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# SCIT

## School of Computing and Information Technology

### CSIT321 - Project

**Project Topic:** Crowdfunding for the Sick

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### Design Specification

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# Project Requirement Documentation

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# Project Requirement Documentation

## Document Control

<b>Title</b>	Crowdfunding for the Sick (CFS)
<b>Documentation Name</b>	Project Requirement Documentation

Owner	Current Version	Last Change On		Approved By
		Date	Time	
Pearlyn Ooi	V2.8	19 <sup>th</sup> February 2021		Whole Team

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# Project Requirement Documentation

## Record of Revision

Revision Date	Description	Section Affected	Changes Made By	Version After Revision
14 <sup>th</sup> October 2020	1 <sup>st</sup> draft of the document	Entire Document	Pearlyn Ooi	V0.1
19 <sup>th</sup> October 2020	2 <sup>nd</sup> draft of the document	Entire Document	Pearlyn Ooi	V0.2
26 <sup>th</sup> October 2020	Update Document	Market Research, Non-Functional Requirements, User Stories	Saw Zhe Jian	V0.3
30 <sup>th</sup> October 2020	Use Case Diagram	Functional Requirements	Pearlyn Ooi	V.04
31 <sup>st</sup> October 2020	Non-Functional Requirement	Usability, Performance, Supportability	Pearlyn Ooi	V.05
1 <sup>st</sup> November 2020	Proposed Solution	Proposed Solution	Ng Ming Yao	V0.6
1 <sup>st</sup> November 2020	Non-Functional Requirement	Reliability, Maintainability, Recoverability, Security	Ng Ming Yao	V.07
4 <sup>th</sup> November 2020	Use Case Description, Sequence Diagram	Use Case Description, Sequence Diagram	Saw Zhe Jian	V0.8
5 <sup>th</sup> November 2020	Update proposed solution, add in use case description	Proposed Solution, Use case Description	Ng Ming Yao	V0.9
9 <sup>th</sup> November 2020	Updated Sequence Diagram and Wireframes	Sequence Diagram, Wireframes	Saw Zhe Jian	V1.0
11 <sup>th</sup> November 2020	Updated Payment Summary, Use Case Diagrams and Market Overview	Payment Summary, Use Case Diagrams, Market Overview	Saw Zhe Jian	V1.1
14 <sup>th</sup> November 2020	Compile Business Plan into document	Business Plan	All Members	V1.2
11 <sup>th</sup> January 2021	1 <sup>st</sup> draft of the document	Entire Document	Pearlyn Ooi	V1.3
13 <sup>th</sup> January 2021	Sequence Diagrams	User & Moderator	Ng Ming Yao	V1.4
14 <sup>th</sup> January 2021	Add in Use Case Descriptions	User	Ng Ming Yao	V1.5
15 <sup>th</sup> January 2021	Add in Sequence Diagrams	User	Hong Khanh	V1.6

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18 <sup>th</sup> January 2021	Add in Wireframes	Admin, User & Moderator	Pearlyn Ooi	V1.7
	Update Use Case Stories	Admin, User & Moderator	Pearlyn Ooi	V1.8
27 <sup>th</sup> January 2021	Update Use Case Descriptions	Admin	Ng Ming Yao	V1.9
28 <sup>th</sup> January 2021	Update Use Case Descriptions	User & Moderator	Ng Ming Yao	V2.0
	Add in Test Cases	Admin		V2.1
5 <sup>th</sup> February 2021	Add in Test Cases	User	Ng Ming Yao	V2.2
	Add in Test Cases	User	Hong Khanh	V2.3
10 <sup>th</sup> February 2021	Add in Test Cases	User	Pearlyn Ooi	V2.4
	Add in Test Cases	Moderator	Pearlyn Ooi	V2.5
	Add in Database Design	Design Specification	Saw Zhe Jian	V2.6
15 <sup>th</sup> February 2021	Add in Test Cases / Logs	Test Cases / Logs	Pearlyn Ooi	V2.7
	Update User Stories, Use Case Description and Sequence Diagrams	User stories, Use Case Description and Sequence Diagrams	Saw Zhe Jian	V2.8
19 <sup>th</sup> February 2021	Final draft of the document	Entire Document	Pearlyn Ooi	V2.9

### Overview

Our business is a non-profit organization in Singapore consisting of a small group of people that wants to help the sick who are fighting a serious disease like cancer, etc. Moreover, they are in need for money for their medical treatment. Treatment for these diseases will cost a fortune for the patients as it requires long term treatment and it might become a heavy burden for them and their family members. Therefore, we wish to develop and host a website with the aim of supporting patients to support their treatment cost starting from Singapore and then expanding to all the needy around the world in near future by fundraising donations through our platform.

## Literature Review

### ***What is Crowdfunding?***

Crowdfunding is a joint effort of friends, family, customers and individual investors to help raise money. This strategy taps into the collective efforts of a broad pool of people and leverages their networks for a greater reach and visibility, primarily online through social media and crowdfunding platforms.

### ***The Benefits of Crowdfunding:***

There are a range of advantages to crowdfunding over conventional approaches, from tapping into a larger donor pool to enjoying more versatile fundraising choices. Here are only a few of the many benefits that are possible:

#### ➤ **Reach**

You have access to thousands of accredited investors who can see, connect with, and share your fundraising campaign by using a crowdfunding platform like Fundable, etc.

#### ➤ **Presentation**

By creating a crowdfunding campaign, you go through the invaluable process of looking at your company from the top level, its past, momentum, deals, addressable market, value proposition, and more, and boiling it down into a polished, easily digestible kit.

#### ➤ **PR & Marketing**

You can share and promote your campaign via social media, email newsletters, and other online marketing strategies from start to close. You can double down by directing traffic to your website and other company services, while you and other media outlets cover the success of your fundraising.

#### ➤ **Validation of Concept**

The introduction of your idea or organization to the masses offers an excellent opportunity to verify and refine your bid. You'll soon see if there's something lacking that will make them more likely to buy in when potential buyers begin to show interest and ask questions.

#### ➤ **Efficiency**

One of the best things about online crowdfunding is its capacity to centralize the fundraising activities and streamline them. You remove the need to target and of them individually by creating a single, detailed profile to which you can funnel all your prospects and potential investors. So you can view it online in a much more convenient way instead of duplicating efforts by printing papers, assembling binders, and manually editing each one when there's an update, leaving you with more time to run your company instead of fundraising.

## ***Types of Crowdfunding:***

There are several crowdfunding forms, just as there are several different types of capital round increases for companies in all phases of growth. What method of crowdfunding uses depends on the type of product or service being provided and is the growth objectives set.

### ➤ **Donation-Based Crowdfunding**

Donation-based crowdfunding is where, without receiving anything in return other than the joy of having contributed to something they believe is worthwhile, people donate money to a cause, charity, or person. It is usually used, for instance, by social causes, non-profit organizations, and art projects to raise funds.

### ➤ **Rewards-Based Crowdfunding**

Rewards-Based Crowdfunding is based on incentives consisting of people who contribute to a project or organization with the intention of earning a non-financial reward in exchange, such as products or services at a later date. A typical example is a project or organization providing, in exchange for investment, a specific service (rewards) or a new product (pre-selling). This form of crowdfunding enables companies to start with orders already secured on the books and cash flow (a big challenge for new businesses) and gathers an audience before a product launch.

### ➤ **Equity-Based Crowdfunding**

Equity-Based Crowdfunding is the mechanism by which individuals invest in an unlisted early-stage company in exchange for that company's shares. A shareholder has partial ownership of a business and, should the business perform well, stands to benefit. The reverse is also valid, because investors will lose some, or all, of their investment if the business fails.

Only the wealthy individuals, venture capitalists, and company angels were historically willing to invest in start-ups. By opening the door to a wider pool of potential investors called "the crowd," Equity Crowdfunding platforms have helped democratise the investment process.



## ***Conclusion***

In conclusion, by incorporating crowdfunding in the current collection of fundraising instruments of organizations, both for individual organizations and for the development sector, there is a lot to be won. Crowdfunding is now part and parcel of the willingness of many organizations and individuals to make the world a better place and enable people to change their lives around the world. Its clear advantage is money-raising. Crowdfunding is credited with addressing obstacles to financing small grassroots ventures which do not have access to major donors and banks.

Not only does crowdfunding provide organizations with resources, it also enhances their human capital as the crowd that supports them puts their institutional frameworks on a broader footing as well. By promoting the initiative that they sponsored to their friends and networks, the supporters inadvertently became an additional marketing team.

Therefore, our platform Crowdfunding for Sick (CFS), will be helping people who are unable to afford the medical bills by creating a campaign from the platform and it will be able to post through the social media platforms. This allows people from all over the globe who see the post to help assist the people by donating to the campaign even if they are not from the same country.

## Business Plan

### ***Business Overview***

Nowadays, the crowdfunding segment is gaining popularity in Singapore and all around the world such as Giving.sg and SimplyGiving. Unlike the traditional crowdfunding that might require the fundraising to go on the street to ask for donation, online crowdfunding enables people in need to raise funds through the internet. Alone in Singapore, the transaction value in the crowdfunding segment is projected to reach US\$3.1m in 2020. Furthermore, the transaction value is expected to show an annual growth rate (CAGR 2020-2024) of 2.8% resulting in a projected total amount of US\$3.5m by 2024. The average funding per campaign in the crowdfunding segment amounts to US\$4,264 in 2020. On the other hand, from a global comparison perspective it is shown that the highest transaction value is reached in the United States (US\$438m in 2020). This shows the potential in the segment and we could do our part to reach out more for the needy.

### ***Roles and Responsibilities***

Name	Roles	Responsibilities
Saw Zhe Jian	Team Leader Backend Developer	Oversees the project Backend implementation
Lek Jing Kai	Frontend Developer UX/UI Lead	Frontend implementation User Experience and User Interface lead
Ng Ming Yao	Secretary Technical Writer	Noting down key ideas from all the meetings and discussion for future references. Ensuring the core functions of the platform are well planned.
Luong Hong Khanh	Business Manager Technical Writer	Develop an organisation strategy Ensures the organisation is on track to meet the main goal. Determine scope of organization
Pearlyn Ooi Pei Ling	Documentation Manager Technical Writer	Writing, editing, and maintaining the technical documentations

## ***Executive Summary***

In Singapore, there are many people who suffer from chronic diseases like cancer, Alzheimer's disease, tuberculosis, etc. Just cancer alone, there are about 39 people being diagnosed with cancer every day, 15 people die of cancer every day, and 1 in 4 people may develop cancer in their lifetime. To cure chronic diseases, it takes time and money to fight against it. From a study done by AON, the gross medical inflation rate in Singapore for 2017 and 2018 is at 10%, which exceeds the global medical inflation rate of 8.4%. And the medical inflation rate for 2019 was expected to rise to 10.1%.

That is why we are inspired to develop and host a website to help the sick and needy to raise funds, hoping to let everyone have the chance to fight against their disease with the communities' support and wishes. Through our website, we wish to provide a platform for the sick to create and host campaigns to fundraise for their medical treatment. As we are a non-profit organisation, the fund raised will mostly be donated to the sick and only a little portion of it will go to our organisation to maintain the operation of our website and organisation.

