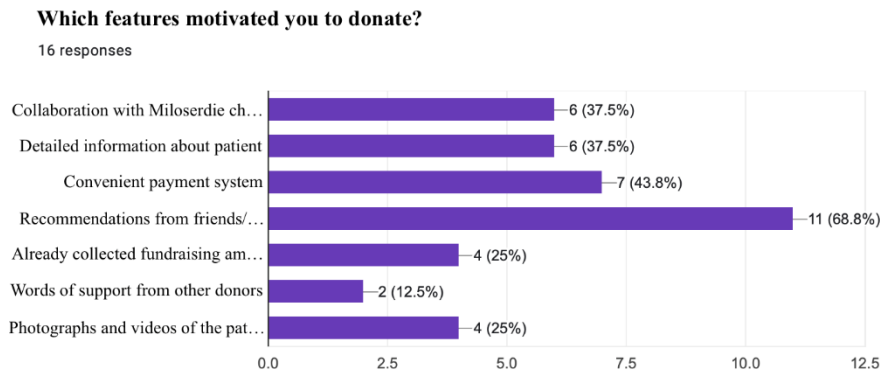


Figure 4.3: Distribution of responses on the features motivated donors to support a campaign

The second item on the survey pertained to identifying the most significant website features that motivated donors to contribute to the cause (see Figure 4.3). A total of 16 responses were collected, indicating that 68.8% of the respondents considered "recommendations from friends/family members" as the most influential feature among the seven attributes examined. Furthermore, 43.8% of the participants identified the

"convenient payment system" as a key factor in their donation decision-making process. Other noteworthy features included "collaboration with Miloserdie charity foundation" and "detailed information about the patient," both of which were deemed useful by 37.5% of donors. In contrast, only 12.5% of respondents selected "words of support from other donors" as an influential feature. Meanwhile, 25% of participants considered "already collected fundraising amount" and "photographs and video of the patient" as significant website features.

To what extent is it likely that you will recommend Qaiyrym to your friends?

19 responses

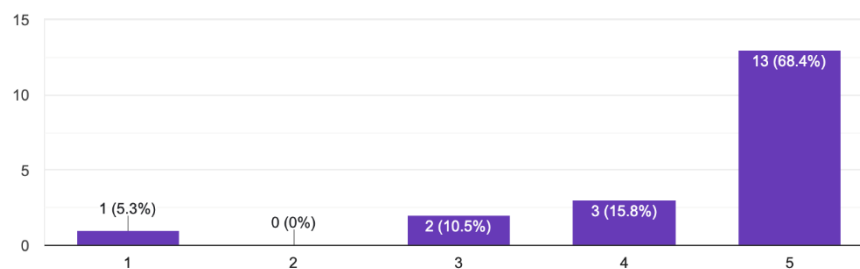


Figure 4.4: Distribution of responses examining how likely respondents are to recommend the platform to their friends/family/acquaintances

The third item on the survey aimed to gather information from respondents regarding their propensity to recommend the platform to their acquaintances, family, and friends (Figure 4.4). A total of 19 responses were received, with donors being able to rate their likelihood of recommendation on a scale of 1 to 5, where 1 indicated "Not Likely," and 5 indicated "Very Likely." Results indicated that 68.4% of respondents were highly likely to recommend the platform, while 15.8% of participants were more inclined to recommend it. In contrast, 5.3% of donors expressed their unlikelihood to share the platform link with their acquaintances and friends, while 10.5% of respondents chose an option labeled 3, indicating a "Likely" likelihood of recommendation.

The preceding inquiry pertained to recommendations for enhancing the platform, wherein a mere two respondents provided constructive feedback. Specifically, one individual proposed that the Qaiyrym platform may attract greater visitor traffic and donor engagement if it were to incorporate detailed reports outlining the specific ways in which collected funds have aided patients. Meanwhile, another respondent commented on the

platform's disorganized interface and recommended the inclusion of more semantically grouped components.

4.2.2 Comments from other channels

The primary source of suggestions and comments provided by platform users comprised direct messages to the platform support account and personal accounts of team members on social media platforms, as well as in-person feedback from passersby and attendees at physical launch events. The most frequently provided comments are listed as follows:

- 80% of platform users did not know that card numbers are copied automatically when redirecting to the banking application.
- 75% of donors were using the services of Kaspi bank, however, the platform has only redirect button to Jusan bank application.
- After submitting words of support, it is unclear if the input is sent successfully.
- 40% of users did not immediately realize how to donate.
- 25% of donors did not want to transfer money from Kaspi to Jusan card as there is a commission of the bank.
- Donations made do not appear instantly on the platform.
- 12 users asked if the platform has an Instagram page.
- The donation process time was too long; some users expressed the desire to send instant donations to Yerassyl.

Chapter 5 - Discussion

In this section, the results of the case study launch are analyzed and discussed. The results are compared and discussed. Also, the discussion part considers each feature that was implemented to evaluate its effectiveness in this particular case.

5.1 Raised amount and donations

Overall, it can be concluded that the launch case was a success for the platform. The main achievement is that the money was collected in full amount, thus, Yerassyl's family is able to pay for the genetic research in time and get its results. In addition, the extra funds will also help another child to fight his disease. It can be also said the platform showed quite a good performance overall. The platform managed to gather the required in a week which was a better result than the average result from the Miloserdie fund. Similarly, the average donation amount was also larger. Thus, the platform in general performed quite well. However, using the results from the metrics from Google Analytics and the feedback it is possible to make some evaluations about each individual feature.

The donation percentage (which is also called conversion rate) in our case (20%) is much larger than those reported in the literature which are around 1-3% (Hou et al., 2015; Adrià Tarrida, 2020). This can be explained by the fact that this campaign was the first one for the Qaiyrym.kz platform and attracted larger attention because of being the first one. In addition, the campaign was only in a small community of the University where students tend to have trust in each other due to the sense of community, and quite a large fraction of users got recommendations from their friends. Finally, the events were designed specifically to attract potential users, which is not usually done by large crowdfunding platforms.

5.2 Features

5.2.1 Patient-related information richness

Survey feedback shows that detailed information about patients is one of the main drivers for donors to donate. According to Figure 4.3, it stands as the third most influential feature (37.5%) among all applied in the platform. This feature allows donors to understand the severity of the patient's condition and the potential impact that their donation can have on the patient's health and well-being. When donors have access to detailed information about a patient's medical history, diagnosis, treatment plan, they can make informed

decisions about whether and how much to donate. Moreover, detailed information about a patient can help to create a sense of urgency and emotional connection for potential donors. When donors are able to see the human face behind a medical condition and understand the impact that their donation can have on that person's life, it can motivate them to donate more generously and quickly.

5.2.2 Platform-related information richness

Based on the results of metrics, it can be said that platform-related information was not the decisive factor in creating donation intentions. First of all, only 11% of all users visited the About page with additional information about the platform. The About page was the least visited overall. Secondly, the number of views and the percentage of people who watched the video about the platform on the main page is less than 10%. Thus, it may be that users were not generally interested in learning more about the platform, instead, they were more interested in making a quick donation. The information about the platform has limited effect on the trust generation. It is possible that the users enter the platform already with trust level enough to make a donation decision. Such trust may come from other factors such as recommendations from friends so that users are willing to quickly make a donation and support the patient and their friends this way.

In general, there is a study that recommended including detailed information about the platform and how it operates to add credibility (Ferreira et al., 2022). However, it probably is not an important factor in creating trust. It might be important to focus on showing the platform partners with good credibility such as Miloserdie fund in this case. Some people indicated that the collaboration with the fund helped them to make a decision about donation. Nevertheless, since some users checked the information about the platform, it is recommended to still have it on the platform since it is relatively easy to implement and might help some users to gravitate towards making a donation.

5.2.3 Emotional photos and videos

From the metrics, it is possible to evaluate how the video about the boy performed in terms of creating trust. The percentage of users who viewed the video was extremely low. It was even lower than for the video on the main page. Thus, it can be said that it was not very useful in creating intentions to donate since users were not interested in this video. It did not contribute much to the emotion-based trust.

