Faculty of Computing

Department of Software Engineering

FINAL YEAR PROJECT

REPORT

TOPIC:

Fundraising Campaign

GROUP MEMBERS

Umm-e-Ammara
4055-FBAS/BSSE/F20
(umm.bsse4055@iiu.edu.pk)

Siddiqa Rashid
4069-FBAS/BSSE/F20
(siddiqa.bsse4069@iiu.edu.pk)

Supervisor

Ma’am Saba Tamouri

SPRING-2023
27 November 2023

CONTENTS

List of Figures:

CHAPTER 1: INTRODUCTION

1.1 Introduction of Project:

Fundraising Community is a platform where individuals can independently raise funds online securely. Our platform utilizes block chain technology for a safer and more trustworthy fund transfer system. With a user-friendly environment, you can easily run campaigns and donate with a simple click. Using a crypto wallet, you can directly contribute through cryptocurrency, bypassing third-party banks. Our Aim is to say goodbye to traditional methods to build a safer, globally accessible and efficient system.

1.2 Purpose:

Our project aims to develop a web-based fundraising platform, utilizing blockchain technology to revolutionize digital fundraising. In contrast to traditional platforms relying on conventional money transfer methods, our solution focuses on enhancing security, transparency, and efficiency through the strategic integration of blockchain.

1.3 Project Motivation:

In today's digital age, fundraising plays a pivotal role in enabling individuals, organizations, and causes to realize their goals and create positive impacts on society. However, traditional fundraising platforms often encounter challenges related to security, transparency, and efficiency. Conventional methods of transferring funds may be prone to fraudulent activities, lack transparency in tracking donations, and entail lengthy processing times.

Recognizing these shortcomings, our project seeks to introduce a transformative approach to digital fundraising by harnessing the power of blockchain technology. Blockchain, renowned for its decentralized and immutable nature, offers unparalleled advantages in terms of security, transparency, and efficiency. By leveraging blockchain technology, we aim to revolutionize the landscape of digital fundraising, empowering both fundraisers and donors with enhanced trust and reliability.

The motivation behind our project is multi-faceted:

- **Enhanced Security**: Blockchain's cryptographic techniques and decentralized architecture ensure that transactions are secure and tamper-proof. By utilizing blockchain, our platform mitigates the risk of fraudulent activities, protecting both fundraisers and donors from potential threats.
- **Transparency and Accountability**: Transparency is paramount in fundraising to build trust among donors and ensure that funds are allocated appropriately. Blockchain's transparent ledger system enables real-time tracking of donations, providing donors with full visibility into how their contributions are utilized. This fosters accountability and strengthens the bond of trust between fundraisers and donors.
- **Efficiency and Cost Reduction**: Traditional fundraising platforms often involve intermediaries and complex processes, leading to inefficiencies and high transaction costs. By integrating blockchain technology, our platform streamlines the fundraising process, automating tasks such as verification and disbursement of funds. This not only enhances efficiency but also reduces operational costs, enabling more resources to be directed towards the cause itself.
- **Global Accessibility**: Blockchain technology transcends geographical boundaries, offering global accessibility to fundraisers and donors alike. Our platform eliminates barriers associated with traditional banking systems, allowing individuals from across the globe to participate in fundraising efforts seamlessly.

Our project is motivated by the vision of redefining digital fundraising through the strategic integration of blockchain technology. Through innovation and a commitment to social impact, we aspire to bring positive change and create a more transparent ecosystem for fundraising on a global scale.

1.4 Scope:

To build a reliable and trustworthy community, our platform is designed to enhance security and credibility by eliminating the involvement of third parties. To design a system that not only

is user friendly but also empower the people of community to engage and help in making society a better place.

1.4.1 Modules:

The system involves two modules:

- User (Run-campaign and Donate)
- Administrator (Approve campaign)

In terms of scope, following are the **features** with **respect to each module**:

User:

- Signup
- Login
- ChatBot
- Donate money
- Manage Profile
- Select Template
- View Campaign
- Create Campaign
- Cancel Campaign
- Search Campaign
- Provide Feedback
- Providing Guidelines
- Real Time Notification
- Social media Integration
- View donators of Campaign
- Review and Rate Campaign
- View campaigns running on other platforms

Administrator:

- Signup
- Login
- Manage Profile
- Provide Feedback
- Manage Complains
- Manage Database
- Approve/Disapprove Campaign

CHAPTER 2: PROBLEM ANALYSIS

2.1 Existing System:

Existing fundraising platforms rely on traditional money transfer methods which can expose users to various risks. These risks include:

- **Information Theft:** When users provide sensitive financial information to traditional fundraising platforms, such as credit card details or bank account numbers, they are vulnerable to potential data breaches and information theft. Hackers may target these platforms to steal personal and financial data, leading to identity theft or fraudulent transactions.
- **System Disruption**: Centralized fundraising platforms are susceptible to system disruptions caused by technical failures or cyberattacks. A single point of failure within the platform's infrastructure can disrupt the entire fundraising process, leading to delays in donations or even loss of funds. Moreover, downtime or service interruptions can undermine donor trust and impede fundraising efforts.

2.2 Drawbacks of Existing System:

Traditional methods of money transfer in fundraising platforms can pose several challenges and problems. Here are some common issues associated with traditional fundraising methods:

2.2.1 Slow Processing Time:

Traditional methods such as checks or bank transfers can take a significant amount of time to process. This delay can be inconvenient for both donors and fundraisers, especially in urgent situations.

2.2.2 High Transaction Costs:

Transaction fees associated with traditional methods can be relatively high. For example, banks may charge fees for wire transfers, and check processing can also incur costs. These fees reduce the overall amount of money that reaches the intended cause.

2.2.3 Limited Accessibility:

Traditional methods may require physical presence or access to specific banking services, limiting the accessibility of the fundraising platform. This can be a barrier for potential donors who may not have easy access to banks or financial institutions.

2.2.4 Geographic Restrictions:

Traditional methods may have limitations when it comes to international transactions. Cross-border transfers can be more complicated, expensive, and time-consuming, making it challenging for global fundraising efforts.

2.2.5 Security Concerns:

Paper-based transactions, such as checks, are susceptible to loss, theft, or forgery. This poses a risk to both the donor and the fundraising platform's integrity.

2.2.6 Lack of Transparency:

Traditional methods may lack transparency in terms of tracking and reporting transactions. This can create challenges in providing donors with real-time updates on fundraising progress.

2.3 Proposed System:

To address the challenges associated with traditional methods, our objective is to establish a system that surpasses existing ones in terms of security, transparency, and efficiency. Blockchain technology plays a vital role in achieving these goals in the following manner:

2.3.1 Security through Cryptography:

Blockchain relies on cryptographic methods to secure transactions. Every transaction will be securely recorded within a block, and these blocks will be interconnected through cryptographic hashes. This process guarantees the integrity and security of the data.

2.3.2 Decentralization:

Unlike traditional fundraising platforms that operate on centralized servers, which are susceptible to hacking, blockchain operates in a decentralized manner. It will distribute data across a network of nodes, eliminating a single point of failure and bolstering overall security.

2.3.3 Smart Contracts:

Smart contracts are self-executing agreements with terms directly coded into the system. They will automate and enforce contract rules, reducing reliance on intermediaries.

2.3.4 Transparency:

Blockchain establishes a transparent and immutable ledger. All network participants will access the same information, and once a block is added to the chain, it becomes unalterable. This transparency fosters trust among donors, enabling them to verify fund utilization and track project progress.

2.3.5 Reduced Transaction Costs:

Unlike traditional methods involving intermediaries with associated fees, blockchain transactions can help in cutting out these intermediaries. This reduction in transaction costs ensures that a larger portion of funds reaches the intended recipients.

2.3.6 Global Accessibility:

Operating on a global scale, blockchain facilitates fundraising without the constraints imposed by traditional banking systems. This broadens fundraising opportunities to a global audience and streamlines cross-border transactions without the need for currency conversions.

2.4 Stakeholders:

- Project Team
- University Faculty and Advisors (Supervisor & Panel Members)
- User, Administrator & Authenticated User (Donaters & Fundraisers)
- Blockchain Expert

2.5 Actor Goal List:

Actor	Goal
User	● Signup ● ChatBot ● View Campaign ● Search Campaign ● Providing Guidelines ● View campaigns running on other platforms

Authenticated User	• Login • ChatBot • Donate money • Manage Profile • Select Template • View Campaign • Create Campaign • Cancel Campaign • Search Campaign • Provide Feedback • Providing Guidelines • Real Time Notification • Social media Integration • View donors of Campaign • Review and Rate Campaign • View campaigns running on other platforms
Administrator	• Signup • Login • Manage Profile • Provide Feedback • Manage Complains

Administrator	• Manage Database • Approve/Disapprove Campaign

CHAPTER 3: SYSTEM ANALYSIS

3.1 Problem Overview:

The shortcomings of traditional fundraising methods encompass a range of challenges that are mentioned below. Addressing these issues is essential to enhance the effectiveness and credibility of fundraising efforts, ultimately maximizing the impact of charitable initiatives and social causes.

- **Operational Inefficiencies**: Traditional fundraising often involves manual processes, paperwork, and intermediary institutions such as banks or payment processors. These processes can be time-consuming and prone to errors, leading to delays in fund disbursement and inefficient use of resources.
- **Financial Obstacles**: Conventional fundraising methods may entail high transaction fees associated with banking or payment processing services. These fees can eat into the funds raised, reducing the overall impact of the fundraising efforts. Additionally, fundraising campaigns may struggle to reach a wide audience due to limited payment options or geographical constraints.
- **Security Risks**: Traditional fundraising platforms are susceptible to security breaches, fraud, and misuse of funds. Centralized systems can be targeted by hackers, leading to data breaches or theft of sensitive information. Moreover, the lack of transparency in tracking donations can raise concerns among donors regarding the integrity of the fundraising process.
- **Limited Accessibility**: Geographical barriers and regulatory constraints can hinder the accessibility of traditional fundraising platforms. Certain regions may have limited access to banking services or face restrictions on cross-border transactions, limiting the potential donor pool and hindering fundraising efforts.
- **Lack of Transparency**: Transparency is crucial in fundraising to build trust among donors and ensure accountability in fund allocation. However, traditional methods often lack transparency in tracking donations and monitoring how funds are utilized. This

opacity can undermine donor confidence and hinder the success of fundraising campaigns.

3.2 Functional Requirements:

3.2.1 User Registration and Authentication:

- Users should be able to create accounts securely.
- Implement email verification or two-factor authentication for added security.

3.2.2 User Profile Management:

- Users should be able create and manage their profiles, including personal information, campaign history, and contact details.

3.2.3 Campaign Creation:

- Users should be able to create new fundraising campaigns with details such as title, description, fundraising goal, and campaign end date.
- Option to set up a smart contract on the Ethereum blockchain for campaign funds.

3.2.4 Donation Processing:

- It should provide a secure mechanism for users to donate funds to campaigns, utilizing Ethereum for transactions.
- It should be able to display real-time updates on campaign funding status.

3.2.5 Campaign Visibility:

- Users should be able to view a list of active campaigns on the platform.
- Each campaign should display relevant details, such as the amount raised, percentage of goal achieved, and time remaining.

3.2.6 Donor Visibility:

- Fundraisers should be able to see a list of donors who have contributed to their campaigns.
- Donors should be able to choose whether they want to remain anonymous or have their names publicly displayed.

3.2.7 Campaign Templates:

- Users should be able to select and save campaign templates to expedite the process of starting new campaigns with predefined settings and content.

3.2.8 Campaign Sharing:

- Users should be able to share their campaigns on social media platforms directly from the platform.
- Should provide unique campaign URLs for easy sharing.

3.2.9 Notifications:

- Users should be able to receive notifications for important events, such as new donations, campaign updates, and campaign completion
- It should allow users to customize notification preferences.

3.2.10 Campaign Management:

- Fundraisers should be able to edit, pause, or cancel their campaigns.
- Users should be able to view and manage their ongoing and completed campaigns.