## **Product and Services**

Our products and services are an online platform that enables the needy to host fundraising campaigns and the others who are willing to donate funds to help the needy. As we are non-profit organizations, we hope to provide all the client free services on our platform.

## **Our Vision Statement**

Our vision at Crowdfunding for Sick (CFS) is to build a sustainable charity crowdfunding platform in Singapore and hopefully to the whole world in near future as we wish to reach out to as many people as possible.

## **Our Mission Statement**

Our mission at Crowdfunding for Sick (CFS) is to build a suitable and sustainable website that will assist people that are sick and unable to afford treatment themselves. We hope to make life and survival easier for the people of Singapore as a whole.

CFS wishes to be the foremost crowdfunding organisation through excellent customer care service and accompany those who share our goals.

We intend to achieve these goals through the promotion of our services through different media, such as the use of social media and through word of mouth dissemination from satisfied clients who have benefitted from our services.

Furthermore, the main purpose of our website is helping the sick and needy without conditions. Therefore, we have a plan that shares our platform's campaigns on social media such as Facebook, Twitter, Instagram, etc.

## ***Market Analysis / Trends***

The crowdfunding market is expected to witness a growth at a CAGR of over 16% during the forecast period (2020-2025). Crowdfunding entails soliciting many small amounts of money from an undefined group of people known as the crowd. Crowdfunding platforms could be intermediaries between donors and beneficiaries. This intermediary could exploit a plethora of marketing techniques to influence the behaviour of the potential donor. Therefore, it is important to look for the influencing factors that are being used on crowdfunding platforms such as social media platforms for raising funds.

This sector has witnessed tremendous growth in recent years and this growth is predicted not to wane in the coming years, especially as enlightenment grows among potential entrepreneurs about the benefits of using this service for generation of funding.

As a result of the growth, it has witnessed the emergence of several websites providing similar services to both investors and entrepreneurs. It is expected that in no distant time, this option will overtake other well-known options used in funding small businesses.

## **Target Market**

Our organisation is targeting two groups, one of them is people wish to host a campaign on our website to raise funds for medical treatment. This can be the patient himself, their family members, or even other charity groups who wish to help the sick. The other group of people who our organisation is targeting are able and willing to donate money.

# Project Requirement Documentation

## SWOT Analysis

INTERNAL FACTORS	
STRENGTHS (+)	WEAKNESSES (-)
<ul style="list-style-type: none"><li>• Non-profit organization =&gt; Everything is free.</li><li>• Benefits for communities both locally and internationally.</li><li>• Doing some innovative campaigns.</li><li>• Heavily link to social media such as Facebook, Instagram which helps with sharing our campaign.</li></ul>	<ul style="list-style-type: none"><li>• Lack of experiences.</li><li>• Limited Budget.</li><li>• Do not have much achievements yet.</li><li>• No real vetting process so there are several issues when controlling each campaign.</li><li>• No penalty for creating campaign.</li></ul>
EXTERNAL FACTORS	
OPPORTUNITIES (+)	THREATS (-)
<ul style="list-style-type: none"><li>• Charities.</li><li>• Assurance for website activities flexible.</li><li>• Progressive updating on list pages.</li><li>• Many categories of different kind of illness that requires long term treatment.</li></ul>	<ul style="list-style-type: none"><li>• Several users create clone account for entertainment purpose.</li><li>• Many risks from external.</li><li>• Compete with other websites.</li></ul>

Out there in the community, there are a lot of less fortunate personnel that require our help in fighting against their illness. As a result, creating a platform for them to raise funds for their treatment is an opportunity for us to go into the market. As we are a charity organization, we could be beneficial for the local communities and international communities. By enabling users to link their account to their social media also allow them to market and promote the campaign easily. As we focus on allowing users to create campaigns according to their needs, we see the opportunity as we assure flexibility in our website activities and allowing the campaign organisers to update their progression at their campaign page could boost the doner's trust in supporting the campaigns. On the other hand, as we lack experience in this field and with limited budget, we should try our best to handle all foresee or unforeseen circumstances we will face throughout the project. Furthermore, we do not have a real vetting process which might cause several issues when controlling our campaigns as there are no penalties for creating campaigns that are unnecessary. Lastly, we would need to try to mitigate our threats such as account controlling and competing against other websites.

## Market Research

We at Crowdfund For Sick (CFS) understand that the industry is very competitive and that the sites that are in the industry all connect people of services, but it is important to note that Crowdfunding For Sick (CFS) only focuses on helping people who are sick and unable to afford treatment fees themselves. Through the analysis of our competitors in the current market, we have come up with a platform that is best suited for this. Our platform will include functions and features of most existing crowdfunding platforms to provide users with the best possible experience.

# Project Requirement Documentation

## 1) Fundly – <https://www.fundly.com/>



**Overview:** Fundly is a crowdfunding site for online fundraising. It allows non-profits, charities, politics, clubs, schools, teams, churches, and other causes to raise money online from friends, family, colleagues, donors, and other supporters via email, Facebook, Twitter, LinkedIn, Google, and social media networks.

### Pros:

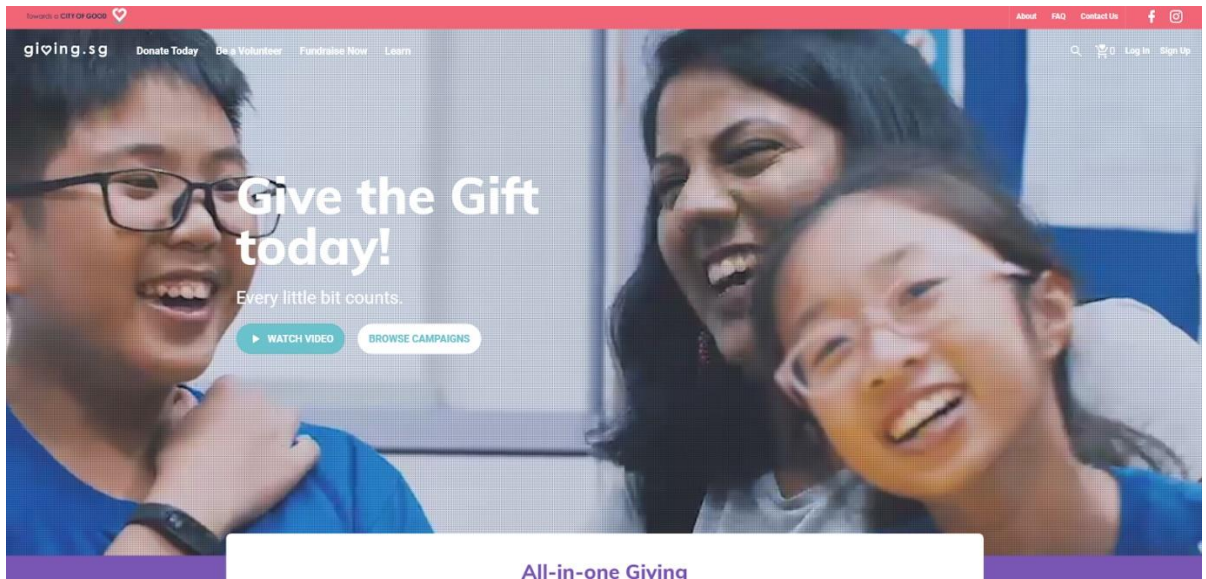
- Able to sign up with Facebook and Twitter
- Able to filter by categories
- Able to share Fundraises on different social media platforms
- Able to leave comments on the Fundraises
- Organisers able to provide update regarding the Fundraise
- Acts as a fundraising website but at the same time allows organisers to create their own platform for fundraising

### Cons:

- Donations must be in USD
- No sorting functions
- Not able to filter by location

# Project Requirement Documentation

## 2) Giving SG – <https://www.giving.sg>



**Overview:** Giving.sg is Singapore's very own one-stop platform for kickstarting your Giving Journey, whether you are looking to help local charities by giving our TIME, by general volunteering; TALENT; by skills volunteering; or TREASURE, by donating.

### Pros:

- Able to filter by categories and causes as well as tax deductible
- Able to sign up with Facebook
- Have applications on the Apple Store and Google Play Store for handheld devices
- Able to fundraise for local or foreign causes
- Able to share campaigns to social media or even email
- Extremely clean and detailed user interface showing plenty of information

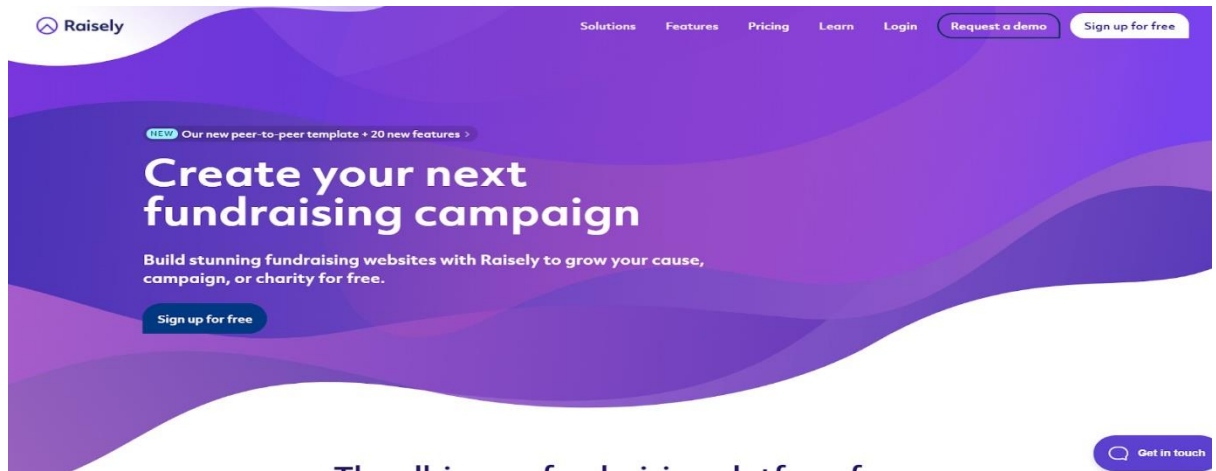
### Cons:

- Not able to sort the list of crowdfunds
- Donations are like purchasing of items, it must be added to the cart before checking out
- Donations are strictly in SGD



# Project Requirement Documentation

## 3) Raisely – <https://www.raisely.com/>



**Overview:** A technology company that builds fundraising infrastructure for charities. Causes of any size, from start-ups to established organisations, use their platform to build and run effective, powerful fundraising campaigns of all shapes and sizes.