The literature suggests that emotional photos and videos are helpful in creating that type of trust (Ferreira et al., 2016; Snyder et al., 2016; Ren et al. 2020). However, according to the survey results and the YouTube metrics, they were not very helpful, and many people wanted to donate as quickly as possible. It might be better for campaign initiators and platform managers to include only emotional photos while video about the patient may be of less importance. However, it is unknown how the video would perform if it was included in the social media campaigns, for example, in Instagram stories.

5.2.4 Peer influence and social media

The metric related to peer influence and social media showed that 103 people (or about 20%) came from links from other posts including social media. This means that social media virality has made a notable contribution to the promotion of the campaign and the platform. It is very important for crowdfunding platform managers to fully incorporate social media tools in the promotion of the campaigns and the platform itself. This was emphasized in multiple studies in the literature (Ba et al., 2022; Zhang et al., 2021a; Zhang et al., 2022). Now the effect of social media promotion was validated with a practical case.

Nevertheless, the share button on the website was not very useful. The number of people who wanted to share information about the platform via this share menu was very low. It is possible that this share menu needs some reconsidering. The platform managers might consider some options of encouraging the users for sharing the information about the platform with their friends in social media and messengers. It can be challenging to implement but the effect of social media virality is strong and can contribute significantly to the success of the campaign.

Considering the survey results, it showed that recommendations from family, friends and acquaintances is the leading significant feature that motivates donors to support a cause and donate. 68.8% of all respondents chose this feature as a driver for their donation. It leads by 20% from the second most influential factor. The main reason for that could be that people often rely on the opinions and experiences of those they trust to make decisions, especially in situations where there is limited information or high uncertainty. When a person receives a recommendation from someone they know and respect, it can create a sense of trust and social validation, making it more likely that they will donate to

the cause. This is because people are influenced by their social networks and are more likely to act in ways that are consistent with the norms and values of their community.

5.2.5 Platform support for users and additional channels

The number of users who wrote to the platform support was very low. Many people were not interested in joining the other channels of the platform. There are two sides from which this aspect can be looked at. From one side, support and additional information channels should contribute to the trust generation (Ferreira et al., 2022). From the other side, the Telegram channel was not promoted to the same extent as the platform itself as the team believed that it was more important for the users to make a donation and fill the survey and asking them to join the Telegram channel may be overwhelming during the event. The website also contains information about the extra channels and how they can serve them. The number of users who were asked to join the Telegram channel was relatively low. Most of them were not interested in it in the end. Nevertheless, some users asked the team if there are Instagram pages for the platform. Therefore, it is hard to make proper evaluations from the received feedback. The implication might be that the support feature and the additional channels do not contribute much to the donation intention, however, should not be neglected completely as they might become extremely useful for some users.

5.2.6 Collected amount and donations information

Based on the survey findings, the inclusion of information regarding the total amount raised so far was not found to be a significant motivating factor for individuals to donate (Figure 4.3). Specifically, it was ranked fifth among seven features assessed in terms of its influence on supporting a particular cause. However, it is important to note that due to the limited number of survey responses (i.e., 16), caution should be exercised when interpreting these results and drawing conclusions about its impact on donor behavior.

5.2.7 Support words

The number of support words in general was quite low. Out of all users, only 7.7% have left a support and encouragement word. However, it can be said that if the users already made a decision about donation, they were highly interested in leaving a support word as 38% of all donors left an encouragement word for Yerassyl. Even though the literature suggests that support words should be creating trust since people see that other real people are donating (Ferreira et al., 2022; Zhang et al., 2022). In general, from the case results it

might be implied that support words do not add significantly to the credibility of the platform and the campaign, however, it is a useful feature for those who already want to donate and should be implemented in crowdfunding platforms.

Based on the survey results, words of support have been shown to be the least influential feature motivated donors to donate for. Only 12.5% of respondents pointed out that this feature had an impact on their donation decision (Figure 4.3). This is because social influence is often driven by more tangible and concrete cues, such as the size and frequency of donations, the number of donors who have contributed, and the endorsement of trusted sources like family and friends. While supportive messages from donors can certainly create a sense of community and camaraderie among supporters, they may not carry the same weight as other social cues that signal the legitimacy and importance of the cause. Additionally, some donors may be more motivated by the desire to make a tangible impact on the lives of others than by expressions of emotional support. Therefore, while words of support can be a valuable part of an online crowdfunding campaign, they may not always be the most persuasive or influential feature for motivating others to donate.

5.2.8 Payment process and usability

Based on the findings of the conducted survey, it was observed that the payment system that was incorporated into the platform emerged as one of the primary catalysts that motivated donors to contribute towards the cause (refer to Figure 4.3). It is plausible that the convenience offered by the payment system as compared to conventional methods of donating through social media platforms could be the reason for this preference. For instance, the conventional method of donating via campaigns on platforms such as Instagram or WhatsApp necessitates the donor to manually navigate to their banking application and enter the receiver's account details, which could prove to be a cumbersome process. In contrast, the Qaiyrym platform has streamlined certain aspects of the payment process, thereby making it easier for donors to contribute towards a campaign with minimal time investment.

Some of the assumptions can be made based on the results of the information about page visits. The patient page had the largest number of views per user meaning that users were on this page most of the time. This might be because users had to return to the patient page from the donation page. Some users expressed troubles with understanding the

process. They were not aware that the card number is copied automatically before redirecting them to the banking applications even though it was written under the Donate button. As a result, they had to go back to the patient page and copy the card number by themselves. For some users we had to explain in words that the card number is copied automatically.

In addition, there were some troubles with the redirection of users to the mobile banking. Some donors stated that they expected the Donate button would open the banking app directly at the payment section instead of opening the app's main page. This can be further verified by the fact that on average a user had to click the Donate button multiple times. In addition, not all people who clicked the Donate button ended up donating. This was despite the fact that the instructions were also written underneath the Donate button.

Chapter 6 - Work on feedback

The feedback received during the case study as well as insights made from the metrics results were taken into consideration. Some of that work has been already implemented while the remaining part was left for future work.

Several survey responses have identified issues with the interface of the platform. In response, a decision was made to seek assistance from a student studying Computer Science major at NU who possesses expertise in UI/UX web-design. This individual will work towards enhancing the platform's user-friendliness and visual appeal, considering the feedback provided.

The comments outlined in Section 4.2.2 of the thesis are accompanied by corresponding strategies for addressing each of them.

1. 80% of platform users did not know that card numbers are copied automatically when redirecting to the banking application.

Approach: The typographical presentation of the message pertaining to the automated copying of card numbers has been modified by increasing the font size and changing the color scheme to enhance its conspicuity (Figure 6.1). Furthermore, the message has been incorporated under every button leading to the banking application, thereby preventing potential donors from inadvertently overlooking this critical information.

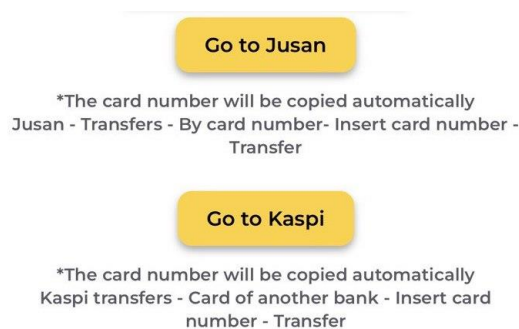


Figure 6.1: The inscription of automated copying of card number and, Kaspi app and Jusan app redirecting buttons

2. 75% of donors were using the services of Kaspi bank, however, the platform has only redirect button to Jusan bank application.

Approach: The integration of a new button that redirects to the Kaspi.kz banking application has been implemented (Figure 6.1). Instructions on how to donate have been

provided above the redirect button. Thus, donors have the option of using either the Jusan application or the Kaspi application to make their donations.

3. After submitting words of support, it is unclear if the input is sent successfully.

Approach: The notification confirming that the word of support is sent successfully appears under the sending button (Figure 6.2).

Upon completing the transaction using the bank's application, we kindly request that you participate in a survey located on this page. Your feedback will be valuable in enhancing our platform.

We highly value your perspective and feedback!

Name:

Don't display my name in the donations list

Your words of support (optional):

Figure 6.2: Notification that words of support is sent successfully

4. 40% of users did not immediately realize how to donate.

Approach: This issue is planned to be resolved by providing clear and concise instructions on how to donate. This can be achieved by having a prominent "Donate" button on the website that leads to a simple and user-friendly donation process. Additionally, providing instructions or a tutorial video on how to donate can help donors understand the process better. It is also important to have a responsive customer support team that can assist donors with any issues they encounter during the donation process. Clear communication and easy-to-follow instructions can help donors feel confident and comfortable donating on the platform.