3.2.11 Admin Features:

- Admin should be able to review and approve/disapprove campaigns based on guidelines.
- Admin should be able to manage user complaints and disputes.

3.2.12 User Feedback:

- Users should be able to leave feedback or comments on campaigns.
- Fundraisers should be able respond to donor comments.

3.2.13 Privacy Controls:

- Users should be able to control the visibility of their profiles and decide whether donor names are displayed publicly.

3.2.14 Profile Customization:

- Users should be able to customize their profiles with profile pictures and additional details.

3.2.15 Educational Resources:

- It should provide educational resources on blockchain and cryptocurrency for users who may not be familiar with the technology.

3.2.16 Search and Filtering:

- Users should be able to search for specific campaigns or filter campaigns based on categories, popularity, or end date.

3.2.17 User Support:

- It should provide a support system for users to reach out for assistance or report issues.

3.2.18 Legal Compliance:

- It should ensure compliance with legal and regulatory requirements for fundraising platforms and cryptocurrency transactions.

Regularly updating and maintaining these functional requirements will help ensure the smooth operation of the fundraising platform, enhance user experience, and foster trust among users.

3.3 Non Functional Requirements:

3.3.1 Performance:

Response Time:

Ensure that the platform responds to user actions within a specified time limit (e.g., page load times, transaction processing).

Scalability:

The platform should handle increased user and transaction loads efficiently.

3.3.2 Availability:

The system should aim for a high level of availability (e.g., 99.9% uptime) to ensure users can access the platform reliably.

3.3.3 Security

- All user data and transactions must be secured using encryption.
- Implement robust measures to protect against common web vulnerabilities (e.g., SQL injection, Cross-Site Scripting).
- Regular security audits and updates to address emerging threats.

3.3.4 Blockchain Security:

- Ensure the security of smart contracts on the Ethereum blockchain.
- Implement mechanisms to protect against potential vulnerabilities in blockchain network.

3.3.5 User Experience (UX):

- The platform should provide a seamless and user-friendly experience, with intuitive navigation and responsive design.
- Accessibility standards should be followed to ensure inclusivity.

3.3.6 Maintainability:

- Code should follow industry best practices to facilitate ease of maintenance.
- Regularly update software dependencies and libraries.

3.3.7 Reliability:

- The platform should be reliable, with minimal downtime and quick recovery from any service interruptions.
- Implement automated backup and recovery mechanisms.

3.3.8 Monitoring and Logging:

- Implement robust monitoring tools to track system performance, user activity, and **security** events.
- Maintain detailed logs for auditing and troubleshooting purposes.

3.3.9 Documentation:

- Provide comprehensive documentation for users, administrators, and developers.
- Include user manuals, API documentation, and system architecture documentation.

3.3.10 User Education:

- Provide educational resources for users about blockchain, cryptocurrency, and the platform's features.
- Implement tooltips and guidance within the platform to assist users.

3.3.11 Privacy:

- Implementing privacy controls to protect user data and allow users to manage their privacy settings
- Comply with data protection standards and regulations.

These non-functional requirements are essential to ensure the robustness, security, and usability of the fundraising platform, enhancing user trust and satisfaction. Regular testing, monitoring, and updates will contribute to the ongoing success of the platform.

3.4 Use Case Diagram:

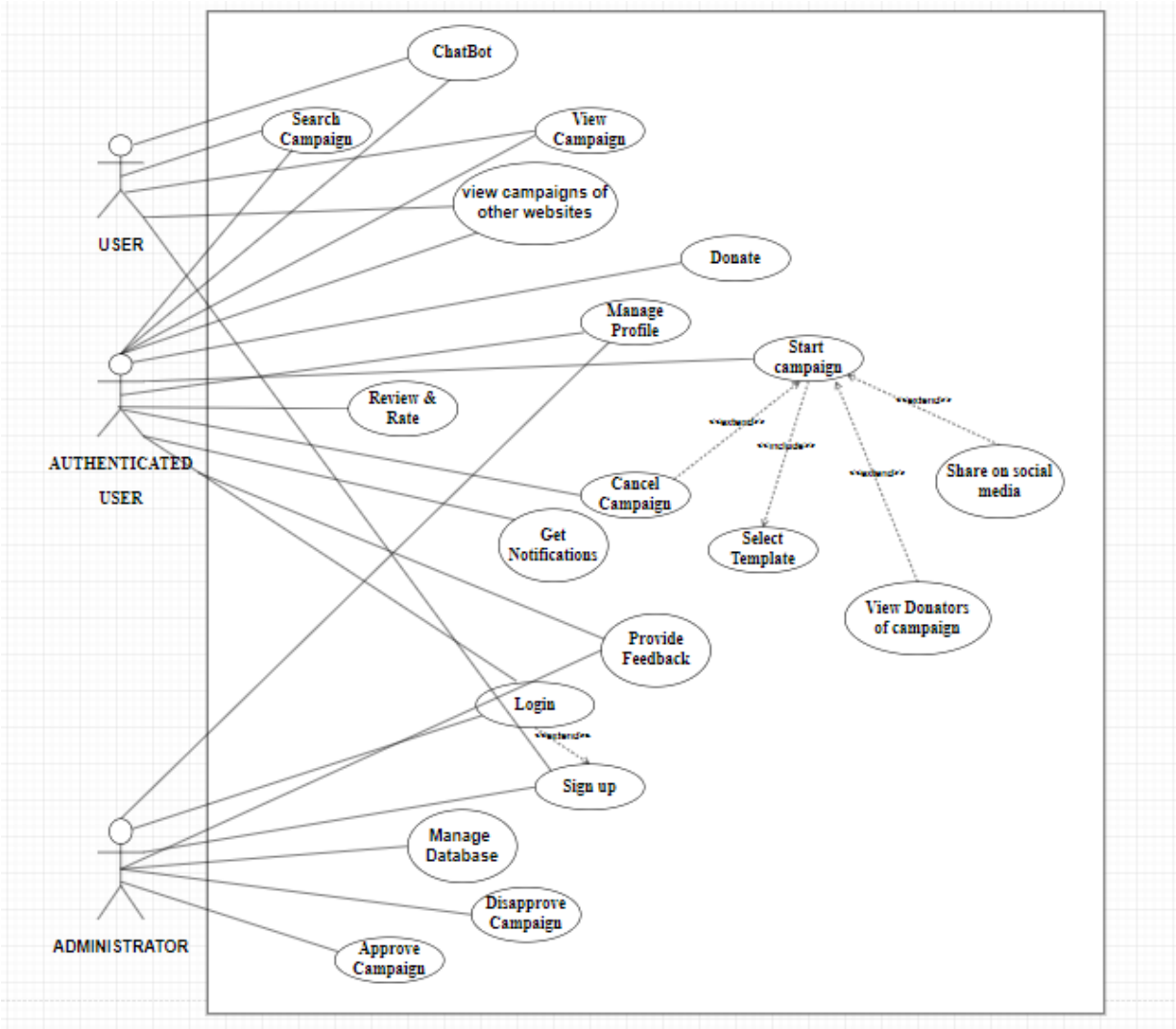

Figure 1. Use Case Diagram

3.5 Fully Dressed Use cases:

3.5.1 Sign Up

ID: UC01
Name: Sign Up
Primary Actor: ● Admin ● Users who want to run campaigns and donators
Scope: Main Function
Level: User goal
Stakeholders & Interests: Users and admin
Pre-Condition: User must have an email account and account on ethereum.
Post-Condition: User's account should be created on Fundraising Community website
Main Success Scenario:

User	**System**
1. User will click Sign up option	2. System will open Sign up page
3. User will add username email account password and ethereum account and click sign up	4. System will verify credentials from respective platforms and add users account to the platform

Alternative Scenario: 2a. System doesn’t open the sign up page. 3a. Users add wrong credentials in any or all rows. 4a. System will not allow the user to make an account.
Frequency: High

3.5.2 Login

ID: UC02
Name: Login
Primary Actor: Authenticated Users
Scope: Main Function
Level: User goal
Stakeholders & Interests: Authenticated users and admin
Pre-Condition: Users must have an account on the Fundraising Community.
Post-Condition: User will log in to the system.
Main Success Scenario:

User	**System**
1. User will click Login option	2. System will open Login page
3. User will add username email account password and ethereum account and click Log In	4. System will verify credentials and allow users to log in.

Alternative Scenario:

2a. System doesn't open the login page.

3a. Users add wrong credentials in any or all rows.

4a. System will not allow you to open an account.
Frequency: High

3.5.3 Start Campaign

ID: UC03
Name: Start campaign
Primary Actor: Authenticated users
Scope: Main Function
Level: User goal
Stakeholders & Interests: Authenticated users
Pre-Condition: User must have logged in to their account.
Post-Condition: Campaign will be added to the list for approval.

Main Success Scenario:

User	**System**
1. User will click start campaign option	2. System will open campaign form
3. User will enter target(money), deadline, title, story, media, links in respective fields and submit it	4. System will save information. And will add it to the campaign list.

Alternative Scenario:

2a. System doesn't open a campaign form.

3a. User misses any input field or submits without adding any information.

4a. System will show empty fields and will ask to fill information to all fields.

Frequency: High

3.5.4 Donate Money

ID: UC04
Name: Donate money
Primary Actor: Authenticated users
Scope: Main Function
Level: User goal
Stakeholders & Interests: Authenticated users
Pre-Condition: User must have logged in to their account.
Post-Condition: 1. Selected money will be deducted from user's account 2. Amount will be added to the running campaign

Main Success Scenario:

User	**System**
1. User will click donate option	2. System will open a running campaigns page.
3. User will select campaign	4. System will open that campaign.
5. User will enter amount to donate	6. System verifies if the user has selected an amount in their account and will add the amount to the campaign.

	7. System will give option to go back to the home screen
8. User will select that option and go to the home screen	

Alternative Scenario:

2a. System doesn't open a running campaign page.

4a. System doesn't open a selected campaign.

5a. User enters more than the target amount.

6a. System will only deduct money that is needed.

5b. User enters a targeted amount but there is not enough money in their account.

6b. System will inform users that money is not enough.

Frequency: High

3.5.5 Manage Profile

ID: UC05
Name: Manage profile
Primary Actor: Authenticated users
Scope: Sub Function
Level: User goal
Stakeholders & Interests: Authenticated users
Pre-Condition: Users must have an account on the Fundraising Community website.
Post-Condition: Changes should be added to the user's account

Main Success Scenario:

User	**System**
1. User will click Settings option	2. System will open the settings page.
3. User will select any options from (user name, about, profile image, password)	4. System will open a selected category.
5. User will make changes in the opened category and click save option.	6. System will save changes.

Alternative Scenario:

2a. System doesn't open the settings page.

4a. System doesn’t open the selected category. 5a. User adds the same password. 6a. System will ask the user to enter a different password.
Frequency: Medium

3.5.6 Search Campaign

ID: UC06
Name: Search campaign
Primary Actor: Users & Authenticated Users
Scope: Sub Function
Level: User goal
Stakeholders & Interests: Users & Authenticated Users
Pre-Condition: Internet should be connected.
Post-Condition: Searched campaign should be shown on the page.

Main Success Scenario:

User	**System**
1. User will click search option	2. System will open a search option and provide filters to search campaigns.
3. Users will select any filter or can add directly names of campaigns or fundraisers to search campaigns, then search or select filters or names.	4. System will open selected campaigns.

Alternative Scenario:

2a. System doesn't provide filters to search.

3a. User enters any name that doesn't exist on the platform. 4a. System will tell the user there is no such campaign with a name.
Frequency: High

3.5.7 Cancel Campaign

ID: UC07
Name: Cancel campaign.
Primary Actor: Authenticated User
Scope: Sub Function
Level: User goal
Stakeholders & Interests: Authenticated Users
Pre-Condition: **U**ser should be the fundraiser of the campaign that is going to be canceled.
Post-Condition: Campaign should be canceled and removed from campaign page.
Main Success Scenario:

User	**System**
1. User will select cancel campaign option	2. System will confirm from the user if they really want to cancel the campaign.
3. User will confirm.	4. System will remove it from the records and page.