### Pros:

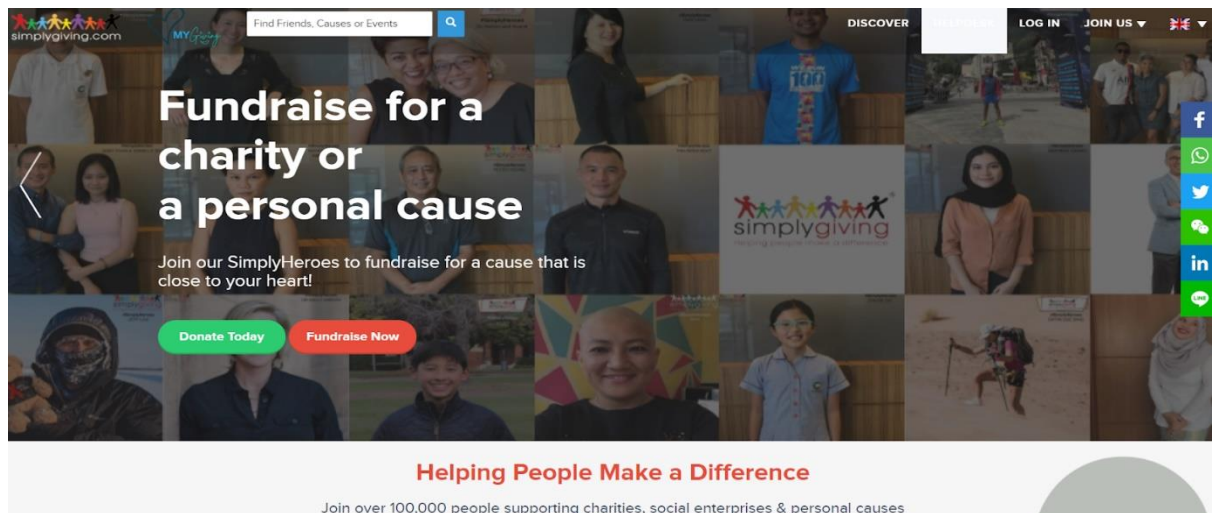
- Live Chat function to communicate real time with the staffs
- Able to send Emails to submit enquiries
- Unique system of allowing organisers to create their own fundraising websites
- Automatic receipts allow instant tax receipts to be sent to donors
- Able to send emails to donors
- Different type of fundraising themes for you to pick

### Cons:

- Monthly charges for different features such as messaging and customer relation management
- Limited CRM records based on the price you pay
- Using this service means your platform is not self-reliant and it can become a risk since you are relying on Raisely to do everything



## 4) Simplygiving – <https://www.simplygiving.com/>



**Overview:** SimplyGiving connects people with causes to help them make a bigger difference! Inspired by the power of the Internet to do good, they provide an incredible way for anyone to fundraise for their favourite charity or personal need.

### Pros:

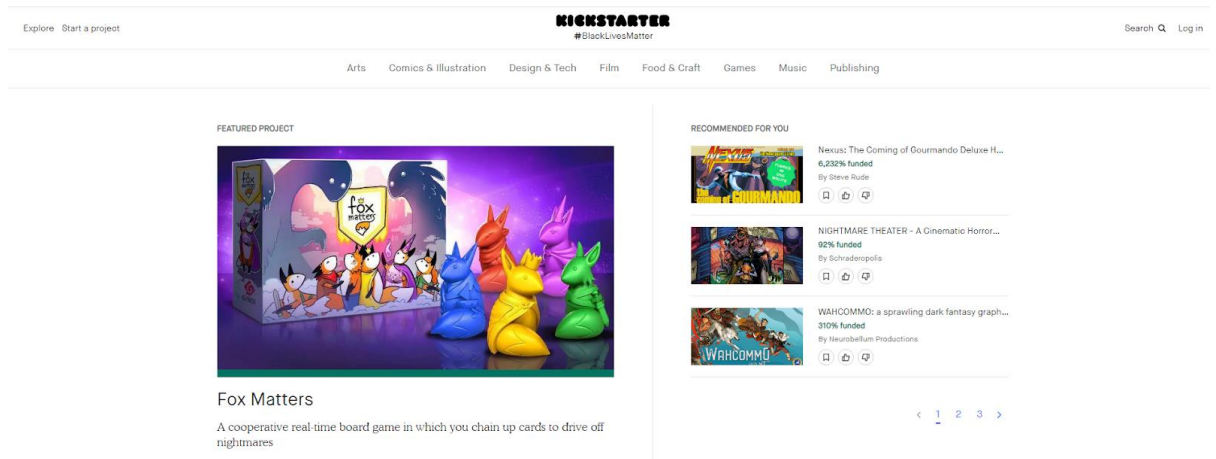
- Supports multiple language
- Able to filter by categories, country
- Feature to show Fundraises near user's location
- Able to sign up with Google+
- Payment methods of PayPal and Credit Card
- Able to donate in different currencies
- Helpdesk to submit tickets for enquiries

### Cons:

- Not able to sort the list of fundraises (E.g. Most donated at the top)
- Password is auto generated on register, user not able to enter own password
- Not able to deactivate or delete account
- No view all function, must constantly click on load more to display 6 more fundraising events

# Project Requirement Documentation

## 5) Kickstarter – <https://www.kickstarter.com/>



**Overview:** Kickstarter is a funding platform for creative projects. Every project creator sets their project's funding goals and deadline. If people like the project, they can pledge money to make it happen. If the project succeeds in reaching its funding goals, all backers' credit cards are charged when time expires.

### Pros:

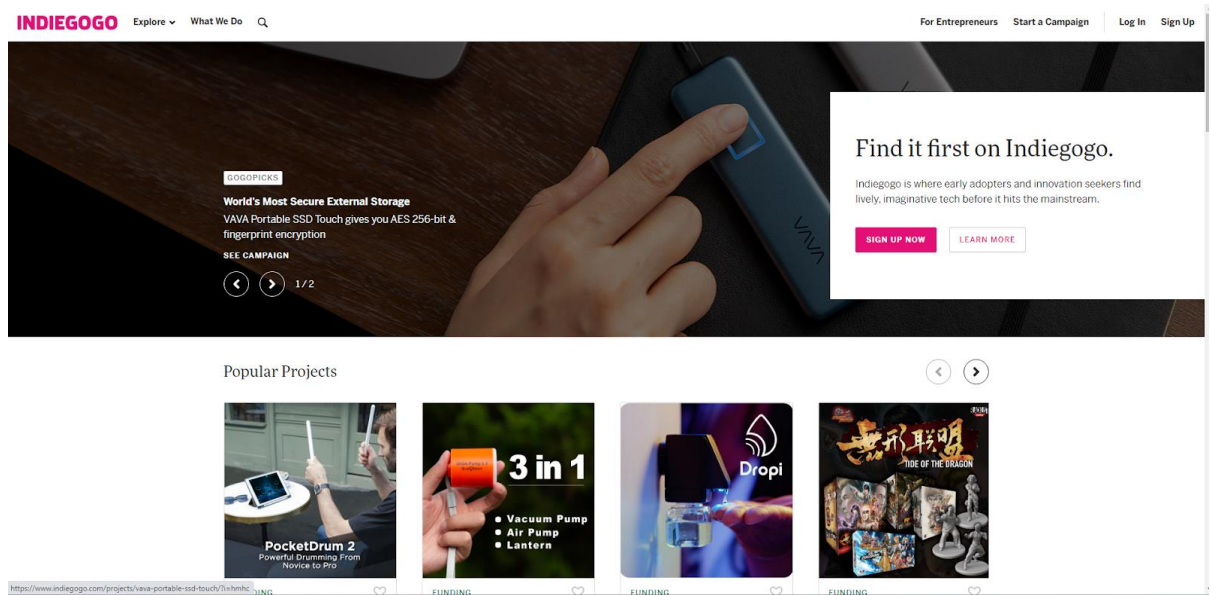
- Low risk, you do not have to fulfil rewards unless your goal is reached
- Remind me function to know if the product is launched
- Able to share to different social media platforms
- Organisers able to provide updates to supporters
- Supporters able to comment on the project
- Able to sign up with Apple or Facebook
- Able to filter different categories and even % of money raised
- Able to sort the list according to several different options

### Cons:

- Interface can be a little confusing
- All or Nothing, if the goal is not reached by the end date, no one will be charged anything
- Users can cancel their pledge at any time of the day

# Project Requirement Documentation

## 6) Indiegogo – <https://www.indiegogo.com/>



**Overview:** Indiegogo is an online crowdfunding platform that brings Users together and allows Users to seek to raise funds for their own Campaigns and to contribute to the Campaigns of others. Campaign Owners can offer Perks to Contributors in thanks for the Contributors' donation of funds.

### Pros:

- Able to sign up with Facebook
- Able to filter by categories and project timing
- Unlike Kickstarter, IndieGoGo provides the option to receive your funds instead of going with the All or Nothing system
- Campaign can stay up to 120 days
- Automatic promotion to selected social platforms

### Cons:

- Perks and rewards **MUST** always be fulfilled despite goal not being reached; this can put organisers in a financial difficulty if the cost of the rewards is over the raised funds
- Higher than usual processing fees of up to 9%

# Project Requirement Documentation

## Proposed Solution

During our market research, we have identified several common shortcomings of the fundraising platform on the market.

1. Not able to sort the list of fundraises (E.g. Most donated at the top).
2. All or Nothing, if the goal is not reached by the end date, no one will be charged anything.
3. No view all function, must constantly click on load more to display 6 more fundraising events.
4. Not providing the campaign organiser's contact details.

Our proposed solution will be as follows:

	Crowdfunding Platforms						
	Fundly	Giving.sg	Raisely	Simplygiving	Kickstarter	Indiegogo	CFS
Sign-Up Options (Individual / Organisation)	✓	✓	✓	✓			✓
Create a Campaign / Host an Event	✓	✓					✓
Host Campaign at Own Website			✓				
Show list of Campaigns <ul style="list-style-type: none"><li>• Location</li><li>• Categories</li><li>• Amount of Donation Collected</li><li>• Date Duration</li></ul>	✓	✓	✓	✓		✓	✓
Search Option	✓	✓		✓	✓	✓	✓
Sort by Categories	✓	✓			✓	✓	✓
Sort by Most Donated					✓		✓
Show lists of Donors and the Amount Donated	✓	✓	✓				✓
Share Campaign on Social Media	✓	✓			✓	✓	✓
Different Campaign Options <ul style="list-style-type: none"><li>• Donate</li><li>• Volunteer</li><li>• Fundraise</li></ul>		✓		✓			✓
Provide Contact of Organisers		✓					✓
Website Helpdesk	✓		✓	✓			✓

Not being able to sort the list of fundraising would make it hard for users to look for the campaign type that they want to support. Moreover, having only the most donated campaign at the top would make those least supporters' campaigns hard to raise funds as they are not in view for the users as they surf the fundraising platform. Therefore, our proposed solution would be having sorting options such as: sort by most or least donated, most recent, etc provided to the users in our fundraising platform.

Having an all or nothing system would make it very hard for campaign organisers that are in need of money. Furthermore, as we are fundraising for the sick, even getting part of the money from the campaign would mean a lot to them so support their treatments. Thus, we proposed that instead of all or nothing, we will allow campaign organisers to receive the amount of money donated by the deadline regardless if the goal is reached.

It is very troublesome for users to have to constantly click the "Load More" button as they surf through the list of campaigns. We proposed that the list would be automatically loaded out as the user surfed through the list of campaigns.

Some supporters might have the wish to contact the campaign organiser either to provide support in other means or for other purposes. We proposed that we would provide an option for the campaign organiser to fill in their contacts such as emails or phone numbers and it should be optional to them.