5. 25% of donors did not want to transfer money from Kaspi to Jusan card as there is a commission of the bank.

Approach: After running a successful proof-of-concept, it is planned to integrate CloudPayments payment system in the platform, so that donors will be able to support causes using any banking card and without paying commissions to the banks.

6. Donations made do not appear instantly on the platform.

Approach: This issue will be also resolved after the integration of the CloudPayments payment system to the platform. By having access to the transactions made in real-time it will be possible to update the information about individual donations immediately. In addition, it will be possible to restrict making comments only to those users who are making a donation.

7. 12 users asked if the platform has an Instagram page.

Approach: In future, it is planned to launch an Instagram page for the Qaiyrym.kz platform. Instagram is a popular social media platform that is convenient for many users and allows to distribute information to them quickly. It is planned to hire an SMM manager that will be responsible for managing the social media accounts. These pages will be used to post information about the campaigns, new features on the platform and some interesting and educational materials about crowdfunding and medicine.

8. The donation process time was too long; some users expressed the desire to send instant donations to Yerassyl.

Approach: An option for instant donation will be added to the platform. This will be in the form of a button that will redirect the user to donation page immediately bypassing the patient page. Moreover, the option of subscription to donations is being considered. With this option, the users will be able to subscribe to monthly donations while not having to check the patients by themselves. Their donations will be directed to the first-priority patients indicated by the charity funds that are organizing those campaigns.

Chapter 7 - Limitations

There are some factors that affect the direct comparison between the amount collected by Qaiyrym.kz and the amount collected by Miloserdie during one week for a single case. First, the platform launched an event that was used to attract potential donors, while the fund does not conduct such activities. In addition, the fund has operated for a long time and has well established operations. It managed to successfully cover costs for a large number of medical cases. It is possible that part of the success of the Qaiyrym.kz is attributed to the fact that this was the platform's first launch case which was actively promoted via social media. It is unknown how the platform will perform in future campaigns. Moreover, the Miloserdie fund operates differently from the platform. It does not collect money for individual cases by default, instead the money is collected into the general account. Still the fund is able to attract large amounts into this account. It is up to the fund to decide where that money will be spent on. The fund can decide that it is more important to direct the collected amounts to other cases instead of genetics cases. Thus, the fund might perform better by collecting larger amounts of money but will not direct them to fund genetic assessments.

Similar things can be said about comparing individual donations. The number of donations on the Qaiyrym.kz website was very low relative to the total number of donations in the Miloserdie fund. Moreover, these donations are contributing to the general account of the fund, and there is no way of obtaining information about donations only related to the genetic research category.

Chapter 8 - Conclusion

The main goal of the Capstone project is to increase the effectiveness of medical fundraising campaigns for the Miloserdie fund. For achieving this goal, the web crowdfunding web-platform has been developed. Throughout the development of the web platform, the work has been separated into the following stages: analysis of the medical crowdfunding funds in Kazakhstan, review of the literature dedicated to the develop of a successful charity campaign, development of the website, conduction of a crowdfunding campaign using the developed platform, and researching gathered results.

Before the beginning of a crowdfunding web platform development, the analysis of the medical crowdfunding funds in Kazakhstan has been conducted. The Kazakhstani largest crowdfunding funds and their activities have been studied and compared. Since the developed platform is focused on helping ill children, it was decided to start a cooperative work with the fund focused on raising money for covering medical treatment for children. Strategic cooperation between the Qaiyrym web platform and the Miloserdie fund has been established.

In the literature review section, the overview of medical crowdfunding, active online crowdfunding platforms, the situation of charitable fundraising in Kazakhstan, and recommendations on building fundraising charitable platforms has been conducted. For more information about the medical crowdfunding industry, medical crowdfunding in general, and existing online crowdfunding platforms and their activities have been researched. Furthermore, the recommendations for creating a reliable and secure crowdfunding platform have been studied for further implementation in the developed platform. Also, for avoiding and preventing fraud cases in the developed platform, specific regulations and norms have been considered.

The web platform's development was started after taking into account all aspects and facts explored from the conducted literature review. The general development process has been divided into client and server sides. The website's developed initial design was created using a Figma web design tool. The created design has been recreated using the JavaScript based user interface framework React. For the server side, the C# programming language along with Microsoft SQL Server have been used for storing, transferring, and updating user data.

After the platform has been developed and all explorations from the literature review have been considered and implemented, the MVP launch has been organized inside Nazarbayev University. For the MVP launch, Yerassyl Tumanov has been selected as a recipient who needed 255,000 tenge for genetic testing. In one week, the Qaiyrym platform has collected 300,382 tenge while the average duration, according to the Miloserdie fund statistics, of other crowdfunding for the same purpose ranges from 0.5 months to 2 months. For a more detailed review of results collected after the MVP launch, metrics such as individual donation amount, page visits, donation percentage, video views, the number of supportive words, and feedback from users have been used. Throughout the MVP launch, 100 donations have been made and 300,382 tenge collected. The smallest donation was 139 tenge and the largest donation was 50,000 tenge. The average donation amount was 3000.82 tenge while the average donation amount to the Miloserdie fund, 89451 donations made, was 2043.53 tenge. The average donation made on Qaiyrym.kz is larger than the average donation on the Miloserdie fund's platform by 50%. In terms of page visits, 512 users have visited the Qaiyrym.kz platform. The sources that have been used for sharing the link of the Qaiyrym.kz are social media, messengers, and the QR code that has been posted during the event. The donation percentage rate is 20.2%. This means that every fifth user who visited the Qaiyrym.kz has donated. The video describing the history of recipients has been viewed 20 times while the video describing the Qaiyrym.kz platform's activity has been viewed 49 times. For showing the support of donors, donors could leave words of support to recipient on the platform. Out of 100 donations, 38 people have left their wishes to Yerassyl. Furthermore, for understanding the user experience, a survey form has been designed in which the questions referred to why donors decided to donate, their user interface preference, and what they would like to change in the MVP version. Thus, throughout the MVP campaign, 24 responses have been collected and studied.

In conclusion, the development of the web platform for increasing the efficiency of crowdfunding for the Miloserdie fund is a significant achievement for improving the lives of children in need of expensive medical treatment. The platform was designed to provide a user-friendly and efficient way for donors to make donations. The implemented features of the platform, such as secure payment methods, tracking the progress of crowdfunding campaigns, and easy communication with the charity campaign organizers have increased the transparency as well as the general motivation of donors to contribute towards the

recipient. The developed Capstone project involved extensive research, planning, and implementation of the web platform. For the successful launch of the platform, the project team worked collaboratively with the Miloserdie fund to ensure that the platform met their specific needs and requirements.

The creation and implementation of this crowdfunding platform marks a significant milestone that combines fraud cases and helping people in need. One of the goals of this platform is to make a positive impact on the world by using technology to facilitate transparent and trustworthy fundraising initiatives. According to the gathered and studied results from the MVP launch, the main goal of the Capstone project can be considered as achieved.

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Appendices

Appendix A

Table A.1 List of children having disease in genetics with fundraising duration information of a certain amount.