Alternative Scenario:

2a. System doesn't confirm whether users want to cancel the campaign.

4a. System removes it from records but it is still showing on the page.

Frequency: Low

3.5.8 Select Template

ID: UC08

Name: Select template

Primary Actor: Users (Fundraisers)

Scope: Sub Function

Level: User goal

Stakeholders & Interests: Authenticated User (Fundraisers)

Pre-Condition: Campaign should already be created.

Post-Condition: Template should be added to the campaign.

Main Success Scenario:

User	**System**
1. User will select template option	2. System will open a template page.
3. User will select any template.	4. System will add a selected template to the campaign.

Alternative Scenario:

2a. System doesn't open the template page.

4a. System doesn't add selected template to the campaign.

Frequency: Medium

3.5.9 Share on Social Media

ID: UC09
Name: Share on social media
Primary Actor:
Scope: Sub Function
Level: User goal (Fundraiser)
Stakeholders & Interests: Authenticated Users
Pre-Condition: Campaign should already be created.
Post-Condition: Campaign should be shared on other platforms.
Main Success Scenario:

User	**System**
1. User will select share option	2. System will open a share option to share this on other platforms.
3. User will select any platform (i.e. whatsapp, Instagram, twitter) from provided options.	4. System will add a selected template to the campaign.

Alternative Scenario:

2a. System doesn't open a share option.

4a. System doesn't share on the platform.

Frequency: High

3.5.10 Ask Questions from Chatbot

ID: UC10

Name: Ask questions from chatbot

Primary Actor: User and Authenticated User

Scope: Sub Function

Level: User goal

Stakeholders & Interests: Users & Authenticated Users

Pre-Condition: Internet should be connected.

Post-Condition: Chatbot should provide answers and ask users to clear their confusion from the platform.

Main Success Scenario:

User	**System**
1. User will select chat option	2. System will open a chatbot.
3. User will type questions and enter.	4. Chatbot will answer their question.

Alternative Scenario:

2a. System doesn't open the Chatbot option.

4a. Chatbot doesn't answer the question.

Frequency: High

3.5.11 Give Review of Campaign

ID: UC11

Name: Give review of campaign

Primary Actor: Authenticated User

Scope: Sub Function

Level: User goal

Stakeholders & Interests: Users (Fundraisers)

Pre-Condition: Campaign should be completed.

Post-Condition: Reviews should be added to the completed campaign.

Main Success Scenario:

User	**System**
1. User will select add review option	2. System will open the text area.
3. User will type their review and enter.	4. System will add their review.

Alternative Scenario:

2a. System doesn't open the text area.

4a. System doesn't add the review.

Frequency: High

3.5.12 Add Feedback

ID: UC12
Name: Add feedback
Primary Actor: Authenticated Users
Scope: Main Function
Level: User goal
Stakeholders & Interests: Users
Pre-Condition: Internet should be connected.
Post-Condition: Reviews should be added to the Website.

Main Success Scenario:

User	System
1. User will select the Give feedback option.	2. System will open the text area.
3. User will type their review and enter.	4. System will add their review to the website.

Alternative Scenario:

2a. System doesn't open the text area.

4a. System doesn't add feedback.

Frequency: Low

3.5.13 Approve Campaign

<table>
<tr><td>ID: UC13</td></tr>
<tr><td>Name: Approve campaign</td></tr>
<tr><td>Primary Actor: Admin</td></tr>
<tr><td>Scope: Main Function</td></tr>
<tr><td>Level: Admin goal</td></tr>
<tr><td>Stakeholders & Interests: Authenticated users</td></tr>
<tr><td>Pre-Condition: User should be logged in from the admin account.</td></tr>
<tr><td>Post-Condition: Campaign should be added to the Website.</td></tr>
<tr><td>Main Success Scenario:

<table>
<tr><th>User</th><th>System</th></tr>
<tr><td>1. User will select the campaign and select approve.</td><td>2. System will add campaign to the website.</td></tr>
</table>
</td></tr>
<tr><td>Alternative Scenario:

2a. System doesn’t add campaign to the system.</td></tr>
<tr><td>Frequency: High</td></tr>
</table>

3.5.14 Disapprove Campaign

<table>
<tr><td>ID: UC14</td></tr>
<tr><td>Name: Disapprove campaign</td></tr>
<tr><td>Primary Actor: Admin</td></tr>
<tr><td>Scope: Main Function</td></tr>
<tr><td>Level: Admin goal</td></tr>
<tr><td>Stakeholders & Interests: Authenticated users</td></tr>
<tr><td>Pre-Condition: User should be logged in from the admin account.</td></tr>
<tr><td>Post-Condition: User should be informed.</td></tr>
<tr><td>Main Success Scenario:

<table>
<tr><th>User</th><th>System</th></tr>
<tr><td>1. User will select campaign and select disapprove.</td><td>2. System will remove the campaign from.</td></tr>
</table>
</td></tr>
<tr><td>Alternative Scenario:

2a. System doesn’t remove the campaign from the list.</td></tr>
<tr><td>Frequency: Low</td></tr>
</table>

3.5.15 Manage Complaints

ID: UC15
Name: Manage complaints
Primary Actor: Admin
Scope: Main Function
Level: Admin goal
Stakeholders & Interests: Authenticated users
Pre-Condition: User should be logged in from the admin account.
Post-Condition: User should be informed.

Main Success Scenario:

User	**System**
1. User will select complaints and select complaint.	2. System will open complaint.
3. User will review and solve then select resolved.	4. System will inform the user and remove it from the list.

Alternative Scenario:

2a. System doesn't open complaints.

3a. User solved the problem but didn't click resolved

4a. System doesn’t inform user 4b. System doesn’t remove the complaint from the list.
Frequency: High

3.5.16 Get Notifications

ID: UC16
Name: Get notifications
Primary Actor: Users
Scope: Main Function
Level: Admin goal
Stakeholders & Interests: Authenticated users
Pre-Condition: User should be logged in from the admin account.
Post-Condition: Notification should be marked as done.
Main Success Scenario:

User	**System**
1. User will select Notifications and select any notification.	2. System will open a selected notification.

Alternative Scenario: 2a. System doesn't open notifications.
Frequency: High

3.5.17 View donators of Campaign

ID: UC17
Name: View donators of campaign
Primary Actor: Users
Scope: Main Function
Level: Fundraiser goal
Stakeholders & Interests: Authenticated users
Pre-Condition: Campaign should be opened.
Post-Condition: Null.
Main Success Scenario:

User	**System**
1. User will select Donators.	2. System will show donors of the campaign.