## Market Strategy

### ***Market and Sales Strategy***

There are 4 different market strategies that our organisation is using. They are Create Blog Posts, Going Global, Making Content Clear and Engaging, Creating Fun Videos and Sending out Newsletters & Email Blasts.

#### **1. Create Blog Posts**

Blog posts are a great way to create engaging and interesting content on a consistent basis. Our organisation through the story from the blog post can share how it is from the start till now for the people who require help. This can help them in getting more help from many people around the country, as the industry is now becoming more technology.

#### **2. Go Global**

Our organisation is not limited to people donating only from Singapore but also worldwide to assist the people who are in need in Singapore. Our marketing campaign will be able to be translated into multiple languages which will then boost the campaign as it is able to cross borders to attract donors around the world. Not only this, our organisation is also able to have donors to donate in their own currency, which will make it easier to compel people from over the globe to donate to the campaign.

#### **3. Create Fun Videos**

Our organisation will also be creating videos as short as 60 seconds and not more than 3 minutes long. In these videos, we will be clearly outlining our websites in a simple, honest, clear, concise, and engaging way so that our readers will be able to understand and to get them hooked on it. The purpose of creating these videos is to allow readers to understand what our website is about.

#### **4. Send Out Newsletters and Email Blasts**

Our organisation will also be sending newsletters and email blasts to our members on a regular basis. This newsletter can update the users on the latest news for the campaign that they are subscribed to. for example, the funding goals, bios of team members, etc. the purpose of these newsletters and email blasts to make our readers feel more value, so that they will be willing to engage over the long period of time.

### ***Pricing Strategy***

We plan to charge a fee of 5 % of the total amount of gross capital obtained from our website. We believe that funds raised from the website are transferred to the checked bank account appointed by the entrepreneur / business via an automated clearing house transfer.

## ***Publicity and Advert Strategy***

There are four types of publicity and advert strategy our organisation will be using that will be focusing on targeting the readers through interest. They are Google Ads, Bing Ads, Facebook Ads and YouTube Ads.

### **1. Google Ads**

The reasons our organisation chooses google ads is because it is able to allow us to create both display and text ads, furthermore, the longer the organisation uses google ads, the quality of the score will be higher which will then lead to a higher Return of Investment (ROI).

### **2. Bing Ads**

Our organisation chooses Bing ads as one of the publicities and advert strategy as Bing ads also works the same as google ads as they use the same search engines. However, Bing ads will receive less traffic than with google ad Bing ads will sometimes produce better returns.

### **3. Facebook Ads**

One of the main reasons our organisation chooses Facebook ads as our publicity and advert strategy is that it is the most widely used social media platform in the globe. In addition, Facebook also has the advantage of the most targeted advertising available, as it can allow the organisation to specify our audience based on demographics, interest and behaviour based on the user interactions on the platform.

### **4. YouTube Ads**

One of the reasons why our organisation chooses to use YouTube ads is because based on the YouTube statistics, almost 5 billion people watch videos on YouTube every day. In addition, YouTube allows the user great flexibility to take control over who sees our ads, by using demographic targeting which allows users to layer affinity audiences, custom affinity audiences and in-market audiences.

## ***Payment Strategy***

Crowdfunding for Sick (CFS) being an online fundraising platform that revolves around constant monetary transactions, it is important to consider different payment options that are the most efficient to further improve user's experience.

### **1. Convenience**

When a user decides to donate, it is important that the process is as convenient as possible since the user might be using the platform on a mobile device. Thus, the users should be able to save their payment methods onto the site securely and be able to donate again next time swiftly without having to enter their payment information again.

### **2. Trustworthiness**

When deciding what payment option to use, most users would go for payment options that are most familiar to them or the ones that are most frequently used. This is because the payment options are safe and their payment information is protected, giving them an ease of mind. By having payment options that are popular, the chances of users donating would be higher.

### **3. Security**

When a user decides to donate, the security of their payment information must be protected to ensure that nothing is leaked or compromised. Ensuring that their payment information is protected, and that they have nothing to worry about will allow them to donate at ease and not have to worry about anything being compromised.

### **4. Target Audiences**

By considering the age range of our target audiences, we can come up with different payment methods that best suits the platform. Since we are a crowdfunding/fundraising platform for people that are sick, it is possible that the users will be of a wide range of age. For younger audiences, they are more likely to use their smartphones, which in this case, faster payment options like Apple Pay and Google Pay will be optimal. For older audiences, the best form of payment would optimally be via Card Payments.

### **5. Additional Fees**

When using certain payment options, there are some options that charge users' additional fee for each transaction. This is important to note as when a user is contemplating donating, this additional fee could be a key deciding factor on whether the user donates or not.

### **6. Speed of Transaction**

If the process of the start of donation to the end of donation is too much of a hassle or takes too long, it could deter users from donating. So, it is important to choose a payment gateway that is quick and efficient to use.



## Payment Options

### 1. Bank Transfer



**Overview:** A bank transfer is when a person sends money directly from their bank to the others. This is usually done electronically via online banking. This process is fast, free, and safe.

#### Pros:

- Fast and convenient for users complete the payment process
- No transaction fees
- While not everyone has a credit card, almost all Singaporeans have a bank account
- No security worries as they do not need to disclose financial details
- No chargeback, bank transfers are non-refundable

#### Cons:

- Does not have single click payments
- Lack money transparency
- Not everyone will complete the donation
- No references on bank account can be confusing



## 2. Credit and Debit Cards



**Overview:** Credit and Debit cards are the most widely used online payment on the internet. They are accepted in almost all online stores and considered reasonably safe. The main difference between a credit card and debit card is that a credit card is charged to a line of credit for which he or she is billed later while a debit card is charging directly from a user's bank account.

### Pros of Credit Card:

- Considered reasonably safe
- Single click payments
- Allow phone payments
- Portable

### Cons of Credit Card:

- Each transaction charges a commission
- They are capped
- Requires a lot of security measures
- Most expensive form of payment option

### Pros of Debit Card:

- PIN-activated, offers more security
- Not much fees involved
- Convenient
- Can avoid debt

### Cons of Debit Card:

- No grace period, funds is deducted immediately
- Difficult to dispute fraudulent use

## 3. PayPal



**Overview:** PayPal is the largest and most used third-party payment provider available. It is an online payment platform that offers low-cost services that allows you to pay for items using a secure internet account. By simply adding your bank account, credit card or debit card, you can easily make payments online.

### **Pros:**

- User-friendly
- Records transactions
- Safely encrypted
- Mobile friendly

### **Cons:**

- Charges when receiving money
- Additional bank fees
- Desirable target for phishing and scams

## 4. Google Pay



**Overview:** A digital wallet and online payment system developed by Google to power tap-to-pay purchases on mobile devices, enabling users to make payments with Android phones, tablets, or watches.

**Pros:**

- Easy to set up and use
- High level of security
- Can make payment through phone
- Easy checkouts
- No extra fees

**Cons:**

- Only support certain smartphones
- Dependent on phones

## 5. Stripe



**Overview:** Stripe, like PayPal, is a third-party payment processor and a payment gateway.

**Pros:**

- Fast and easy setup
- Built-in tools to help with fraud (Radar)
- Easy to integrate
- Minimal fees
- Keep records of payments

**Cons:**

- Does not offer direct support unless you pay
- Possibility of Radar stopping high number of legitimate transactions as fraud

### Payment Option Summary

Therefore, our platform Crowdfunding for Sick (CFS), will be using Stripe as our payment option as compared to the other payment options mentioned above. Stripe enables a user to stay on the site instead of being redirected to another site when making a payment. As web developers, we have used many payment gateways and find some to be quite fiddly and time consuming. As it has a great API, we've found Stripe to be one of the easiest to setup, integrate and maintain. It also provides full control over the look and feel of the entire payment experience to a developer. Stripe is a much more efficient alternative to Paypal, which, when making a payment, takes the users offsite. Secondly, Stripe is not linked to a particular bank and is one of Australia's only multi-currency payment companies without the need to apply for an Internet Merchant Account. In order to keep the data of your customers safe, Stripe also offers secure interaction with its servers. All in all, Stripe makes it simple with no set up costs, no recurring fees, no minimum charges, and no card storage fees!