Disease type	Name	Amount Collected (tenge)	Amount Needed (tenge)	Duration of fundraising (month)
Genetics	Akylzhan Temirkhan	210000	210000	2
Genetics	Nurzhan Serikbay	246000	246000	0.5
Genetics	Zangar Uskenbayev	570000	570000	0.5
Genetics	Damira Askar	570000	570000	1
Genetics	Nurbatyrkhan Diasuly	210000	210000	2
Genetics	Amir Kumarbek	246000	246000	1
Genetics	Anisa Alimbay	210000	210000	1
Genetics	Amina Turgynbayeva	246000	246000	0.5
Genetics	Anara Isagali	570000	570000	1
Genetics	Zangar Sagymbay	210000	210000	2
Genetics	Yerasyl Nurzhan	258000	258000	1
Genetics	Yerkin Nurzhan	258000	258000	0.5
Genetics	Yerasyl Balgabay	210000	210000	2
Genetics	Meyirkhan Kairat	210000	210000	1
Genetics	Ainur Alik	210000	210000	0.5
Genetics	Aiaru Dastankyzy	210000	210000	2
Genetics	Rinat Zharzhanov	306000	306000	2
Genetics	Yeldar Aliakbar	117000	117000	1
Genetics	Akzhurek Amangeldi	210000	210000	0.5
Genetics	Zhanaiys Shakhan	246000	246000	1
Genetics	Islam Kalymzhan	246000	246000	0.5
Genetics	Temirlan Maksutov	120000	120000	2
Genetics	Asylkhan Pernebek	246000	246000	0.5
Genetics	Ademi Zheniskyzy	246000	246000	0.5
Genetics	Zhanarys Rakhimbekov	210000	210000	0.5
Genetics	Abilmansur Usein	258000	258000	1
Genetics	Aisultan Nurzhan	480000	480000	2
Genetics	Adelina Fedorova	210000	210000	2

Genetics	Aisana Amirsana	411000	411000	0.5
Genetics	Zakir Mikhailov	750000	750000	1
Genetics	Malika Adambek	210000	210000	2
Genetics	Torgyn Atabay	210000	210000	1
Genetics	Aisultan Toleukhan	210000	210000	0.5
Genetics	Yersultan Toleukhan	210000	210000	0.5
Genetics	Rayana Omirbekova	210000	210000	0.5
Genetics	Medina Kharzhaubay	246000	246000	2
Genetics	Ismail Bavdinov	246000	246000	0.5
Genetics	Adil Amanzhol	246000	246000	1
Genetics	Umar Kuanysh	534000	534000	0.5
Genetics	Nikita Kolesnikov	657000	657000	1
Genetics	Amina Amirbek	240000	240000	2

Appendix B**МЕМОРАНДУМ О ПРЕДОСТАВЛЕНИИ
БЛАГОТВОРИТЕЛЬНОЙ ПОМОЩИ № 17**

г. Алматы

25.03.2023г

Веб-платформа Qaıyut, именуемое в дальнейшем «**Благотворитель**», в лице Исина Нурхана Куанбековича, действующего на основании протокола № 1 от 14 марта 2023 года, с одной стороны,

и **Общественный фонд «Добровольное Общество Милосердие»**, именуемый в дальнейшем «**Фонд**», в лице исполнительного директора, Семёновой Татьяны Владимировны, действующей на основании Устава, с другой стороны,

учитывая актуальность и важность социальной политики государства по обеспечению интересов социально незащищенных слоев населения в соответствии с требованиями гражданского законодательства Республики Казахстан, руководствуясь общечеловеческими нормами морали, заключили настоящий меморандум о нижеследующем:

1. ПРЕДМЕТ МЕМОРАНДУМА

1.1. Благотворитель безвозмездно передает Фонду средства, полученные через веб-платформу «Qaıyut», Приложение №1, являющейся неотъемлемой частью настоящего Меморандума.

1.3. Благотворительная помощь предоставляется в рамках благотворительного проекта «Подари детям жизнь», направленного на помощь детям с тяжелыми заболеваниями, неизлечимыми в республике Казахстан.

2. ПРАВА И ОБЯЗАННОСТИ СТОРОН**2.1. Фонд имеет право:**

- 2.1.1 на получение предусмотренной настоящим Меморандумом Благотворительной помощи;
- 2.1.2 на использование Благотворительной помощи в соответствии с целями ее предоставления;
- 2.1.3 на защиту в установленном порядке своих прав;
- 2.1.4 имеет иные права, предусмотренные законодательством Республики Казахстан.

2.2. Фонд обязан:

- 2.2.1 использовать предоставленные средства исключительно в рамках благотворительного проекта «Подари детям жизнь»;
- 2.2.2 предоставлять Благотворителю отчет о целевом использовании Благотворительной помощи и выполнении обязательств по настоящему Меморандуму;
- 2.2.3 соблюдать конфиденциальность всей и любой информации о Благотворителе, полученной в результате реализации настоящего Меморандума благотворительной помощи, а также иной информации, связанной с предметом настоящего Меморандума и не разглашать данную информацию без письменного согласия Благотворителя;
- 2.2.4 выполнять иные требования в соответствии с законодательством Республики Казахстан.

2.3. Благотворитель имеет право:

- 2.3.1 использовать информацию о предоставлении благотворительной помощи по настоящему меморандуму во всех рекламных и иных материалах, связанных с функционированием веб-платформу Qaıyut;

Figure B.1 Agreement with “Милосердие (Miloserdie)” charity foundation, page 1 out of 4

- 2.3.2. требовать от Фонда предоставления отчета о целевом использовании Благотворительной помощи и выполнении обязательств по настоящему Меморандуму;
- 2.3.3 на защиту в установленном порядке своих прав;
- 2.3.4 использовать название, лого и информацию с сайта фонда «Добровольное Общество «Милосердие» на платформе «Qairuqum» в продвижении платформы «Qairuqum»;
- 2.3.5. имеет иные права, предусмотренные законодательством Республики Казахстан.

2.4. Благотворитель обязан:

- 2.4.1 предоставить Благотворительную помощь на условиях, определенных Приложением 1 настоящего Меморандума;
- 2.4.2 уведомить Фонд о дате предоставления Благотворительной помощи;
- 2.4.3 соблюдать иные требования к порядку оказания Благотворительной помощи, предусмотренные законодательством Республики Казахстан.

3. ОТВЕТСТВЕННОСТЬ СТОРОН

- 3.1. За неисполнение или ненадлежащее исполнение своих обязанностей по настоящему Меморандуму Стороны несут ответственность в соответствии с действующим законодательством Республики Казахстан

4. РАЗРЕШЕНИЕ СПОРОВ

- 4.1. Все споры и разногласия, которые могут возникнуть между Сторонами по вопросам, не нашедшим своего разрешения в тексте данного Меморандума, будут разрешаться путем переговоров на основе действующего законодательства Республики Казахстан.
- 4.2. При неурегулировании в процессе переговоров спорных вопросов в течение 30 (тридцати) календарных дней с даты письменной претензии любой из Сторон, споры разрешаются в судебном порядке в соответствии с действующим законодательством Республики Казахстан.

5. СРОК ДЕЙСТВИЯ МЕМОРАНДУМА

- 5.1. Настоящий Меморандум вступает в силу с момента его подписания уполномоченными представителями Сторон и действует до 31 декабря 2023г.

6. ЗАКЛЮЧИТЕЛЬНЫЕ ПОЛОЖЕНИЯ

- 6.1. Во всем остальном, что не предусмотрено настоящим Меморандумом, Стороны руководствуются действующим законодательством Республики Казахстан.
- 6.2. Все приложения к настоящему Меморандуму являются неотъемлемой его частью. В случае противоречия между текстом Меморандума и каким-либо приложением к нему, преимущественной силой пользуется текст Меморандума.
- 6.3. Стороны обязуются своевременно извещать друг друга о реорганизации, ликвидации, переименовании, об изменении своего адреса, организационно-правовой формы, банковских реквизитов, иных юридически значимых идентификационных характеристик. В противном случае ответственность за возможные последствия несет Сторона, не известившая о соответствующих изменениях. Обращения и юридические действия Стороны, не известившей об указанных в настоящем пункте изменениях другой Стороны, признаются надлежащим образом оформленными и правомерными.
- 6.4. Любые изменения и дополнения к настоящему Меморандуму действительны при условии, если они совершены в письменной форме, скреплены печатями и подписаны надлежаще уполномоченными на то представителями Сторон.
- 6.5. Меморандум составлен в двух экземплярах, из которых один находится у Благотворителя, второй - у Фонда.

Figure B.2 Agreement with “Милосердие (Miloserdie)” charity foundation, page 2 out of 4

7. ФОРС – МАЖОР

7.1. Стороны освобождаются, от ответственности за полное или частичное неисполнение обязательств по настоящему Меморандуму, если такое невыполнение явилось следствием обстоятельств непреодолимой силы, наступивших после заключения настоящего Меморандума в результате событий чрезвычайного характера, которые Стороны ни предвидеть, ни предотвратить не могли.