Alternative Scenario: 2a. System doesn't show donors.
Frequency: High

CHAPTER 4: SYSTEM DESIGN

4.1 Class Diagram:

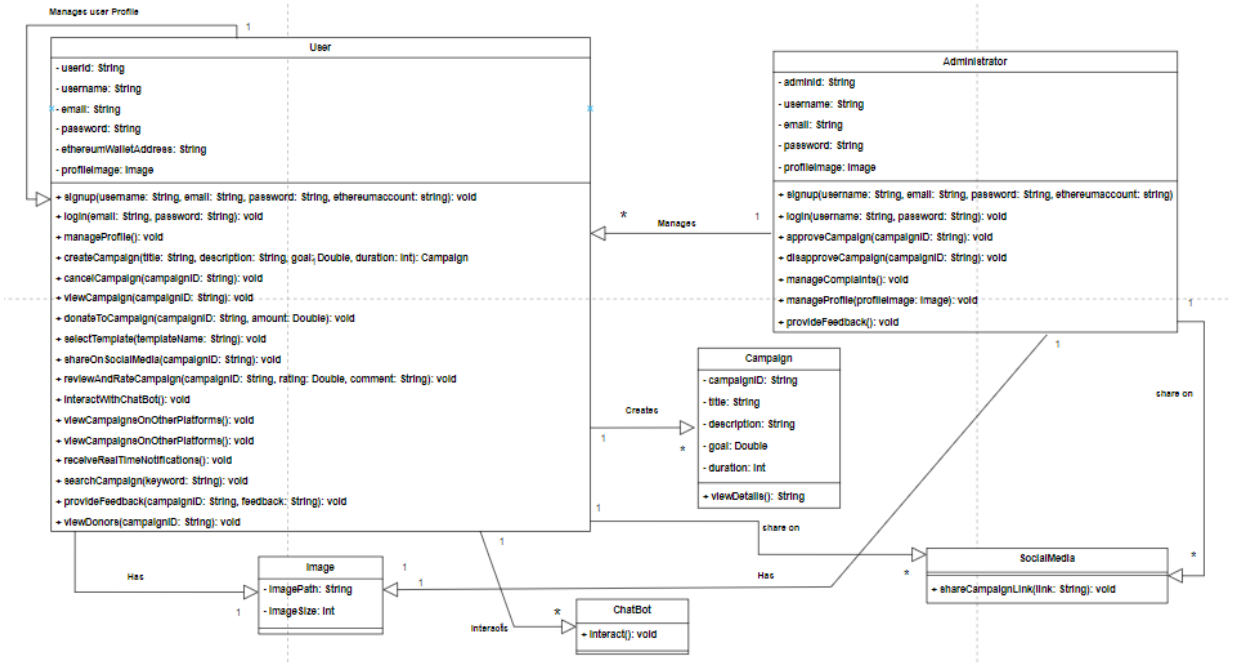

Figure 2. Class Diagram

4.2 Interaction (Sequence Diagram):

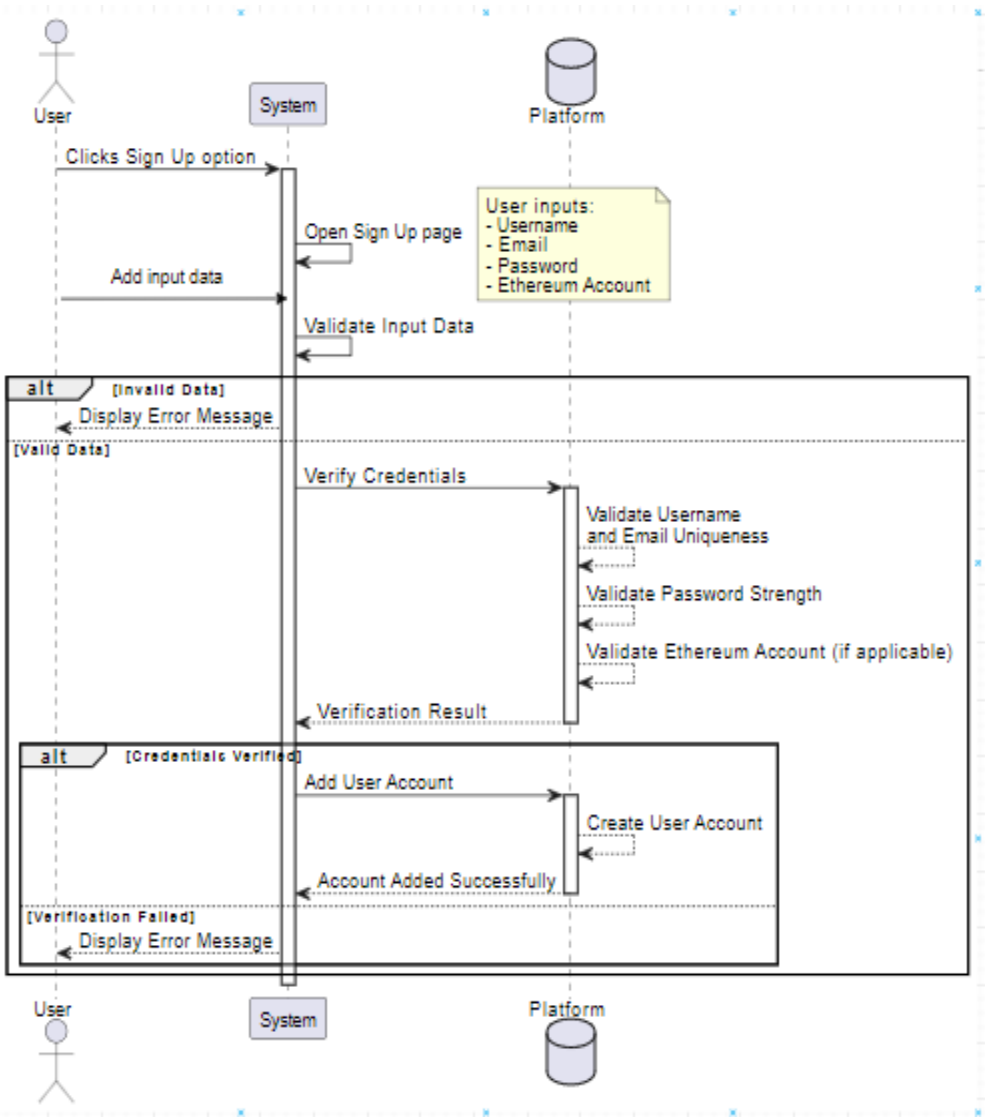

Figure 3. Signup

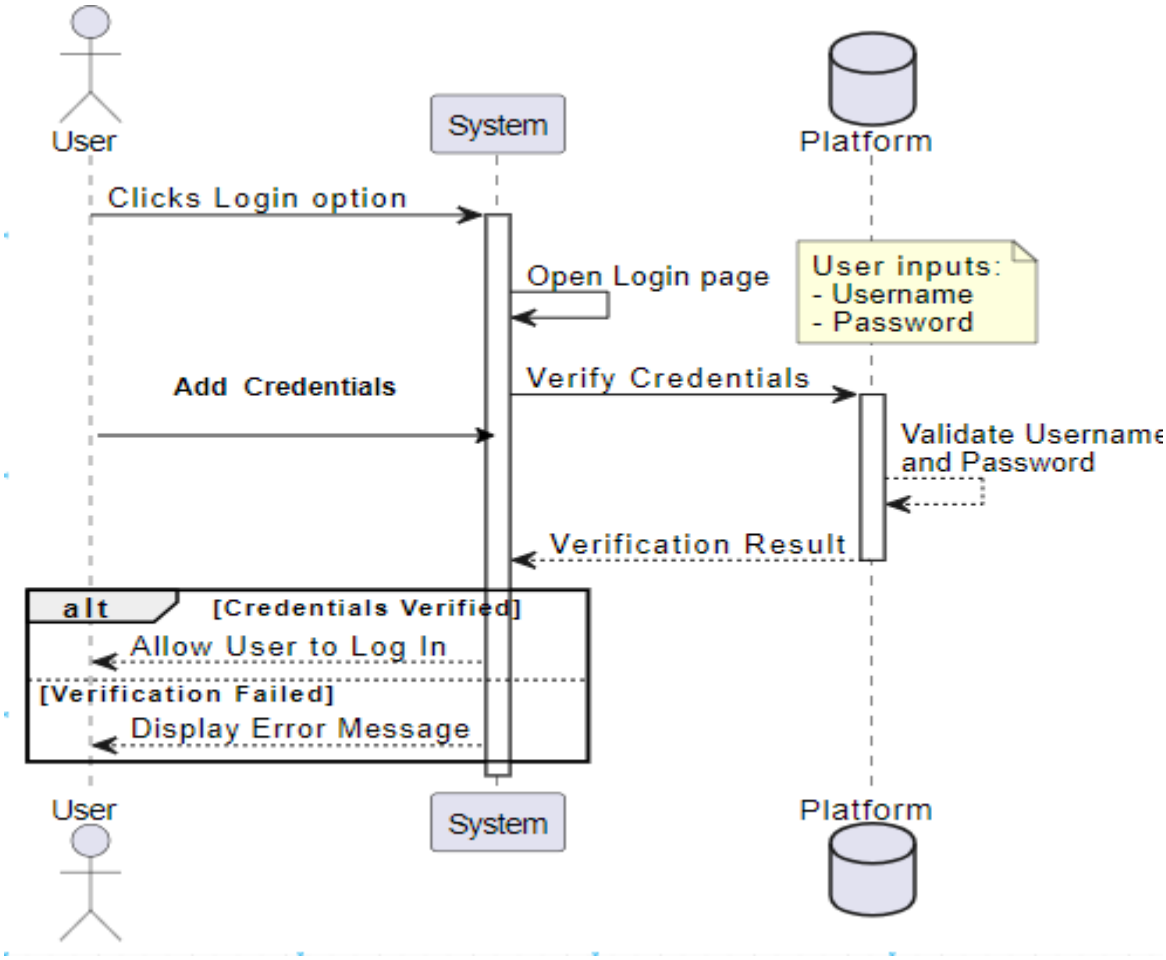

Figure 4. Login

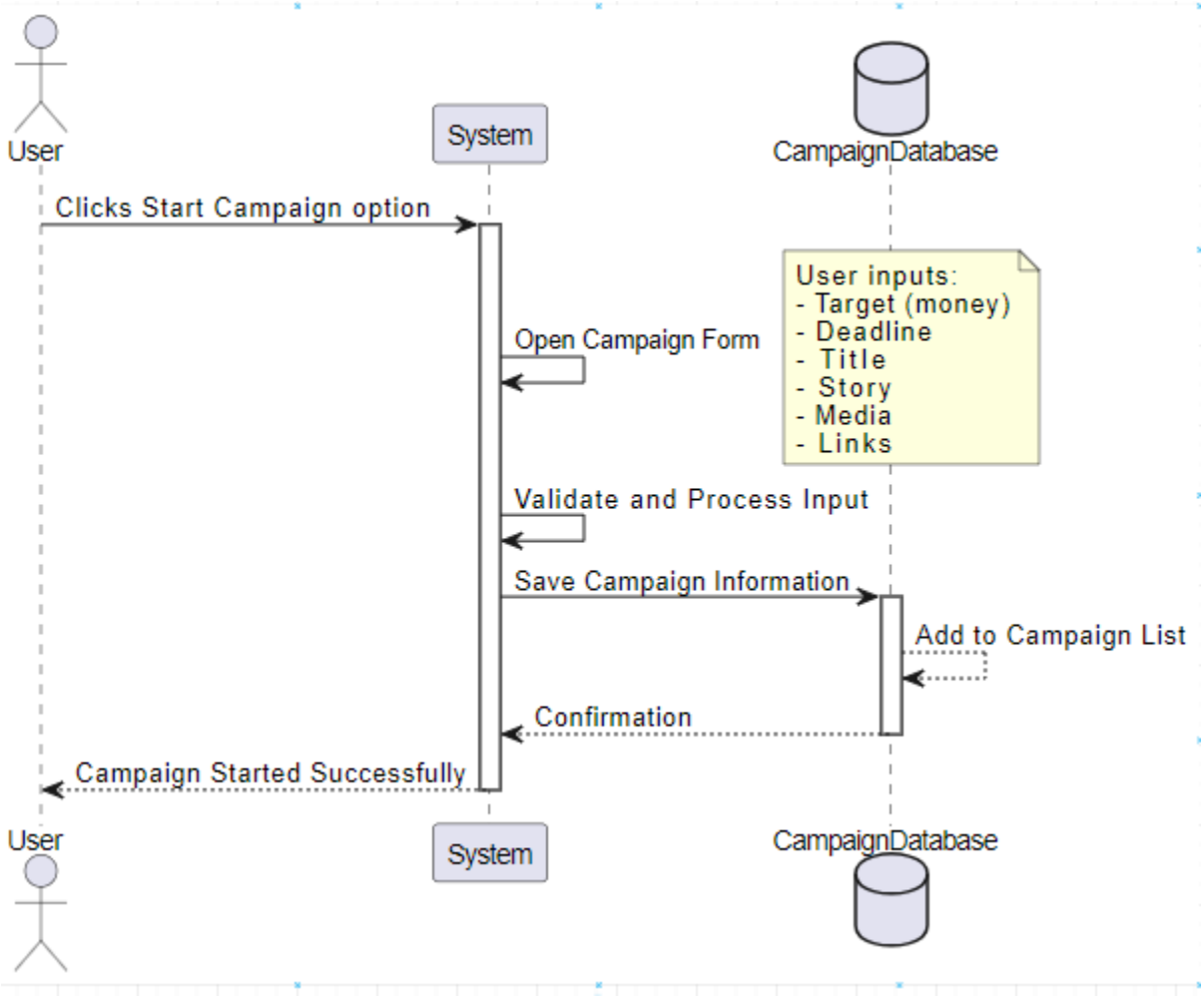