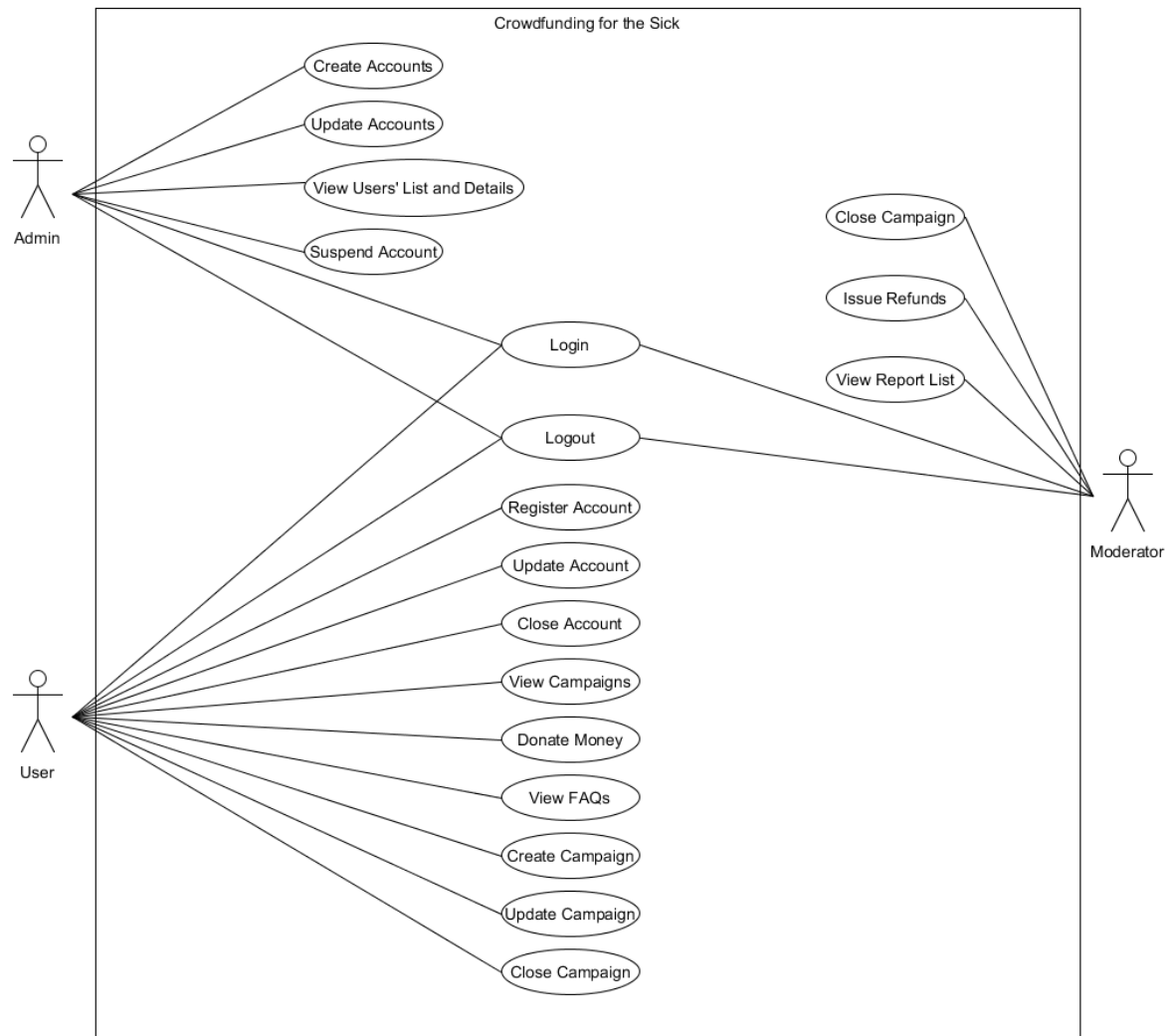
# Project Requirement Documentation

## Cost Estimation

Project Name	Crowdfunding for the Sick		
Topic Code	CSIT-20-S4-01		
Our Budget	\$100,000		
	<b>WEEK (Total 20 Weeks)</b>	<b>Total Expenses</b>	<b>Total Estimate</b>
<b>Team members and Roles</b>	<b>WBS (Categories)</b>		
1.1. Team leader & Backend Programming (Saw Zhe Jian)	Labour (Hour) [\$25/1h] [4h/1day] [\$100/1 day] => [\$700/1 week]	\$14,000	
1.2. Frontend Developer & UX/UI Lead (Lek Jing Kai)	Labour (Hour) [\$25/1h] [4h/1day] [\$100/1 day] => [\$700/1 week]	\$14,000	
1.3. Secretary & Technical Writer (Ng Ming Yao)	Labour (Hour) [\$25/1h] [4h/1day] [\$100/1 day] => [\$700/1 week]	\$14,000	
1.4. Business Manager & Technical Writer (Luong Hong Khanh)	Labour (Hour) [\$25/1h] [4h/1day] [\$100/1 day] => [\$700/1 week]	\$14,000	
1.5. Documentation Manager & Technical Writer (Pearlyn Ooi Pei Ling)	Labour (Hour) [\$25/1h] [4h/1day] [\$100/1 day] => [\$700/1 week]	\$14,000	
2. All members	Office Rental	\$0	
3.1. Team Programming (Saw Zhe Jian & Lek Jing Kai)	Equipment (Hardware, Software, etc)	\$2,500	
3.2. Team Documentation (Ng Ming Yao, Luong Hong Khanh, Pearlyn Ooi Pei Ling)	Equipment (Hardware, Software, Microsoft Office, etc)	\$2,650	
4.1. All members	Instructor Cost (\$500/1p)		
4.2. All members	Training Material Cost (\$500/1p)		
4.3. All members	Training Equipment Cost (\$500/1)		
4.4. All members	>>>Total Training Fees (\$1500/1p)	\$7500	
5. Team Programming (Saw Zhe Jian & Lek Jing Kai)	Design & Code & Tester (User interface, website, etc)	\$3,000	
6. All members	Insurance (\$1000/1pp)	\$5,000	
7. All members	5% Donate from campaign	\$10000 x 5%	
8. Team Programming (Saw Zhe Jian & Lek Jing Kai)	Maintenance (Website + Equipment) & Upgrade	\$2000 - \$500(5% donate from campaign)	
9. All members	Other Risks	\$2,500	
		\$93,150	
			\$100000 - \$93150
			\$5,850