7.2. Сторона, неисполнение обязательств которой вызвано форс-мажорными обстоятельствами, обязана известить об этом в письменной форме другую Сторону с приложением соответствующих документов в срок не более трех дней со дня возникновения таких обстоятельств. В этом случае Стороны в срок не более семи дней с даты получения извещения адресатом согласовывают в письменной форме свои дальнейшие действия по настоящему меморандуму. Информация должна содержать данные о характере обстоятельств, а также оценку срока их влияния на исполнение Стороной своих обязательств по настоящему Меморандуму

7.3. В случае несвоевременного извещения Сторона лишается права ссылаться на форс-мажорные обстоятельства, как основание невыполнения своих обязательств по настоящему Меморандуму.

7.4. Достаточным доказательством возникновения и прекращения действия форс-мажорных обстоятельств будут служить свидетельства уполномоченных органов Республики Казахстан.

7.5. Срок выполнения обязательств по настоящему Меморандуму переносится соразмерно времени, в течение которого действовали такие обстоятельства.

7.6. Если в результате форс-мажорных обстоятельств условия настоящего Меморандума не выполняются более трех месяцев, то любая из Сторон по настоящему Меморандуму имеет право досрочно расторгнуть настоящий Меморандум в одностороннем порядке, уведомив другую Сторону за десять дней. При этом ни одна из Сторон не имеет права требовать от другой Стороны возмещения каких бы то ни было убытков.

8. ЮРИДИЧЕСКИЕ АДРЕСА, БАНКОВСКИЕ РЕКВИЗИТЫ И ПОДПИСИ СТОРОН

Благотворитель

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Исин Н.К.

Фонд

ОФ «Добровольное Общество
Милосердие»
Адрес: г.Алматы, ул.Наурызбай батыра
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в АО «Kaspi Bank»
БИК CASPKZKA
Кбе 18


Семёнова Т.В.

М.П.

Figure B.3 Agreement with "Милосердие (Miloserdie)" charity foundation, page 3 out of 4

Приложение №1
к Меморандуму о предоставлении благотворительной
помощи

№ 17 от 25.03.2023г.

Сбор средств посредством веб-платформы Qaiyut

Глоссарий

Qaiyut - веб-платформа, разработанная группой студентов АОО «Назарбаев Университет». Официальным представителем инициативной группы является Исин Нурхан Куанбекович.

Фонд – Общественный фонд «Добровольное Общество Милосердие»

Подари детям жизнь – проект Фонда, направленный на лечение детей с тяжёлыми диагнозами, неизлечимыми в Республике Казахстан.

Бенефициар – ребенок, которому требуется зарубежное лечение в рамках проекта «Подари детям жизнь»

1. Веб-платформа Qaiyut функционирует на ресурсе <https://qaiyut.kz/>.
2. Информация о возможности пожертвования через веб-платформу Qaiyut распространяется разработчиками среди студентов и преподавателей АОО «Назарбаев Университет».
3. Фонд подбирает кандидатуру Бенефициара из числа обратившихся за помощью в рамках благотворительной программы фонда «Подари детям жизнь»:
 - а) определяет Бенефициара, дата госпитализации которого запланирована не ранее чем через месяц со старта сбора пожертвований;
 - б) сообщает официальным представителям Бенефициара о возможности сбора средств через веб-платформу Qaiyut;
 - в) в случае согласия официального представителя Бенефициара на участие в сборе средств через веб-платформу Qaiyut, передаёт разработчикам контакты официального представителя Бенефициара для заключения договора.
4. Разработчик веб-платформы Qaiyut заключает договор о волонтерской помощи с официальным представителем Бенефициара, изготавливает необходимую для размещения на веб-платформе Qaiyut информационную продукцию.
5. Информация о Бенефициаре и способе пожертвования размещается на веб-платформе Qaiyut.
6. По окончании сроков сборов средств разработчик веб-платформы Qaiyut предоставляет информацию (банковскую выписку) Фонду и перечисляет собранные средства на банковский счет Фонда, указанный в настоящем меморандуме.
7. В случае, если собранных через веб-платформу Qaiyut средств недостаточно для оплаты операции ребенка в полном объеме, недостающие средства предоставляются из пожертвований благотворительной программы Фонда «Подари детям жизнь» о чём будет уведомлен Благотворитель.
8. Веб-платформа и Фонд не удерживают из собранных средств никаких комиссий.
9. Фонд заключает договор на лечение бенефициара согласно регламенту проекта «Подари детям жизнь».
10. По окончании лечения Фонд предоставляет разработчикам веб-платформы Qaiyut в течение 10 (десяти) рабочих дней содержательный и финансовый отчеты об использовании собранных средств.




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Figure B.4 Agreement with "Милосердие (Miloserdie)" charity foundation, page 4 out of 4

Appendix C

ДОГОВОР № _____
безвозмездного оказания услуг с волонтером

г. Астана «1» апреля 2023г.

Гр. Турманова Аклима Турмановна ИИН 900926450680
удостоверение личности № 041345533 выдан МВД РК от _____,
именуемый в дальнейшем «Родитель» (действующий в интересах несовершеннолетнего
сына/дочери Турманов Зерек, ИИН _____,
150507501078, именуемый в дальнейшем «Ребенок») с одной стороны, и гр.
(ф.и.о., номер и серия удостоверения) _____,
именуемый в дальнейшем «Волонтер», с другой стороны, вместе именуемые «Стороны»,
руководствуясь Меморандумом о предоставлении благотворительной помощи № _____ от
_____ заключили настоящий Договор далее «Договор» о нижеследующем:

1. ПРЕДМЕТ ДОГОВОРА

1.1. По настоящему договору Волонтер принимает на себя обязательство по сбору средств необходимых для лечения Ребенка (далее – Услуги), а Родитель соглашается, что данный сбор средств будет производиться на расчетном счете Волонтера и после окончания срока для сбора, собранные средства будут безвозмездно перечислены с расчетного счета Волонтера на счет ДО «Милосердие».

1.2. Сбор средств производится на расчетном счете Волонтера.

1.3. Настоящим Родитель соглашается с тем, что для исполнения условий настоящего договора необходимо размещение, Волонтером, на сайте «Qaiyugum.kz»:
- полной информации о заболевании Ребенка;
- фотография Ребенка с сайта ДО «Милосердие»;
- об общем размере денежных средств необходимых на лечение Ребенка;
- ФИО и телефонные данные Родителя.

1.4. Срок оказания Услуг:
начало: «1» апреля 2023 года;
окончание: «30» апреля 2023 года.

1.5. Место оказания Услуг: г Астана, сайт «Qaiyugum.kz».

1.6. Услуги по настоящему Договору оказываются Волонтером безвозмездно.

2. ПРАВА И ОБЯЗАННОСТИ СТОРОН

2.1. Волонтер обязан:

2.1.1. Добросовестно выполнять свои обязанности, не допускать нарушения срока выполнения заданий.

2.1.2. Соблюдать правила и требования (устные и письменные), предъявленные ДО «Милосердие».

2.1.3. В срок не менее 5 (пяти) календарных дней уведомить Родителя в т.ч ДО «Милосердие» о невозможности оказания услуг, указанных разделе 1 настоящего Договора.

2.1.4. По окончанию срока, указанного п. 1.4 Договора, Волонтер обязан в течение 5 (пяти) рабочих дней перечислить собранные средства на счет ДО «Милосердие».

2.1.5. Предоставить Родителю в течение 5 (пяти) рабочих дней выписку со специального расчетного счета Волонтера по сбору средств для Ребенка.

2.1.6. Не совершать расходы, которые могут быть прямо или косвенно связаны с исполнением настоящего Договора, а при наличии крайней необходимости их совершения – предварительно письменно согласовать их с Родителем.

2.2. Волонтер вправе:

2.2.1. Осуществлять свою деятельность индивидуально, под руководством организатора добровольческой (волонтерской) деятельности, в составе добровольческой (волонтерской) организации.

2.3. Родитель обязан:

2.3.1. Предоставить всю имеющуюся информацию о Ребенке, о его заболевании;

2.3.2. По просьбе Волонтера давать ему характеристику и/или рекомендации.

Figure C.1 Agreement with Aklima Tumanova (Yerassyl's mother) to fundraise for their cause, page 1 out of 2

2.4. Родитель вправе:

2.4.1. Расторгнуть в одностороннем порядке Договор, в случае нанесения Волонтером своими действиями вреда деловой репутации Родителя либо Ребёнка;

2.4.2. Для получения информации о сборе средств обращаться к Волонтеру;

3. ЗАКЛЮЧИТЕЛЬНЫЕ ПОЛОЖЕНИЯ

6.1. Родитель подписанием настоящего Соглашения дает свое добровольное согласие на обработку, распространение и использование персональных данных, содержащихся в настоящем Договоре.