Figure 5. Start Campaign

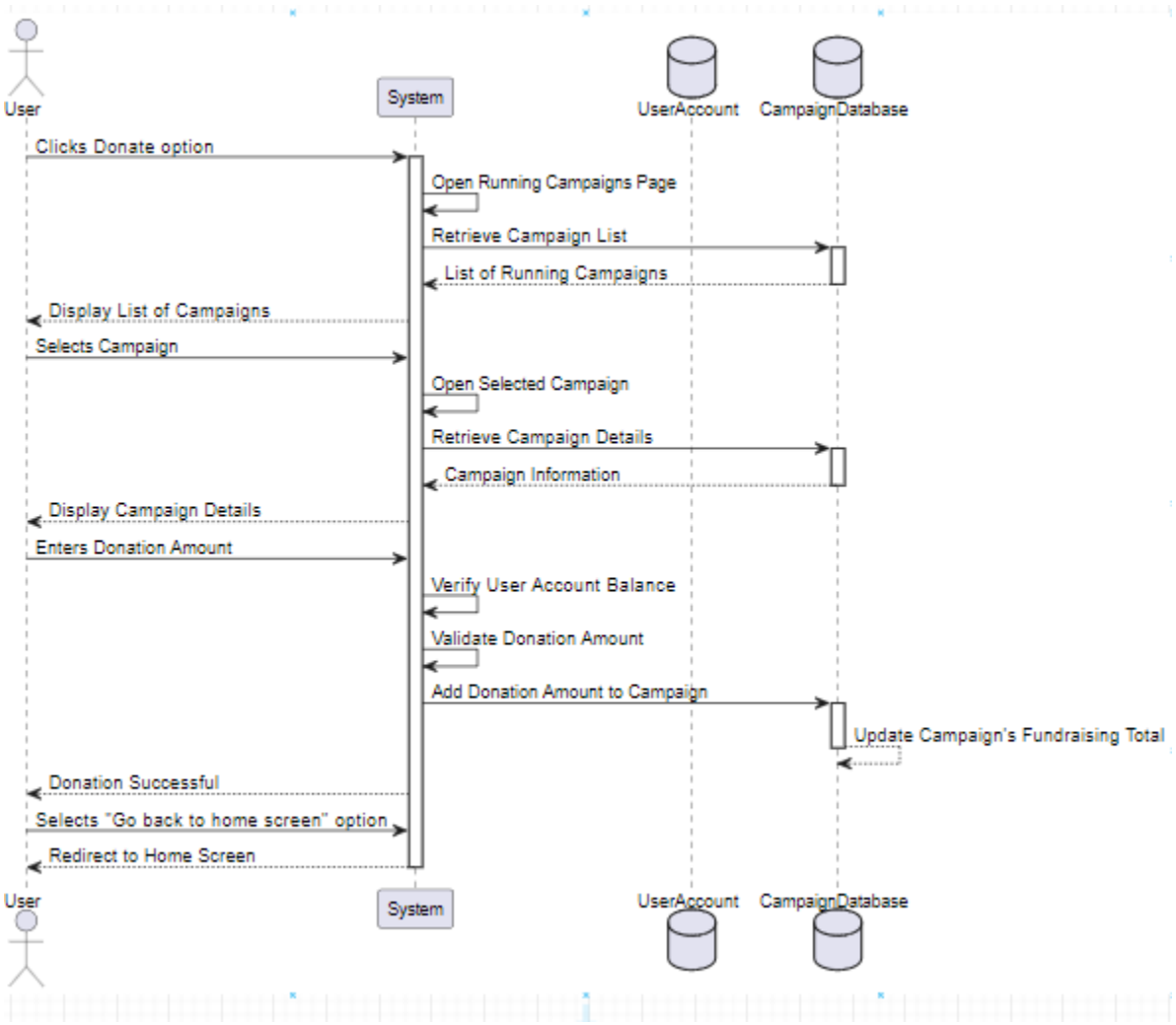

Figure 6. Donate Money

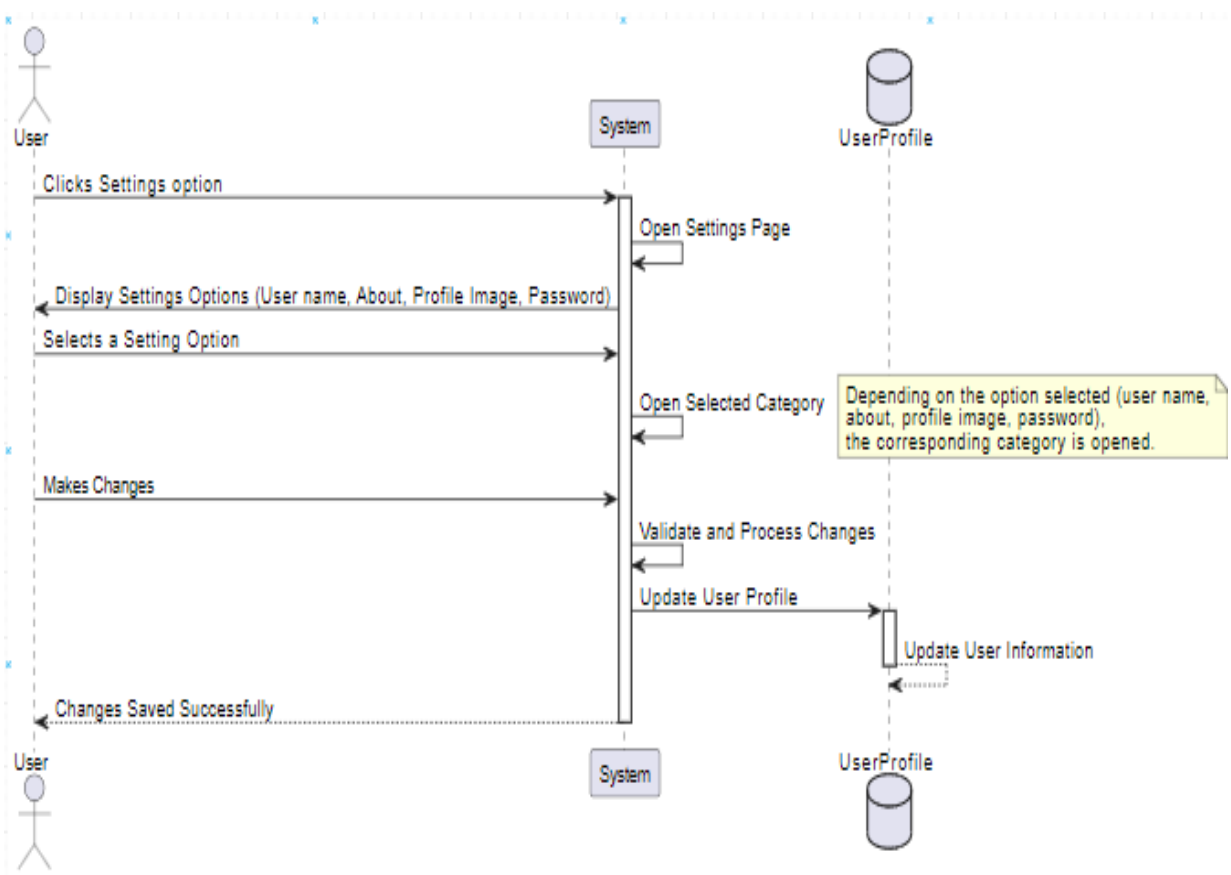

Figure 7. Manage Profile

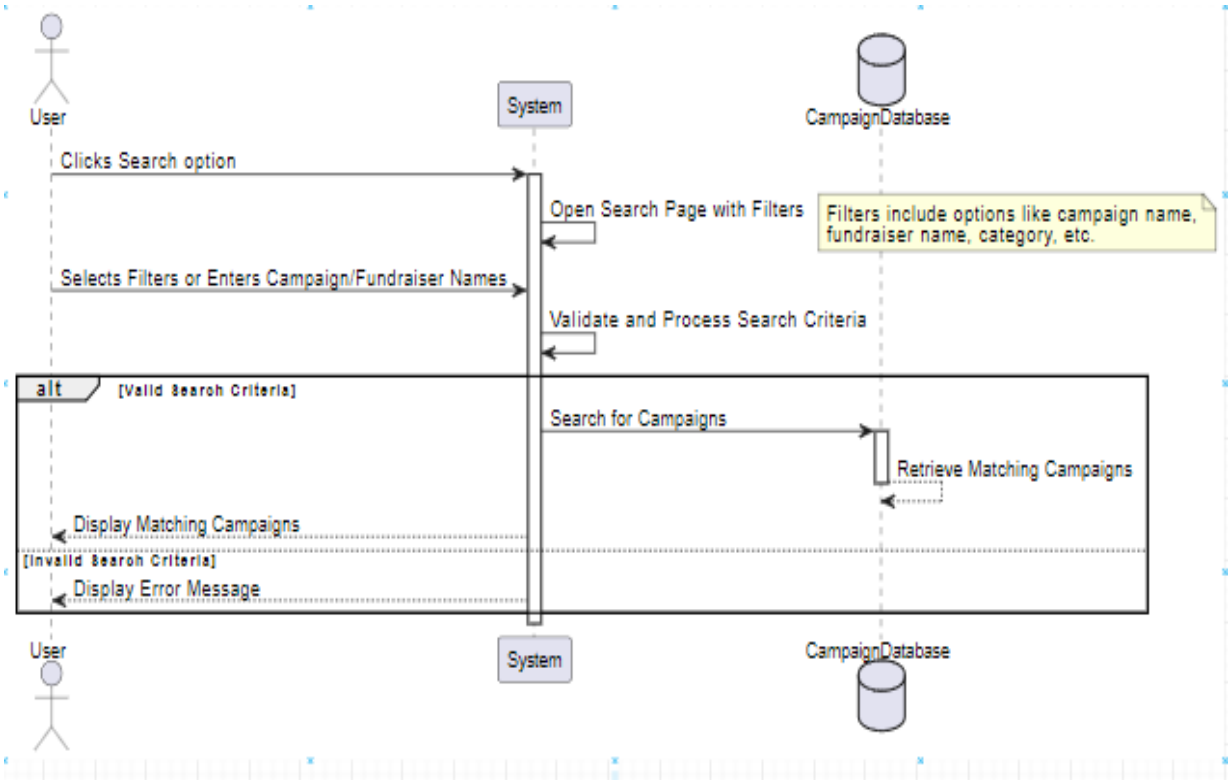

Figure 8. Search Campaign

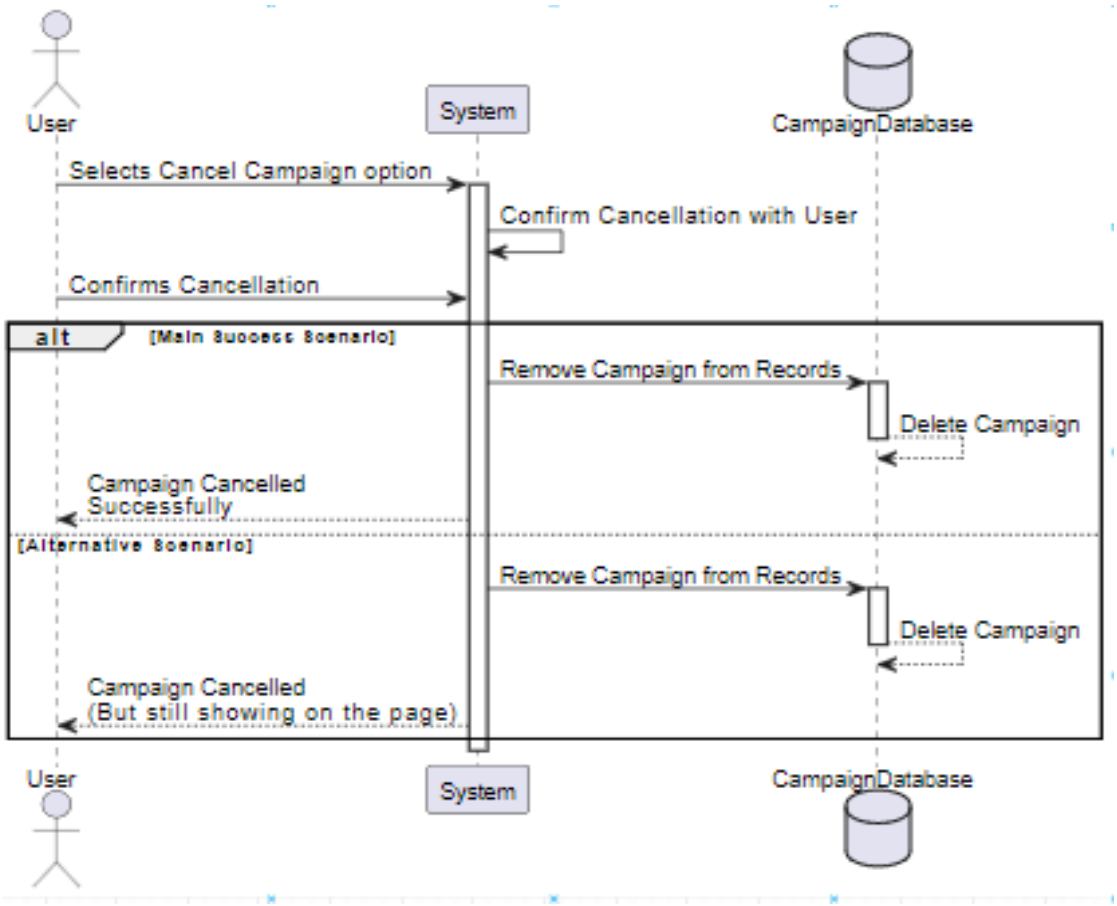

Figure 9. Cancel Campaign

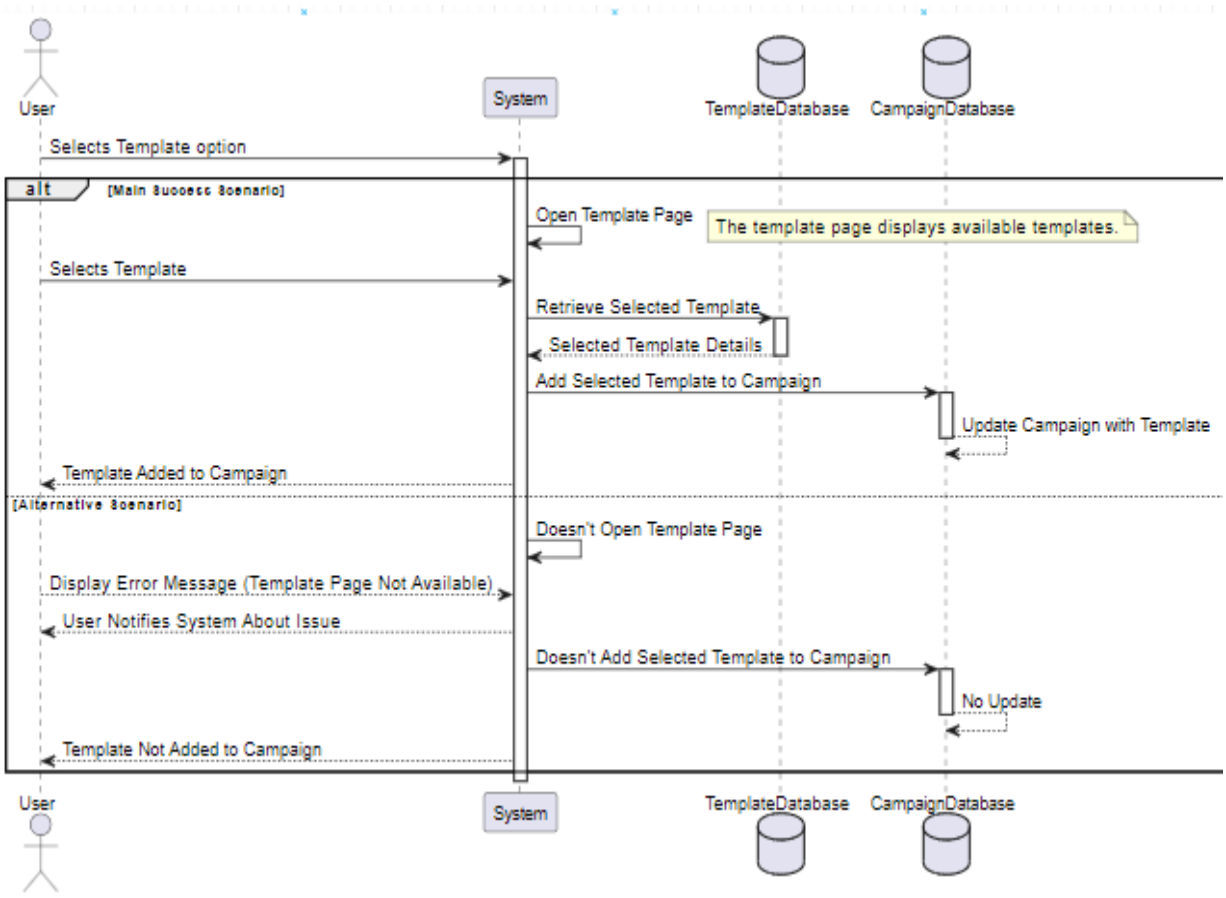

Figure 10. Select Template