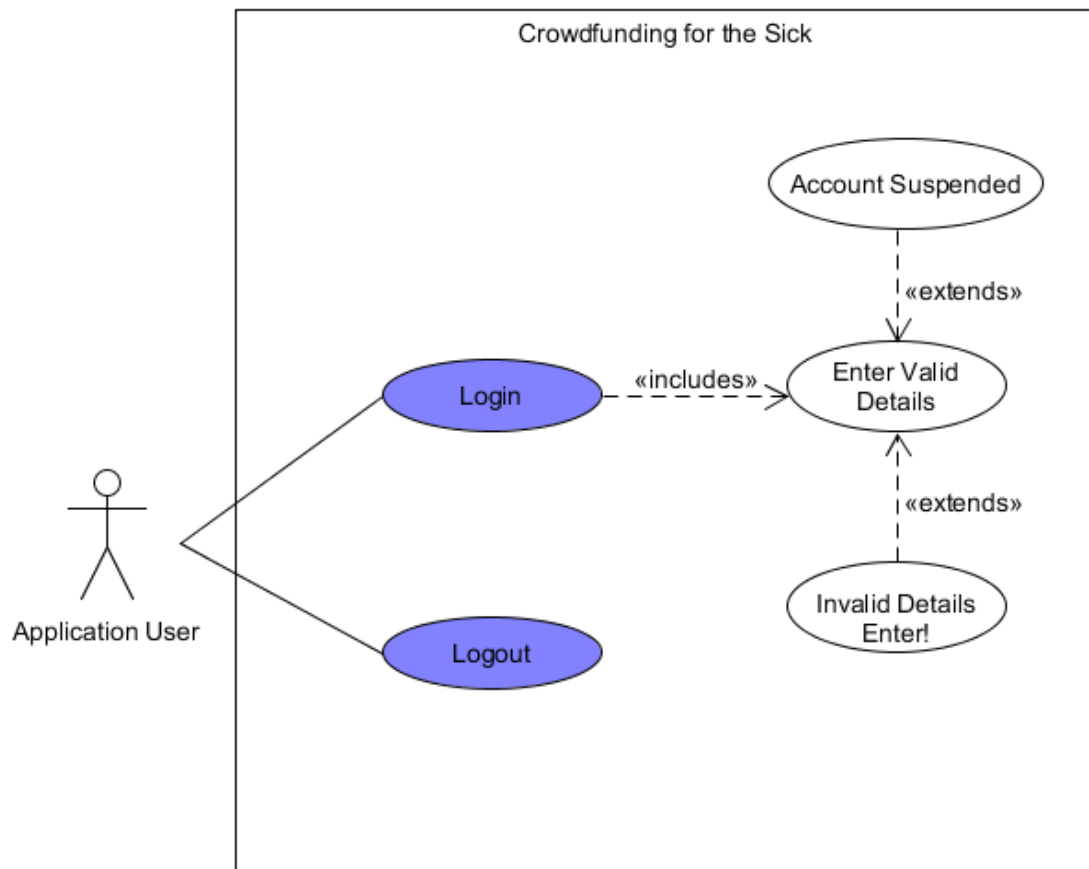
## Functional Requirement Specification

### Overview



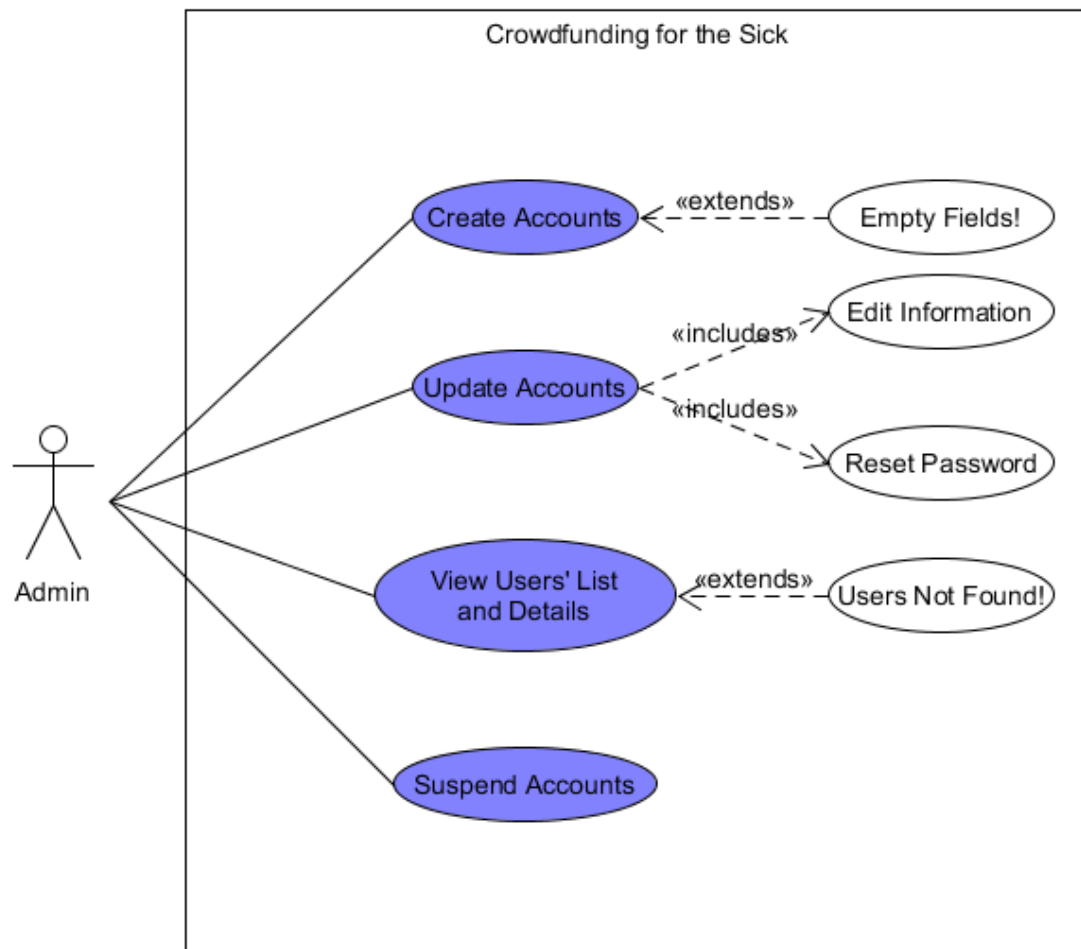
## Use Case Diagrams

Actor: All Roles



# Project Requirement Documentation

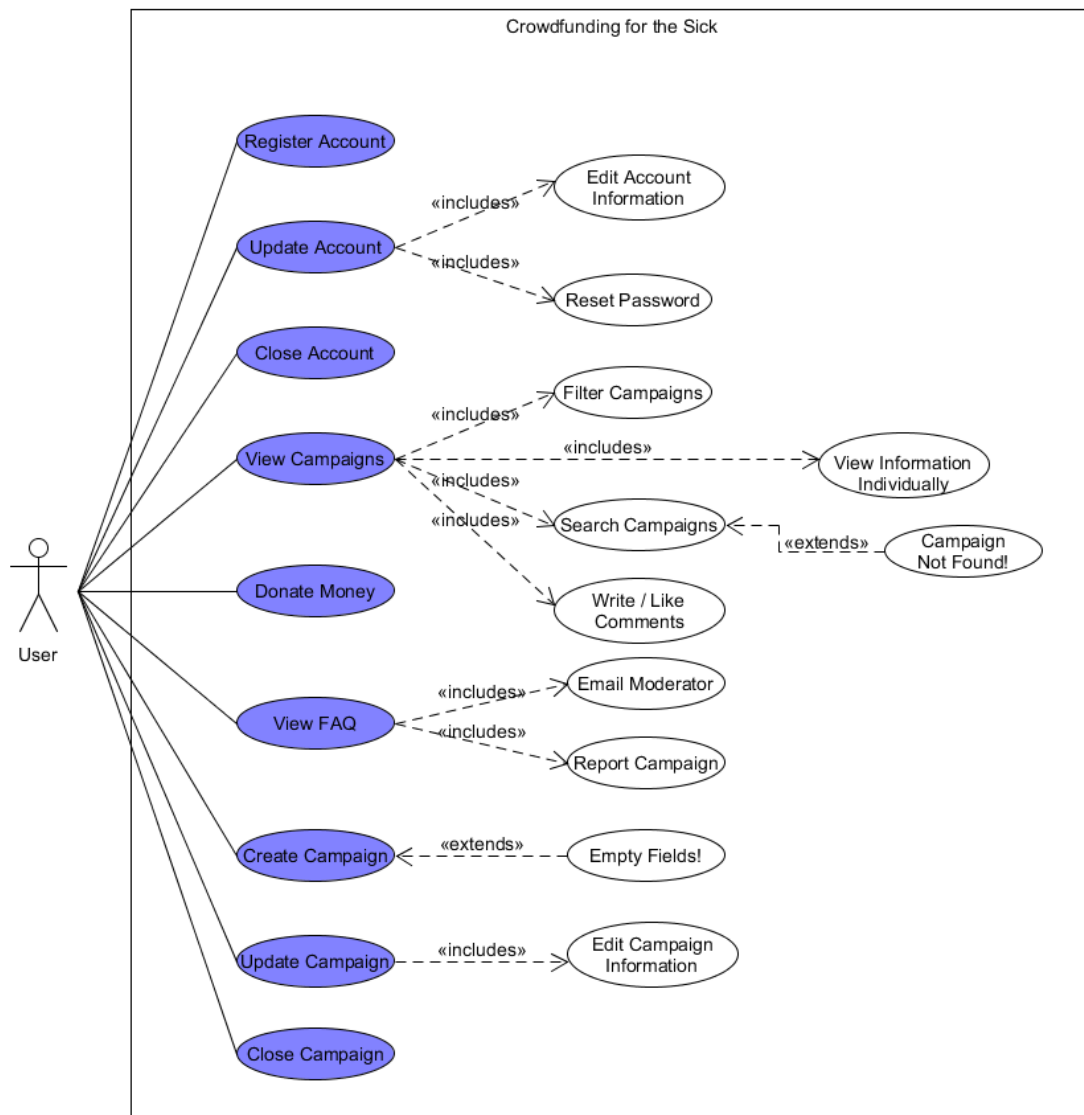
**Actor: Admin**





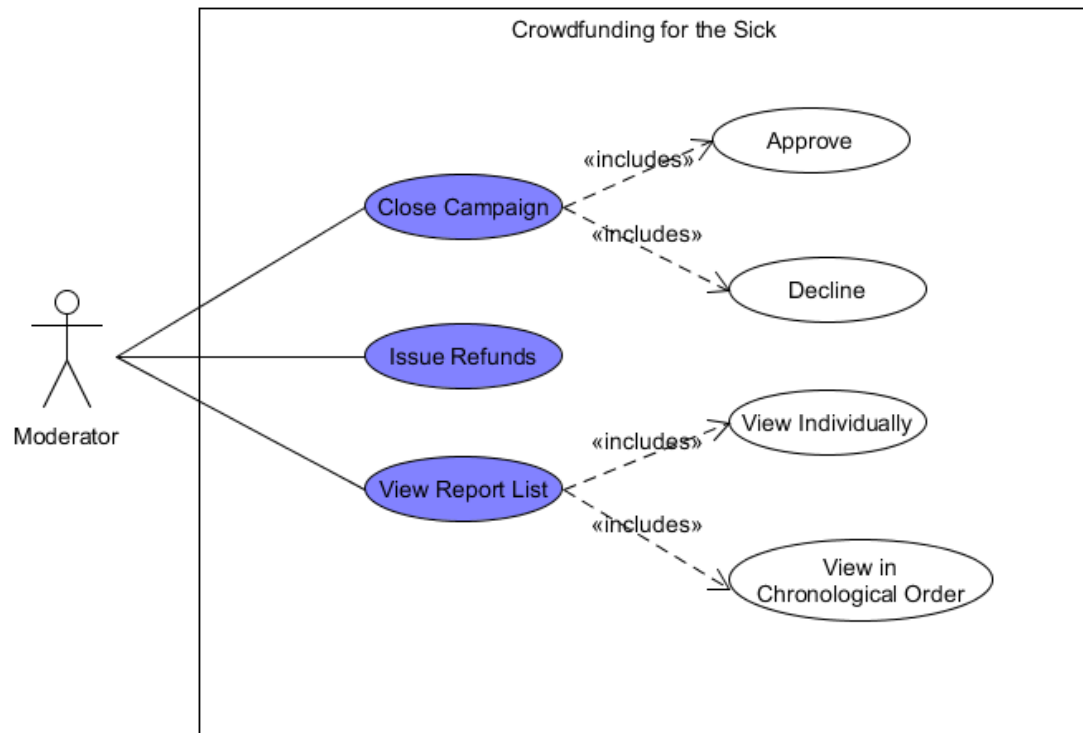
# Project Requirement Documentation

**Actor: User**



# Project Requirement Documentation

**Actor: Moderator**



# Project Requirement Documentation

## User Stories

### Actor: Admin

S/No.	Descriptions
1	As an Admin, I want to be able to create different users' account so that I can test the system.
2	As an Admin, I want to be able to retrieve the list of all users' account so that I can keep track of the number of users on the learning platform and view the accounts' information.
3	As an Admin, I want to be able to search for a user's account so that I can find the user more efficiently and effectively.
4	As an Admin, I want to be able to update an account so that I can help to reset the password or change other information if needed.
5	As an Admin, I want to be able to suspend accounts so that I can keep the platform safe and regulated.

### Actor: User

S/No.	Descriptions
<b>Supporting</b>	
1	As a User, I want to be able to register for an account so that I have the platform privileges, to be able to learn about the different campaigns and help those in need.
2	As a User, I want to be able to login to my account so that I can access the platform to make donations to raise funds for people struggling with healthcare expenses.
3	As a User, I want to be able to log out of my account so that I can end my session on the platform.
4	As a User, I want to update my personal details so that I can keep my information about me up to date.
5	As a User, I want to view the campaigns without needing to login so that I'm able to understand what this platform is about without forcing me to create an account and login.
6	As a User, I want to view the campaigns that have ended so that I can see what campaigns have been created in the past.
7	As a User, I want to be able to view the campaigns I followed so that I can keep track of them easily.
8	As a User, I want to be able to view the campaigns I have created so that I can keep track of them easily.
9	As a User, I want to donate money through a payment platform on the website so that I can support the campaigns.
10	As a User, I wish to filter through the campaigns so that I can view campaigns that are relevant to a certain tag.
11	As a User, I want to be able to search for a specific campaign so that I am able to find the campaign that I want to support.
12	As a User, I want to see the full information about a campaign so that I'm able to understand what the campaign is about.
13	As a User, I wish to subscribe to a campaign so that I can stay updated about the campaigns I'm interested in.
14	As a User, I want to be able to share the campaign to social media so that I can increase awareness.

## Project Requirement Documentation

15	As a User, I want to be able to close my account so that I am no longer associated with the platform.
16	As a User, I want to be able to leave comments so that I can share my opinion on the platform.
17	As a User, I wish to email a moderator or write a support ticket so that I the moderator can help me on an existing issue that I currently have.
18	As a User, I want to report against a campaign if I find that this campaign inadequate or suspicious.
<b>Organising</b>	
19	As a User, I want to be able to create a campaign so that I seek financial assistance from users that are willing to support my cause.

### *Actor: Moderator*

S/No.	Descriptions
1	As a Moderator, I want to be able to view a list of reports so that I can moderate any fraudulent activities or toxic behaviours.

# Project Requirement Documentation

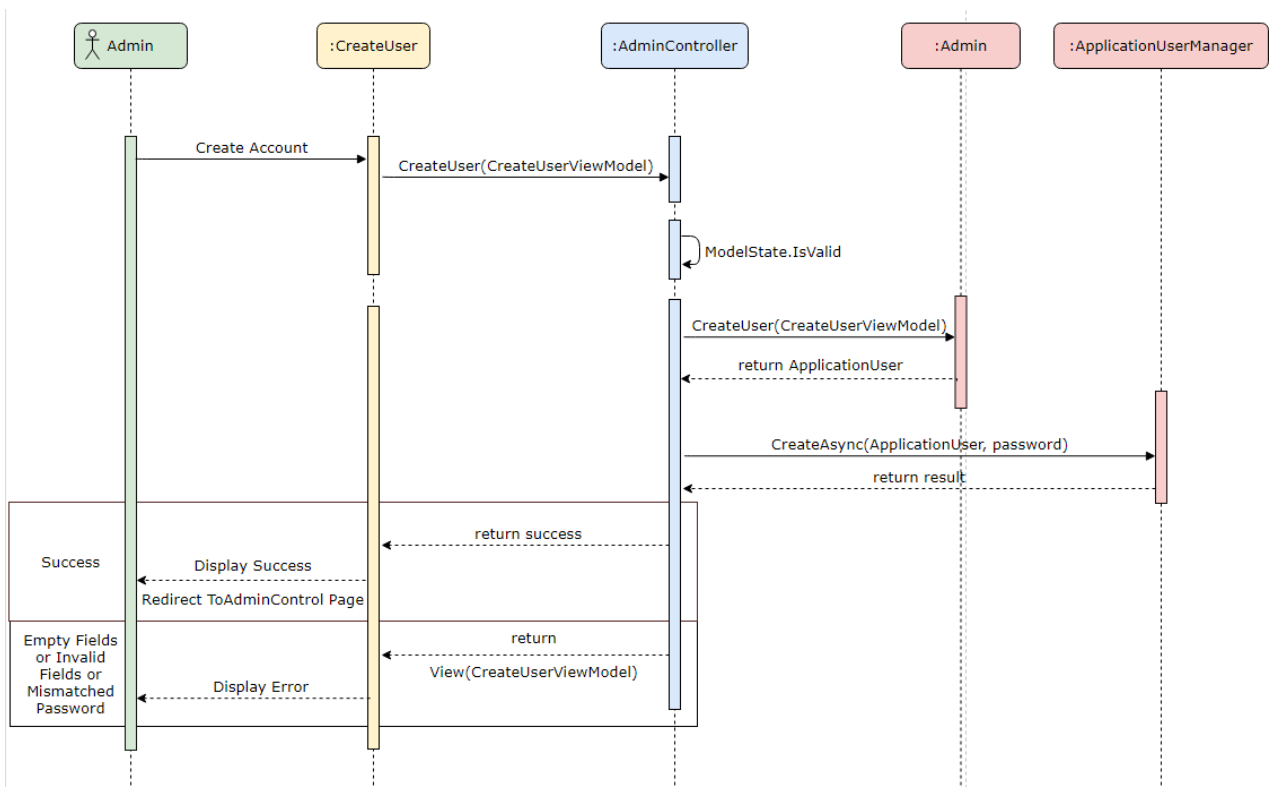
## Use Case Descriptions, Sequence Diagrams & Wireframes

**Actor: Admin**

1. As an Admin, I want to be able to create different users' accounts so that I can create moderator or admin account if required.