6.2. Настоящий Договор вступает в силу с момента подписания его Сторонами и действует до полного его исполнения.

6.3. Настоящий Договор составлен в 2 (Двух) экземплярах, имеющих равную юридическую силу по одному для каждой из Сторон.

6.4. Все изменения и дополнения к Договору должны быть оформлены в письменной форме, подписаны Сторонами.

6.5. Во всем остальном, что не предусмотрено условиями Договора, Стороны руководствуются действующим законодательством Республики Казахстан.

7. РЕКВИЗИТЫ СТОРОН:**Родитель:**

ФИО: Аклима Туманова Акимовна

Удостоверение личности № 041345533

выдан _____ МВД РК

Адрес прописки:

Акматалинская обл

К. Акимов

Фактический адрес проживания:

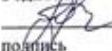
Акматалинская обл, с. Караоба,

К. Акимов

Контакт/тел: 87078824226

Эл. почта: ok-lima-90@mail.ru

Родитель


подпись

Волонтер:

Ф.И.О: Исин Нурхан Куанбекович

Место жительства : Казахстан, Северо-Казахстанская область, Айыртауский район,

Саумалколь, ул. Кусанова, дом 48а

Фактический адрес места жительства: Казахстан, г. Астана, Алматинский район,

проспект Бауыржана Момышулы 2/6, кв. 60

Удостоверение личности: № 046423098

выдан (когда, кем): 21.08.2019, МВД РК

Контактный телефон: +7 778 588 40 50

Эл/почта: Nurkhan.issin@gmail.com

Волонтер:


подпись

Figure C.2 Agreement with Aklima Tumanova (Yerassyl's mother) to fundraise for their cause, page 2 out of 2

Appendix D



АО "Jusan Bank"
050013, Республика Казахстан, г. Алматы, Медейский район, проспект Н. Назарбаева, д.242
Телефоны: 58-77-11 (единый номер для 16 городов Казахстана), 8-800-080-25-25 (бесплатный звонок с городских телефонов)
БИК: TSESKZKA

Выписка по карте

Дата: 14.04.2023 12:09

За период: 14.03.2023 - 14.04.2023

ФИО: ИСИН НУРХАН КУАНБЕКОВИЧ

ИИН: 000629551314

Номер карты: 539545*****2699

Валюта счета:	KZT	USD	EUR
Номер счета:	KZ85998PB00007332822	KZ58998PB00007332823	KZ31998PB00007332824
Входящий остаток на 14.03.2023	1100.00	0.00	0.00
Исходящий остаток на 14.04.2023	301482.00	0.00	0.00
Доступный баланс	301482.00	0.00	0.00

Транзакции по счету: KZ85998PB00007332822 KZT

Дата отражения по счету	Дата операции	Тип операции	Детали операции	Страна/Город	Сумма операции	Валюта операции	Приход в валюте счета	Расход в валюте счета
Всего							300382.00	0.00
06.04.2023	06.04.2023 18:01:12	Зачисление	MOBILE BANK Референс: 309601670495 Код авторизации: 192471	KAZ, LOCAL	1000.00	KZT	1000.00	0.00
06.04.2023	06.04.2023 18:01:47	Зачисление	MOBILE BANK Референс: 309601670754 Код авторизации: 192472	KAZ, LOCAL	1000.00	KZT	1000.00	0.00
07.04.2023	06.04.2023 23:40:36	Зачисление	P2P_KMDM_Credit Референс: 309617654688 Код авторизации: 192473	KAZ, Almaty	1000.00	KZT	1000.00	0.00
07.04.2023	07.04.2023 00:21:01	Зачисление	MOBILE BANK Референс: 309701889692	KAZ, LOCAL	1000.00	KZT	1000.00	0.00

Figure D.1 Banking statement about donations received, page 1 out of 9

Дата отражения по счету	Дата операции	Тип операции	Детали операции	Страна/Город	Сумма операции	Валюта операции	Приход в валюте счета	Расход в валюте счета
			Код авторизации: 192474					
07.04.2023	07.04.2023 00:23:28	Зачисление	P2P_KMDM_Credit Референс: 309618527686 Код авторизации: 192475	KAZ, Almaty	2000.00	KZT	2000.00	0.00
07.04.2023	07.04.2023 01:49:54	Зачисление	MOBILE BANK Референс: 309701916283 Код авторизации: 192476	KAZ, LOCAL	525.00	KZT	525.00	0.00
07.04.2023	07.04.2023 12:30:28	Зачисление	MOBILE BANK Референс: 309701084086 Код авторизации: 192477	KAZ, LOCAL	1000.00	KZT	1000.00	0.00
07.04.2023	07.04.2023 12:41:13	Зачисление	MOBILE BANK Референс: 309701090157 Код авторизации: 192478	KAZ, LOCAL	1500.00	KZT	1500.00	0.00
07.04.2023	07.04.2023 12:45:13	Зачисление	P2P_KMDM_Credit Референс: 309706495925 Код авторизации: 192479	KAZ, Almaty	2000.00	KZT	2000.00	0.00
07.04.2023	07.04.2023 12:47:37	Зачисление	P2P_KMDM_Credit Референс: 309706637681 Код авторизации: 192480	KAZ, Almaty	1000.00	KZT	1000.00	0.00
07.04.2023	07.04.2023 13:21:10	Зачисление	MOBILE BANK Референс: 309701114891 Код авторизации: 192481	KAZ, LOCAL	2000.00	KZT	2000.00	0.00
07.04.2023	07.04.2023 14:04:04	Зачисление	P2P_KMDM_Credit Референс: 309708304990 Код авторизации: 192482	KAZ, Almaty	1000.00	KZT	1000.00	0.00
07.04.2023	07.04.2023 14:06:52	Зачисление	P2P_KMDM_Credit Референс: 309708474667 Код авторизации: 192483	KAZ, Almaty	1000.00	KZT	1000.00	0.00
07.04.2023	07.04.2023 14:10:41	Зачисление	P2P_KMDM_Credit Референс: 309708708273 Код авторизации: 192484	KAZ, Almaty	7000.00	KZT	7000.00	0.00
07.04.2023	07.04.2023 14:15:25	Зачисление	P2P_KMDM_Credit Референс: 309708998285 Код авторизации: 192485	KAZ, Almaty	2000.00	KZT	2000.00	0.00

Figure D.2 Banking statement about donations received, page 2 out of 9

Дата отражения по счету	Дата операции	Тип операции	Детали операции	Страна/Город	Сумма операции	Валюта операции	Приход в валюте счета	Расход в валюте счета
07.04.2023	07.04.2023 15:19:38	Зачисление	MOBILE BANK Референс: 309701187513 Код авторизации: 192486	KAZ, LOCAL	1000.00	KZT	1000.00	0.00
07.04.2023	07.04.2023 15:22:56	Зачисление	P2P_KMDM_Credit Референс: 309709015171 Код авторизации: 192487	KAZ, Almaty	2000.00	KZT	2000.00	0.00
07.04.2023	07.04.2023 15:26:12	Зачисление	MOBILE BANK Референс: 309701191386 Код авторизации: 192488	KAZ, LOCAL	4000.00	KZT	4000.00	0.00
07.04.2023	07.04.2023 15:40:21	Зачисление	MOBILE BANK Референс: 309701200298 Код авторизации: 192489	KAZ, LOCAL	1000.00	KZT	1000.00	0.00
07.04.2023	07.04.2023 16:05:34	Зачисление	P2P_KMDM_Credit Референс: 309710589315 Код авторизации: 192490	KAZ, Almaty	3000.00	KZT	3000.00	0.00
07.04.2023	07.04.2023 16:47:04	Зачисление	P2P_KMDM_Credit Референс: 309710083494 Код авторизации: 192491	KAZ, Almaty	1000.00	KZT	1000.00	0.00
07.04.2023	07.04.2023 17:10:13	Зачисление	MOBILE BANK Референс: 309701256082 Код авторизации: 192492	KAZ, LOCAL	1000.00	KZT	1000.00	0.00
07.04.2023	07.04.2023 17:10:35	Зачисление	MOBILE BANK Референс: 309701256297 Код авторизации: 192493	KAZ, LOCAL	1500.00	KZT	1500.00	0.00
07.04.2023	07.04.2023 18:03:06	Зачисление	MOBILE BANK Референс: 309701292220 Код авторизации: 192494	KAZ, LOCAL	1000.00	KZT	1000.00	0.00
07.04.2023	07.04.2023 20:57:17	Зачисление	P2P_KMDM_Credit Референс: 309714788213 Код авторизации: 192495	KAZ, Almaty	5000.00	KZT	5000.00	0.00
07.04.2023	07.04.2023 21:03:01	Зачисление	P2P_KMDM_Credit Референс: 309715026491 Код авторизации: 192496	KAZ, Almaty	2000.00	KZT	2000.00	0.00
10.04.2023	07.04.2023	Зачисление	MOBILE BANK	KAZ, LOCAL	3210.00	KZT	3210.00	0.00