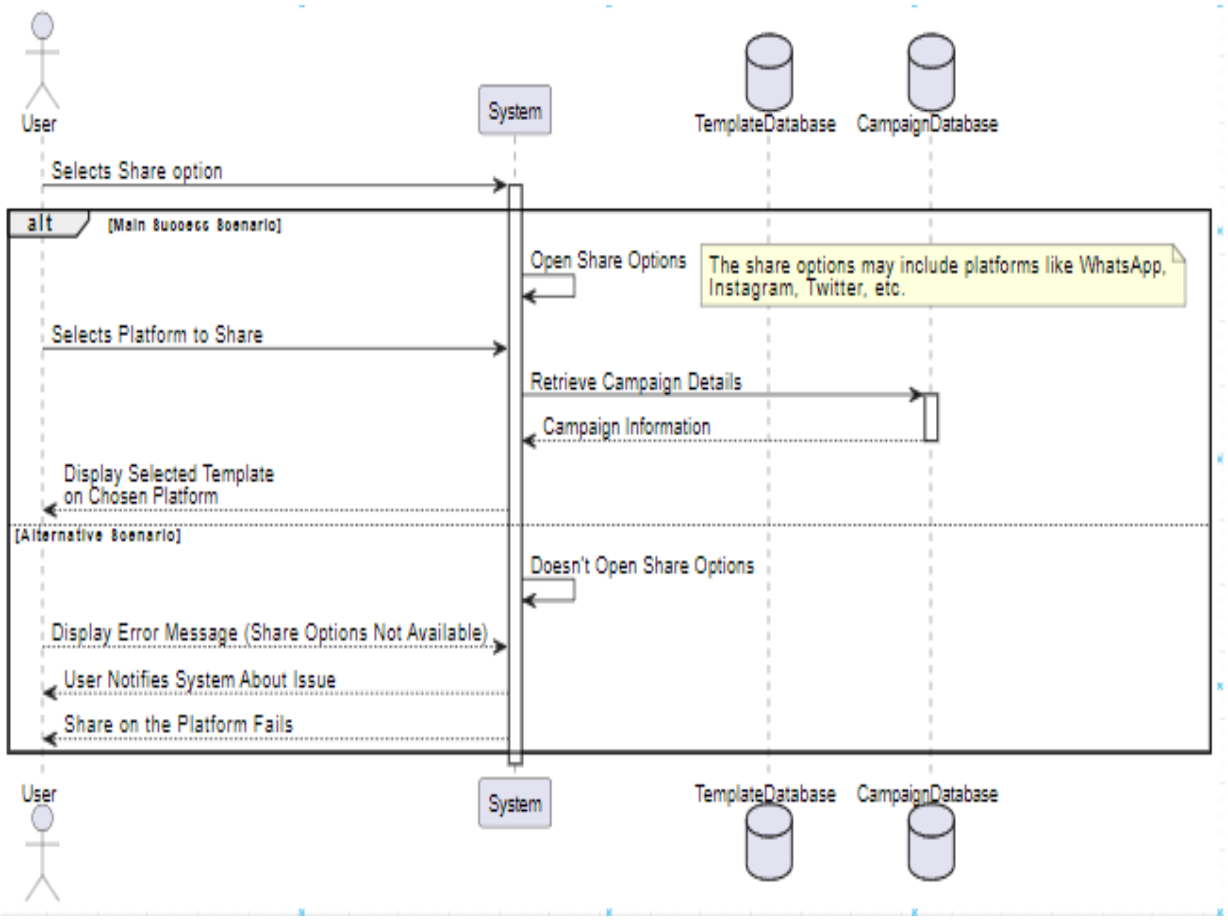

Figure 11. Share on Social Media

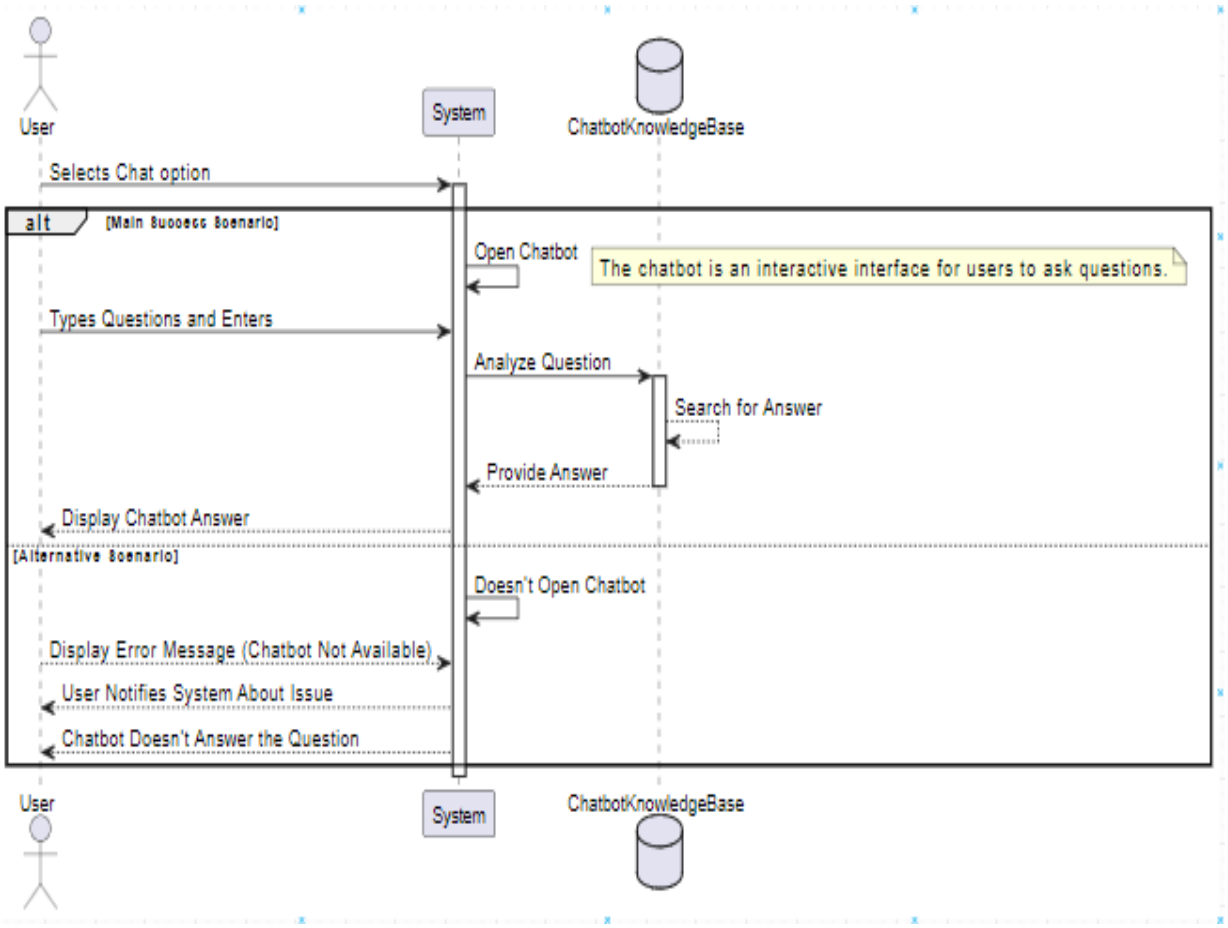

Figure 12. Chatbot

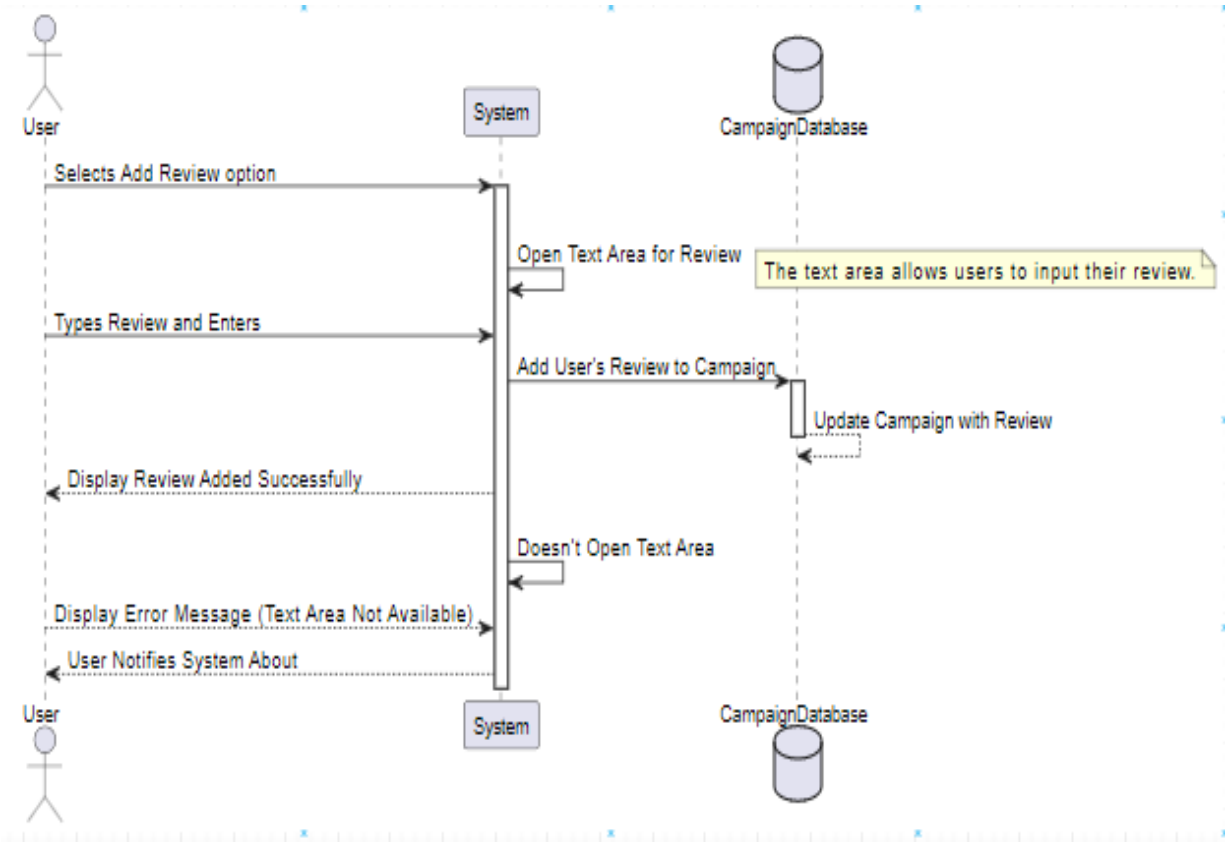

Figure 13. Review and Rating

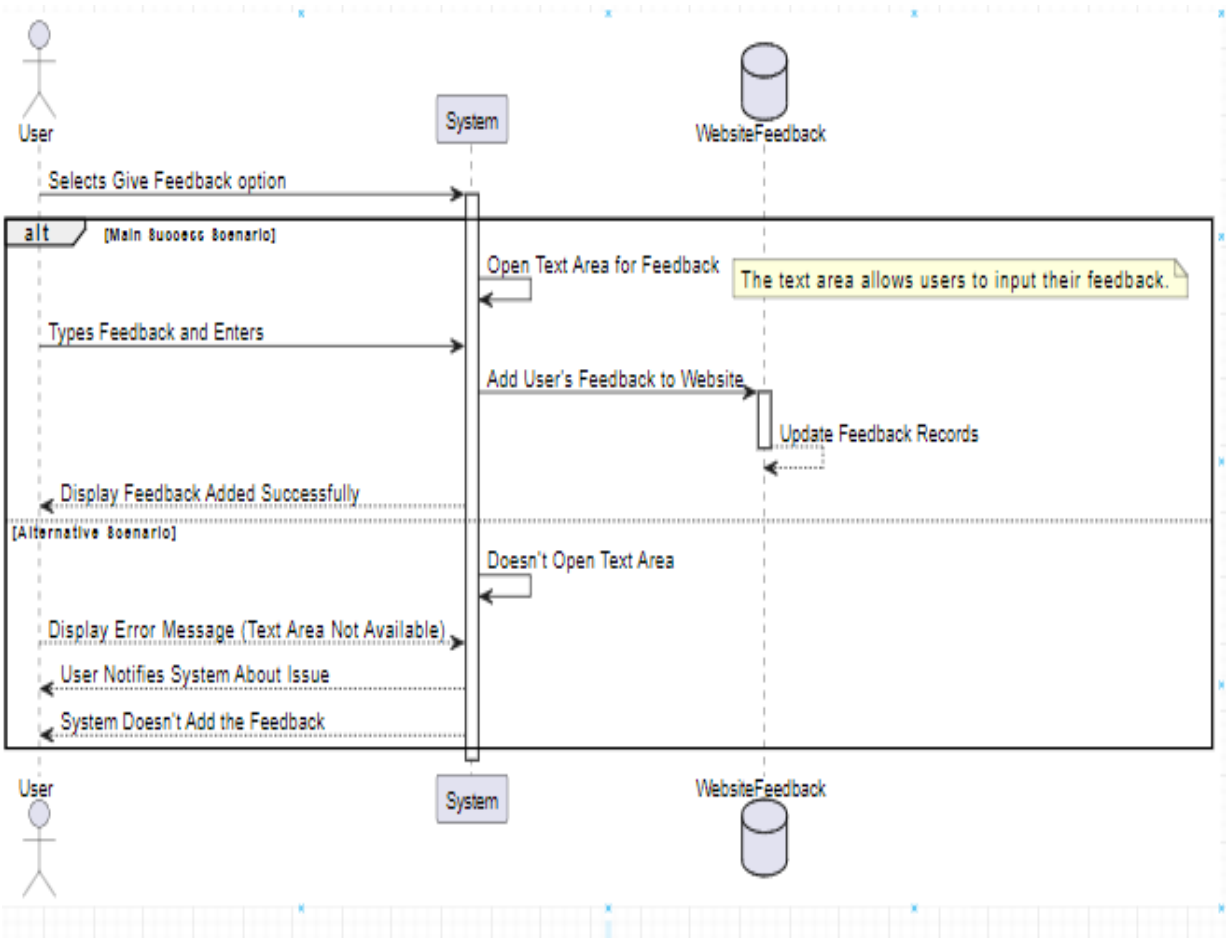

Figure 14. Give Feedback

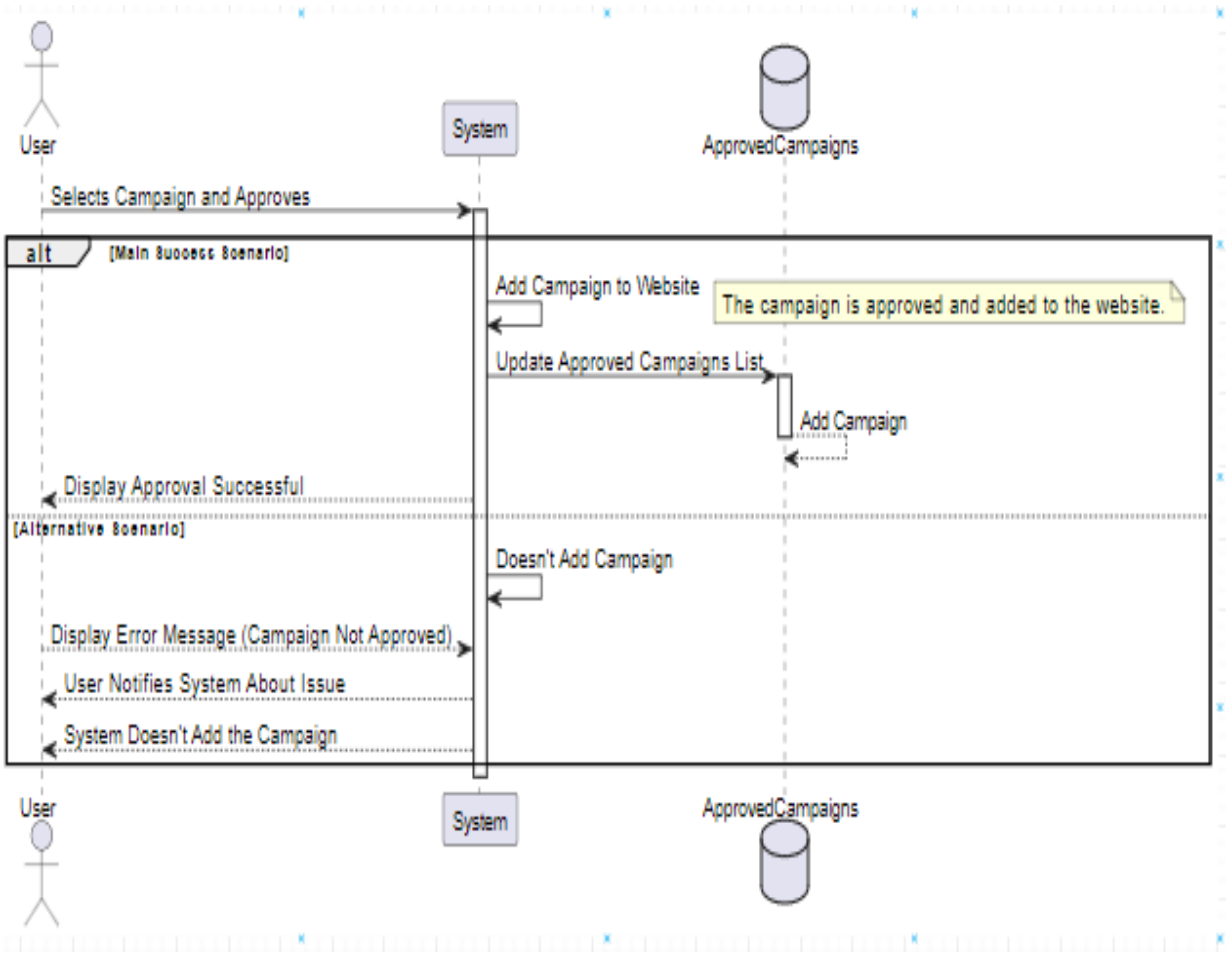

Figure 15. Approve Campaign

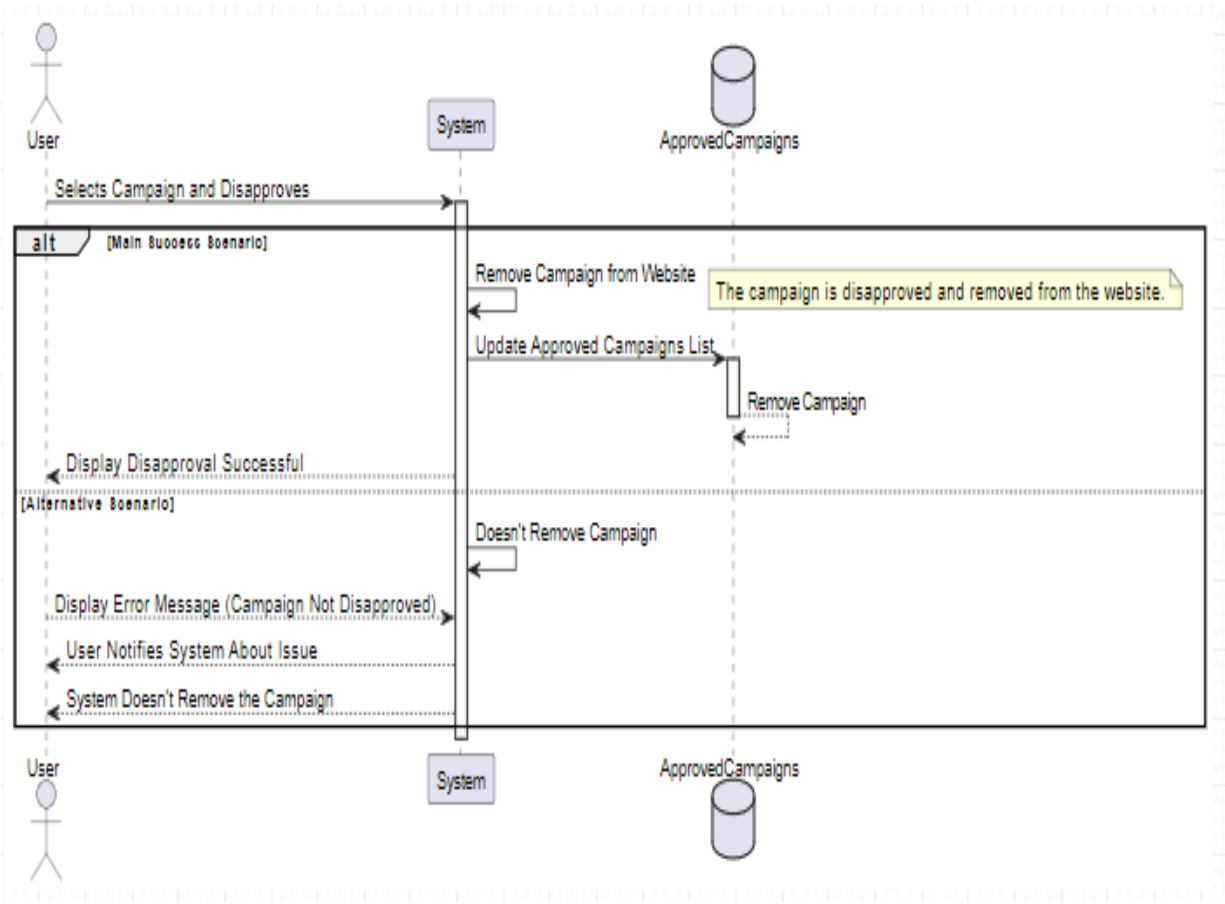