Use Case: Admin Create Accounts		ID: #
Stakeholders and Goals:	Admin User – To create account	
Description:	Admin User can create an account for any user.	
Actors:	Admin	
Pre-Condition:	Admin must be logged in	
Post-Condition:	Admin has created an account for a User, Moderator, or an Admin.	
Trigger:	The admin wants to create an account for others	
<b>Normal Flow:</b> <ul style="list-style-type: none"><li>1. Admin user clicks on the “Admin” button.</li><li>2. The system displays the list of all users’ accounts with their details.</li><li>3. Admin user clicks the “Create User” button.</li><li>4. The system displays the Create User form for the Admin.</li><li>5. Admin user completes the form and clicks the “Create” button.</li><li>6. The system registers the new user into the system.</li><li>7. Admin completes the account creation successfully.</li><li>8. The system redirects back to the “Admin” page.</li><li>9. End</li></ul>		
Sub-Flows:	None	
<b>Alternative/Exceptional Flows:</b> <ul style="list-style-type: none"><li>5a. Empty fields: The system displays an error message for each empty field and the Admin must complete the fields.</li><li>5b. Invalid Username: The system displays an error message and the Admin must enter a different username.</li><li>5c. Invalid Email: The system displays an error message and the User must enter a valid email.</li><li>5d. Email already exists: The system displays an error message and the Admin must enter another email.</li><li>5e. Invalid Password: The system displays an error message and the Admin must enter a password that matches the given criteria.</li><li>5f. Passwords do not match: The system displays an error message and the Admin must match both passwords.</li></ul>		

Sequence Diagram: Admin Create Accounts



Wireframe: Admin Create Accounts

[Home](#)

Hello root!

Log off

### Create User

UserName

FullName

Email

Password

Select Role

Select Role ▼

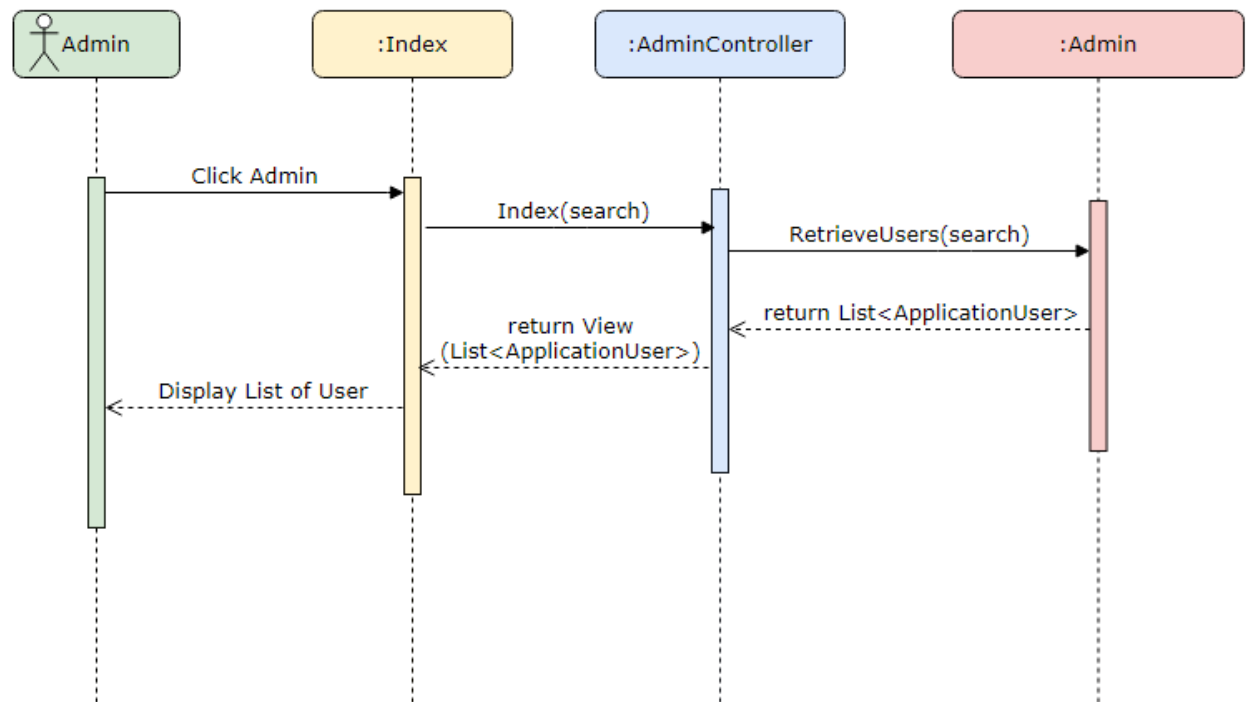
Create

# Project Requirement Documentation

2. As an Admin, I want to be able to retrieve all the list of all users' accounts so that I can keep track of the number of users on the learning platform and view the accounts' information.

Use Case: Admin to Retrieve List of Users' Account		ID: #
Stakeholders and Goals:	Admin – Wants to view the list of all users' accounts with details	
Description:	An Admin wants to view the list of all users' accounts with details so that he/she can keep track of the number of users on the platform.	
Actors:	Admin	
Pre-Condition:	Admin must be logged in	
Post-Condition:	The list of users' accounts with their details is displayed to the Admin	
Trigger:	The Admin wants to view the list of all users' accounts.	
Normal Flow: 1. The Admin clicks on the “Admin” button. 2. The system displays the list of all users' accounts with their details. 3. End.		
Sub-Flows:	None	
Alternative/Exceptional Flows: None		

## Sequence Diagram: Admin to Retrieve List of Users' Account



## Wireframe: Admin to Retrieve List of Users' Account

[Home](#)Hello root! [Log off](#)

### Control Panel

UserName	Full Name	Email	Suspended
Jacky	Jacky Chan	jackychan@domain.com	<input type="checkbox"/> <a href="#">Edit</a>
Tom	Tom Tom	tomtom@domain.com	<input type="checkbox"/> <a href="#">Edit</a>
Jake	Jake Paul	jakepaul@domain.com	<input type="checkbox"/> <a href="#">Edit</a>

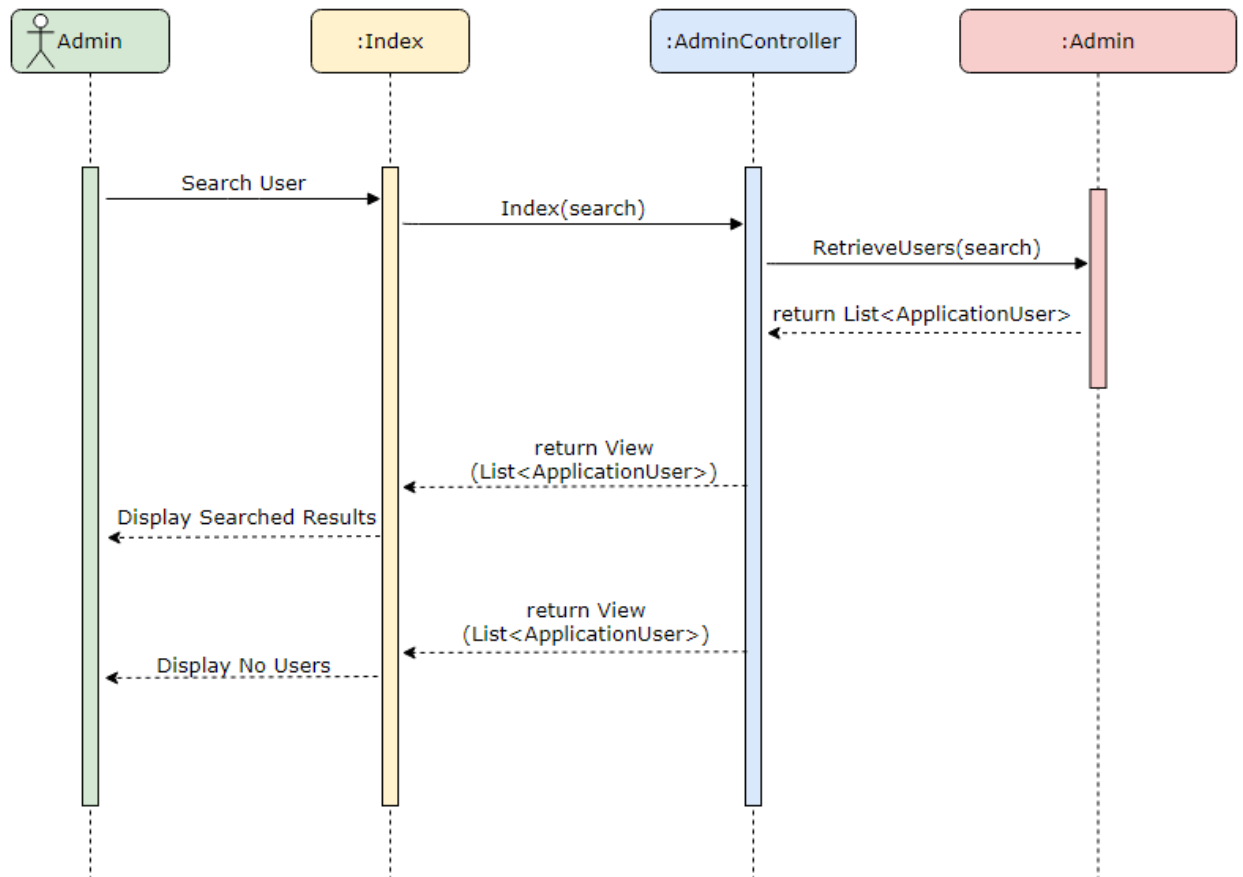


# Project Requirement Documentation

3. As an Admin, I want to be able to search for a user's account so that I can find the user more efficiently and effectively.