Figure D.3 Banking statement about donations received, page 3 out of 9

Дата отражения по счету	Дата операции	Тип операции	Детали операции	Страна/Город	Сумма операции	Валюта операции	Приход в валюте счета	Расход в валюте счета
	23:06:06		Референс: 309701475012 Код авторизации: 192497					
10.04.2023	07.04.2023 23:07:30	Зачисление	MOBILE BANK Референс: 309701475711 Код авторизации: 192498	KAZ, LOCAL	5000.00	KZT	5000.00	0.00
10.04.2023	08.04.2023 03:45:44	Зачисление	MOBILE BANK Референс: 309801561975 Код авторизации: 192499	KAZ, LOCAL	500.00	KZT	500.00	0.00
10.04.2023	08.04.2023 03:47:22	Зачисление	MOBILE BANK Референс: 309801562342 Код авторизации: 192500	KAZ, LOCAL	1500.00	KZT	1500.00	0.00
10.04.2023	08.04.2023 03:50:27	Зачисление	P2P_KMDM_Credit Референс: 309721631447 Код авторизации: 192501	KAZ, Almaty	426.00	KZT	426.00	0.00
10.04.2023	08.04.2023 05:04:53	Зачисление	MOBILE BANK Референс: 309801576997 Код авторизации: 192502	KAZ, LOCAL	1000.00	KZT	1000.00	0.00
10.04.2023	08.04.2023 06:23:03	Зачисление	MOBILE BANK Референс: 309801589394 Код авторизации: 192503	KAZ, LOCAL	1000.00	KZT	1000.00	0.00
10.04.2023	08.04.2023 06:45:51	Зачисление	MOBILE BANK Референс: 309801592583 Код авторизации: 192504	KAZ, LOCAL	1000.00	KZT	1000.00	0.00
10.04.2023	08.04.2023 07:46:32	Зачисление	P2P_KMDM_Credit Референс: 309801580216 Код авторизации: 192505	KAZ, Almaty	1000.00	KZT	1000.00	0.00
10.04.2023	08.04.2023 07:48:25	Зачисление	MOBILE BANK Референс: 309801601431 Код авторизации: 192506	KAZ, LOCAL	500.00	KZT	500.00	0.00
10.04.2023	08.04.2023 09:35:34	Зачисление	P2P_KMDM_Credit Референс: 309803432178 Код авторизации: 192507	KAZ, Almaty	500.00	KZT	500.00	0.00
10.04.2023	08.04.2023 09:47:22	Зачисление	MOBILE BANK Референс: 309801626274	KAZ, LOCAL	2300.00	KZT	2300.00	0.00

Figure D.4 Banking statement about donations received, page 4 out of 9

Дата отражения по счету	Дата операции	Тип операции	Детали операции	Страна/Город	Сумма операции	Валюта операции	Приход в валюте счета	Расход в валюте счета
			Код авторизации: 192508					
10.04.2023	08.04.2023 11:17:17	Зачисление	P2P_KMDM_Credit Референс: 309805271657 Код авторизации: 192509	KAZ, Almaty	5000.00	KZT	5000.00	0.00
10.04.2023	08.04.2023 12:21:16	Зачисление	P2P_KMDM_Credit Референс: 309806559525 Код авторизации: 192510	KAZ, Almaty	2000.00	KZT	2000.00	0.00
10.04.2023	08.04.2023 13:36:05	Зачисление	MOBILE BANK Референс: 309801736536 Код авторизации: 192511	KAZ, LOCAL	1000.00	KZT	1000.00	0.00
10.04.2023	08.04.2023 13:38:45	Зачисление	P2P_KMDM_Credit Референс: 309807983203 Код авторизации: 192512	KAZ, Almaty	1000.00	KZT	1000.00	0.00
10.04.2023	08.04.2023 13:43:16	Зачисление	P2P_KMDM_Credit Референс: 309807244660 Код авторизации: 192513	KAZ, Almaty	1000.00	KZT	1000.00	0.00
10.04.2023	08.04.2023 13:50:10	Зачисление	MOBILE BANK Референс: 309801745157 Код авторизации: 192514	KAZ, LOCAL	600.00	KZT	600.00	0.00
10.04.2023	08.04.2023 14:00:45	Зачисление	P2P_KMDM_Credit Референс: 309806258729 Код авторизации: 192515	KAZ, Almaty	2000.00	KZT	2000.00	0.00
10.04.2023	08.04.2023 14:29:48	Зачисление	P2P_KMDM_Credit Референс: 309808947027 Код авторизации: 192516	KAZ, Almaty	3000.00	KZT	3000.00	0.00
10.04.2023	08.04.2023 20:06:39	Зачисление	P2P_KMDM_Credit Референс: 309814645430 Код авторизации: 192517	KAZ, Almaty	1330.00	KZT	1330.00	0.00
10.04.2023	09.04.2023 05:08:19	Зачисление	MOBILE BANK Референс: 309901178169 Код авторизации: 192518	KAZ, LOCAL	1000.00	KZT	1000.00	0.00
10.04.2023	09.04.2023 12:11:23	Зачисление	P2P_KMDM_Credit Референс: 309906166314 Код авторизации: 192519	KAZ, Almaty	2000.00	KZT	2000.00	0.00

Figure D.5 Banking statement about donations received, page 5 out of 9

Дата отражения по счету	Дата операции	Тип операции	Детали операции	Страна/Город	Сумма операции	Валюта операции	Приход в валюте счета	Расход в валюте счета
10.04.2023	09.04.2023 18:35:04	Зачисление	P2P_KMDM_Credit Референс: 309912194211 Код авторизации: 192520	KAZ, Almaty	7000.00	KZT	7000.00	0.00
10.04.2023	09.04.2023 19:02:31	Зачисление	P2P_KMDM_Credit Референс: 309913048776 Код авторизации: 192521	KAZ, Almaty	2000.00	KZT	2000.00	0.00
10.04.2023	10.04.2023 00:41:20	Зачисление	P2P_KMDM_Credit Референс: 309918864819 Код авторизации: 192522	KAZ, Almaty	426.00	KZT	426.00	0.00
10.04.2023	10.04.2023 08:56:20	Зачисление	P2P_KMDM_Credit Референс: 310002608698 Код авторизации: 192523	KAZ, Almaty	10000.00	KZT	10000.00	0.00
10.04.2023	10.04.2023 08:59:40	Зачисление	P2P_KMDM_Credit Референс: 310002699208 Код авторизации: 192524	KAZ, Almaty	1000.00	KZT	1000.00	0.00
10.04.2023	10.04.2023 11:50:42	Зачисление	P2P_KMDM_Credit Референс: 310005719331 Код авторизации: 192525	KAZ, Almaty	1163.00	KZT	1163.00	0.00
10.04.2023	10.04.2023 11:51:02	Зачисление	P2P_KMDM_Credit Референс: 310005736131 Код авторизации: 192526	KAZ, Almaty	800.00	KZT	800.00	0.00
10.04.2023	10.04.2023 11:56:16	Зачисление	P2P_KMDM_Credit Референс: 310005996224 Код авторизации: 192527	KAZ, Almaty	1000.00	KZT	1000.00	0.00
10.04.2023	10.04.2023 13:01:37	Зачисление	MOBILE BANK Референс: 310001818656 Код авторизации: 192528	KAZ, LOCAL	500.00	KZT	500.00	0.00
10.04.2023	10.04.2023 13:02:35	Зачисление	P2P_KMDM_Credit Референс: 310007567195 Код авторизации: 192529	KAZ, Almaty	1800.00	KZT	1800.00	0.00
10.04.2023	10.04.2023 20:39:16	Зачисление	MOBILE BANK Референс: 310001120616 Код авторизации: 192530	KAZ, LOCAL	3000.00	KZT	3000.00	0.00
11.04.2023	11.04.2023	Зачисление	MOBILE BANK	KAZ, LOCAL	3745.00	KZT	3745.00	0.00