Figure 16. Disapprove Campaign

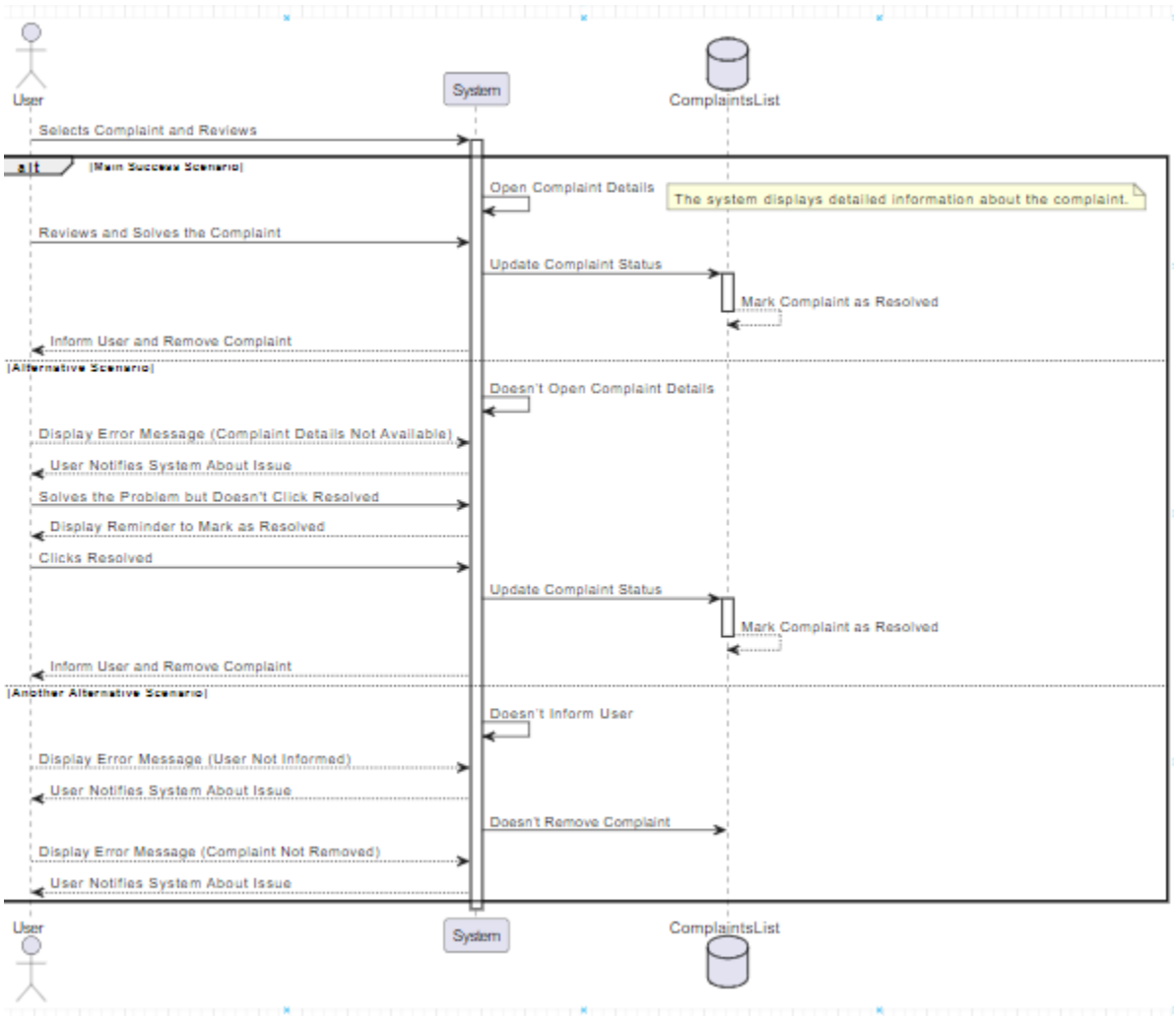

Figure 17. Manage Complaints

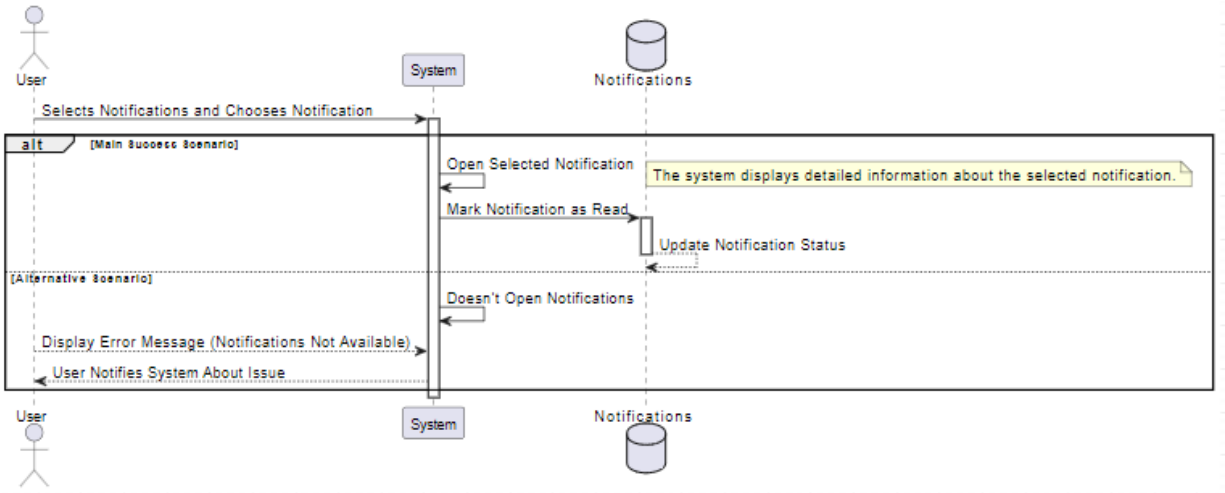

Figure 18. Get Notifications

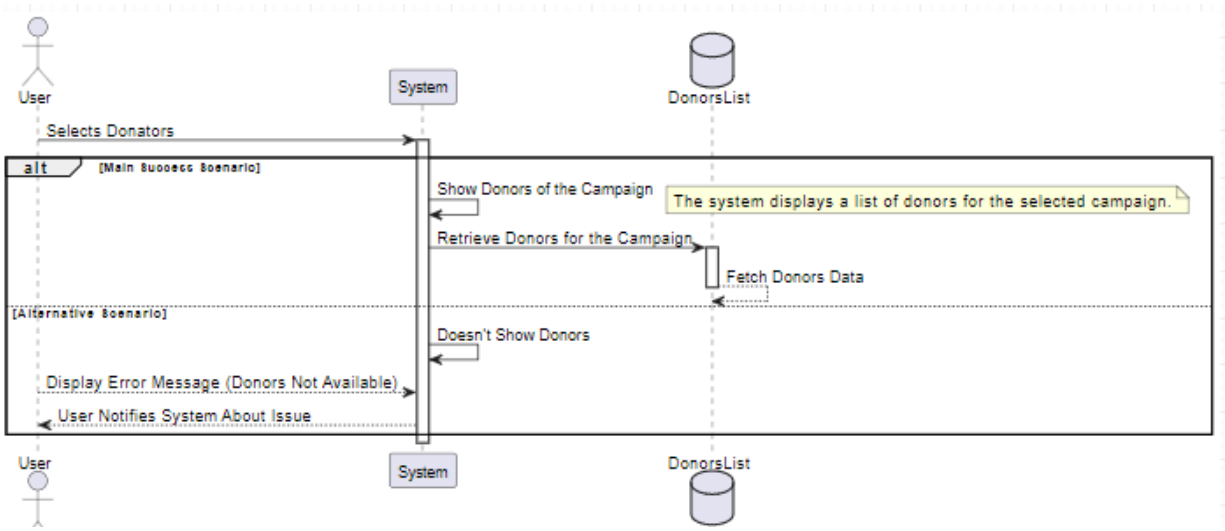

Figure 19. View Donors

4.3 ERD:

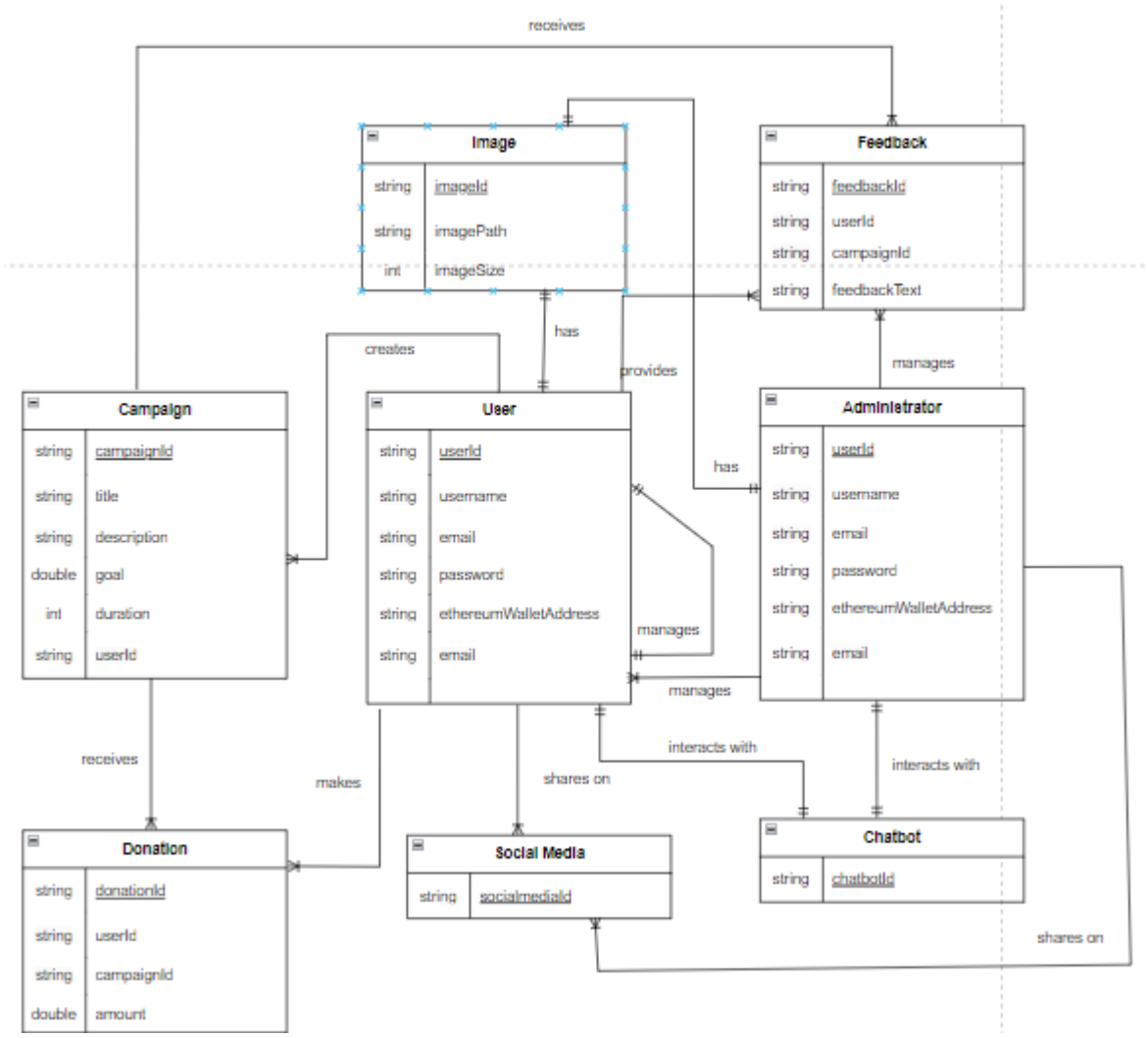

Figure 20. Entity Relationship Diagram

References:

Use Case model:

https://drive.google.com/file/d/16ar436_e64CjxUgWUXGfEX4sSX321H4H/view?usp=sharing

Class Diagram:

https://drive.google.com/file/d/1tLMu5v4et3IvXcMSHGqQpbffvCAsR44Z/view?usp=sharing

Sequence Diagram:

https://drive.google.com/file/d/1h_QB-gMT1wb93uNrmdHSMBjVOfZ_LUia/view?usp=sharing

Entity Relationship Diagram:

https://drive.google.com/file/d/1rKQCYyOyu_sNgPHvodT8xC-haCuP3bE7/view?usp=sharing