Figure D.6 Banking statement about donations received, page 6 out of 9

Дата отражения по счету	Дата операции	Тип операции	Детали операции	Страна/Город	Сумма операции	Валюта операции	Приход в валюте счета	Расход в валюте счета
	19:44:08		Референс: 310101656355 Код авторизации: 192531					
12.04.2023	12.04.2023 13:26:06	Зачисление	P2P_KMDM_Credit Референс: 310207028163 Код авторизации: 192532	KAZ, Almaty	5000.00	KZT	5000.00	0.00
12.04.2023	12.04.2023 22:29:32	Зачисление	P2P_KMDM_Credit Референс: 310216860200 Код авторизации: 192533	KAZ, Almaty	500.00	KZT	500.00	0.00
13.04.2023	13.04.2023 01:08:17	Зачисление	P2P_KMDM_Credit Референс: 310219576053 Код авторизации: 192534	KAZ, Almaty	1000.00	KZT	1000.00	0.00
13.04.2023	13.04.2023 16:59:46	Зачисление	P2P_KMDM_Credit Референс: 310310840490 Код авторизации: 192535	KAZ, Almaty	2000.00	KZT	2000.00	0.00
13.04.2023	13.04.2023 17:07:49	Зачисление	P2P_KMDM_Credit Референс: 310311296485 Код авторизации: 192536	KAZ, Almaty	1000.00	KZT	1000.00	0.00
13.04.2023	13.04.2023 17:16:07	Зачисление	P2P_KMDM_Credit Референс: 310311772896 Код авторизации: 192537	KAZ, Almaty	1500.00	KZT	1500.00	0.00
13.04.2023	13.04.2023 17:20:01	Зачисление	P2P_KMDM_Credit Референс: 310311000538 Код авторизации: 192538	KAZ, Almaty	385.00	KZT	385.00	0.00
13.04.2023	13.04.2023 17:21:44	Зачисление	MOBILE BANK Референс: 310301768157 Код авторизации: 192539	KAZ, LOCAL	1000.00	KZT	1000.00	0.00
13.04.2023	13.04.2023 17:23:28	Зачисление	P2P HB3 WITHOUT 3D Референс: 310352117531 Код авторизации: 192540	KAZ, ALMATY	1500.00	KZT	1500.00	0.00
13.04.2023	13.04.2023 17:23:40	Зачисление	MOBILE BANK Референс: 310301768460 Код авторизации: 192541	KAZ, LOCAL	4000.00	KZT	4000.00	0.00
13.04.2023	13.04.2023	Зачисление	MOBILE BANK	KAZ, LOCAL	500.00	KZT	500.00	0.00

Figure D.7 Banking statement about donations received, page 7 out of 9

Дата отражения по счету	Дата операции	Тип операции	Детали операции	Страна/Город	Сумма операции	Валюта операции	Приход в валюте счета	Расход в валюте счета
	17:27:36		Референс: 310301772071 Код авторизации: 192542					
13.04.2023	13.04.2023 17:27:55	Зачисление	P2P_KMDM_Credit Референс: 310311480587 Код авторизации: 192543	KAZ, Almaty	5000.00	KZT	5000.00	0.00
13.04.2023	13.04.2023 17:41:43	Зачисление	P2P_KMDM_Credit Референс: 310311288170 Код авторизации: 192544	KAZ, Almaty	1000.00	KZT	1000.00	0.00
13.04.2023	13.04.2023 17:51:00	Зачисление	P2P_KMDM_Credit Референс: 310311814201 Код авторизации: 192545	KAZ, Almaty	2000.00	KZT	2000.00	0.00
13.04.2023	13.04.2023 18:08:17	Зачисление	P2P_KMDM_Credit Референс: 310312843534 Код авторизации: 192546	KAZ, Almaty	5000.00	KZT	5000.00	0.00
13.04.2023	13.04.2023 18:15:30	Зачисление	MOBILE BANK Референс: 310301804832 Код авторизации: 192547	KAZ, LOCAL	1000.00	KZT	1000.00	0.00
13.04.2023	13.04.2023 18:15:40	Зачисление	MOBILE BANK Референс: 310301804946 Код авторизации: 192548	KAZ, LOCAL	500.00	KZT	500.00	0.00
13.04.2023	13.04.2023 18:24:06	Зачисление	P2P_KMDM_Credit Референс: 310312806987 Код авторизации: 192549	KAZ, Almaty	139.00	KZT	139.00	0.00
13.04.2023	13.04.2023 18:25:57	Зачисление	P2P_KMDM_Credit Референс: 310312920038 Код авторизации: 192550	KAZ, Almaty	500.00	KZT	500.00	0.00
13.04.2023	13.04.2023 18:27:43	Зачисление	MOBILE BANK Референс: 310301814259 Код авторизации: 192551	KAZ, LOCAL	500.00	KZT	500.00	0.00
13.04.2023	13.04.2023 18:32:45	Зачисление	P2P_KMDM_Credit Референс: 31031233812 Код авторизации: 192552	KAZ, Almaty	1000.00	KZT	1000.00	0.00
13.04.2023	13.04.2023 18:32:50	Зачисление	P2P_KMDM_Credit Референс: 310312338781	KAZ, Almaty	2000.00	KZT	2000.00	0.00

Figure D.8 Banking statement about donations received, page 8 out of 9

Дата отражения по счету	Дата операции	Тип операции	Детали операции	Страна/Город	Сумма операции	Валюта операции	Приход в валюте счета	Расход в валюте счета
			Код авторизации: 192553					
13.04.2023	13.04.2023 18:41:42	Зачисление	P2P_KMDM_Credit Референс: 310312878198 Код авторизации: 192554	KAZ, Almaty	1000.00	KZT	1000.00	0.00
13.04.2023	13.04.2023 19:27:32	Зачисление	P2P_KMDM_Credit Референс: 310313303189 Код авторизации: 192555	KAZ, Almaty	1000.00	KZT	1000.00	0.00
13.04.2023	13.04.2023 19:27:38	Зачисление	P2P_KMDM_Credit Референс: 310313308638 Код авторизации: 192556	KAZ, Almaty	300.00	KZT	300.00	0.00
13.04.2023	13.04.2023 19:34:24	Зачисление	P2P_KMDM_Credit Референс: 310313705270 Код авторизации: 192557	KAZ, Almaty	300.00	KZT	300.00	0.00
13.04.2023	13.04.2023 20:04:42	Зачисление	P2P_KMDM_Credit Референс: 310314837942 Код авторизации: 192558	KAZ, Almaty	1000.00	KZT	1000.00	0.00
13.04.2023	13.04.2023 20:44:02	Зачисление	MOBILE BANK Референс: 310301908672 Код авторизации: 192559	KAZ, LOCAL	40000.00	KZT	40000.00	0.00
13.04.2023	13.04.2023 20:44:25	Зачисление	MOBILE BANK Референс: 310301908618 Код авторизации: 192560	KAZ, LOCAL	30000.00	KZT	30000.00	0.00
Заблокированные суммы по счету: KZ58998PB00007332822 KZT								
Дата отражения по счету	Дата операции	Тип операции	Детали операции	Страна/Город	Сумма операции	Валюта операции	Приход в валюте счета	Расход в валюте счета
Всего							0.00	0.00
Транзакции по счету: KZ58998PB00007332823 USD								
Дата отражения по счету	Дата операции	Тип операции	Детали операции	Страна/Город	Сумма операции	Валюта операции	Приход в валюте счета	Расход в валюте счета
Всего							0.00	0.00
Заблокированные суммы по счету: KZ58998PB00007332823 USD								

Figure D.9 Banking statement about donations received, page 9 out of 9