Use Case:		ID: #
Stakeholders and Goals:	Admin – wants to search for a user	
Description:	An Admin wants to search for a user in the list of all users’ accounts.	
Actors:	Admin	
Pre-Condition:	Admin must be logged in.	
Post-Condition:	The searched user’s account is displayed to the Admin.	
Trigger:	The Admin opens the list of user accounts and wants to find a specific user quickly.	
<b>Normal Flow:</b> <ol style="list-style-type: none"><li>1. The Admins goes to the top of the list and clicks the search field.</li><li>2. The Admin fills in the search bar and clicks the “Search” button.</li><li>3. The system retrieves the information from the search string.</li><li>4. The system displays the list of the account(s) where the username partially or fully matches the searched string.</li><li>5. End.</li></ol>		
Sub-Flows:	None	
<b>Alternative/Exceptional Flows:</b> <ol style="list-style-type: none"><li>4a. No matching User: The system does not display any user.</li></ol>		

## Sequence Diagram:



## Wireframe:

**Home**Hello root! [Log off](#)

**Control Panel**

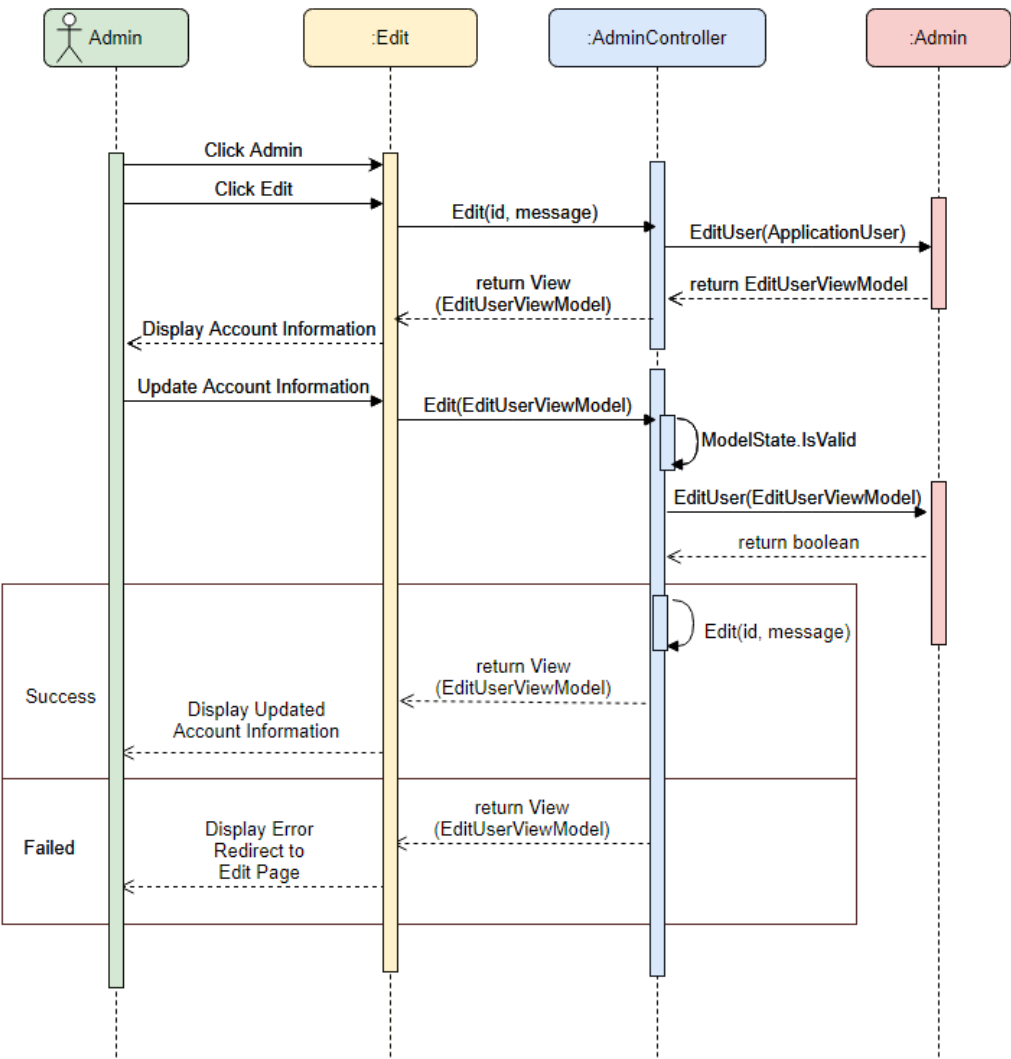
UserName	Full Name	Email	Suspended	
Jacky	Jacky Chan	jackychan@domain.com	<input type="checkbox"/>	<a href="#">Edit</a>
Tom	Tom Tom	tomtom@domain.com	<input type="checkbox"/>	<a href="#">Edit</a>
Jake	Jake Paul	jakepaul@domain.com	<input type="checkbox"/>	<a href="#">Edit</a>

# Project Requirement Documentation

4. As an Admin, I want to be able to update an account so that I can help to reset the password or change other information if needed.

Use Case: Admin to Update User’s Account		ID: #
Stakeholders and Goals:	Admin – wants to update account information for others	
Description:	An Admin wants to update a user’s account information or reset a user’s password if needed.	
Actors:	Admin	
Pre-Condition:	Admin must be logged in	
Post-Condition:	Admin has updated the information or has reset the password of an account	
Trigger:	The User/Moderator requests to reset or update account information	
Normal Flow:		
<div>1. The Admin clicks on the “Admin” button.</div> <div>2. The system displays the list of all users’ accounts.</div> <div>3. The Admin clicks on “Edit” beside the account he/she wishes to update.</div> <div>4. The system displays the selected account’s current information with editable fields.</div> <div>5. The Admin updates the form and clicks “Save”.</div> <div>6. The system redirects back to the list of all users’ accounts.</div> <div>7. End.</div>		
Sub-Flows:	<div>1. The Admin clicks on the “Admin” button.</div> <div>2. The system displays the list of all users’ accounts.</div> <div>3. The Admin clicks on “Edit” beside the account he/she wishes to update.</div> <div>4. The system displays the selected account’s current information with editable fields.</div> <div>5. The Admin clicks on “Reset Password”.</div> <div>6. The System displays the reset password form.</div> <div>7. The Admin completes the form and clicks “Reset password”.</div> <div>8. The system redirects back to the “Edit” page.</div> <div>9. End.</div>	
Alternative/Exceptional Flows:		
<div>5a/S7a. Empty fields: The system displays an error message for each empty field and the User Admin has to complete the fields.</div> <div>5b. Invalid Email: The system displays an error message and the User Admin has to enter a valid email.</div> <div>5c. Email already exists: The system displays an error message and the User Admin has to enter another email.</div>		

Sequence Diagram: Admin to Update User's Account



Wireframe: Admin to Update User's Account

Home

Hello root!

Log off

Editing User's Account

UserName

FullName

Email

Password

Reset Password

Suspended

☐

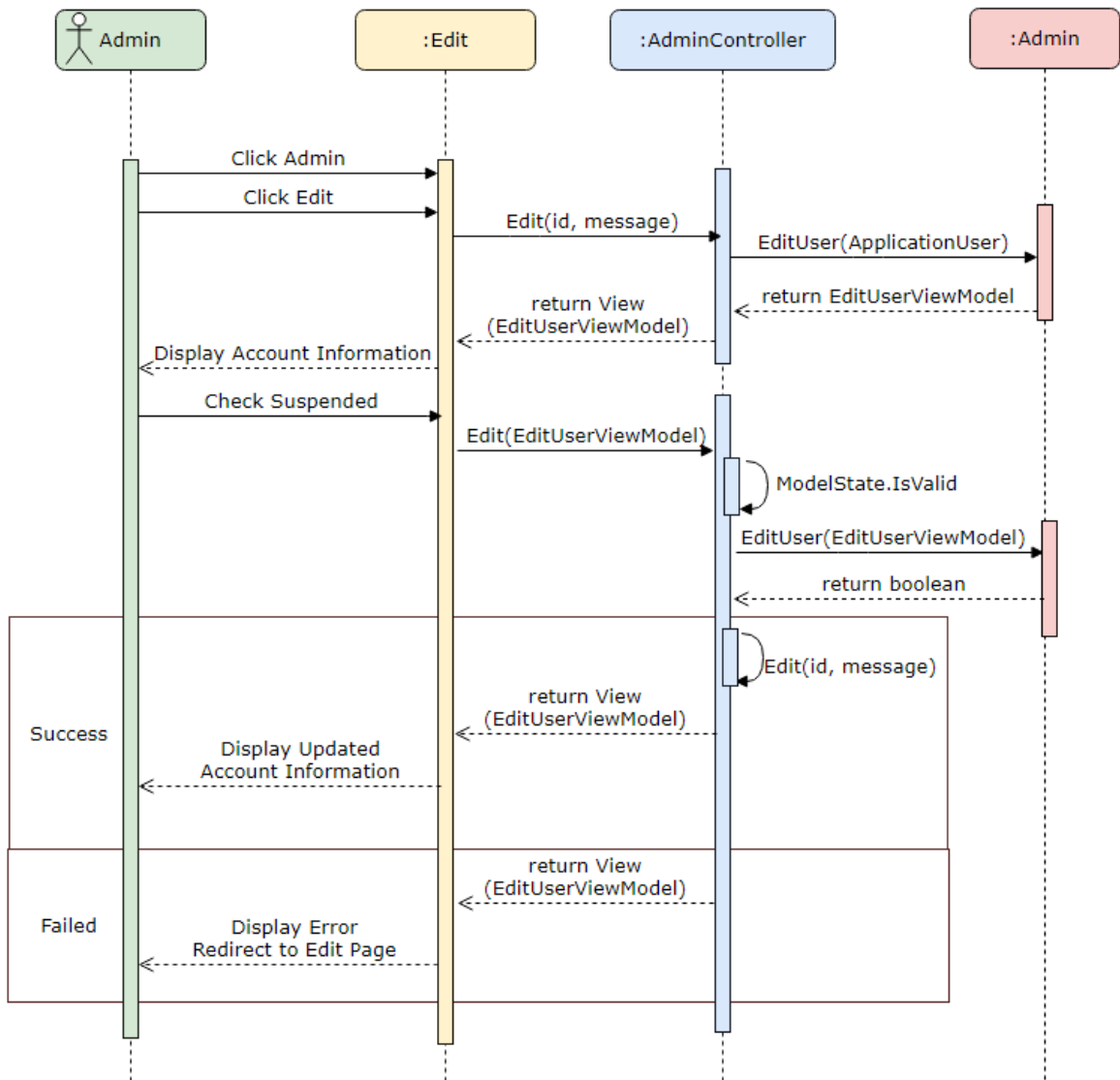
Save

# Project Requirement Documentation

5. As an Admin, I want to be able to suspend accounts so that I can keep the platform safe and regulated.

Use Case: Admin to Suspend User’s Account		ID: #
Stakeholders and Goals:	Admin – wants to suspend a user’s account	
Description:	An Admin wants to suspend a user’s account when needed.	
Actors:	Admin	
Pre-Condition:	Admin must be logged in	
Post-Condition:	Admin has suspended an account	
Trigger:	The Moderator submits a request to terminate an account due to suspicious activity	
<b>Normal Flow:</b> <ul style="list-style-type: none"><li>1. The User Admin clicks on the “Admin” button.</li><li>2. The system displays the list of all users’ accounts.</li><li>3. The User Admin clicks on “Edit” beside the account he/she wishes to suspend.</li><li>4. The system displays the selected account’s current information with editable fields.</li><li>5. The User Admin checks the “Suspended” checkbox.</li><li>6. The User Admin clicks on the “Save” button.</li><li>7. The system redirects back to the list of all users’ accounts.</li><li>8. End</li></ul>		
Sub-Flows:	None	
Alternative/Exceptional Flows: None		

Sequence Diagram: Admin to Suspend User's Account



Wireframe: Admin to Suspend User's Account

[Home](#)Hello root! [Log off](#)

### Editing User's Account

UserName

FullName

Email

Password

Reset Password

Suspended

☐

Save

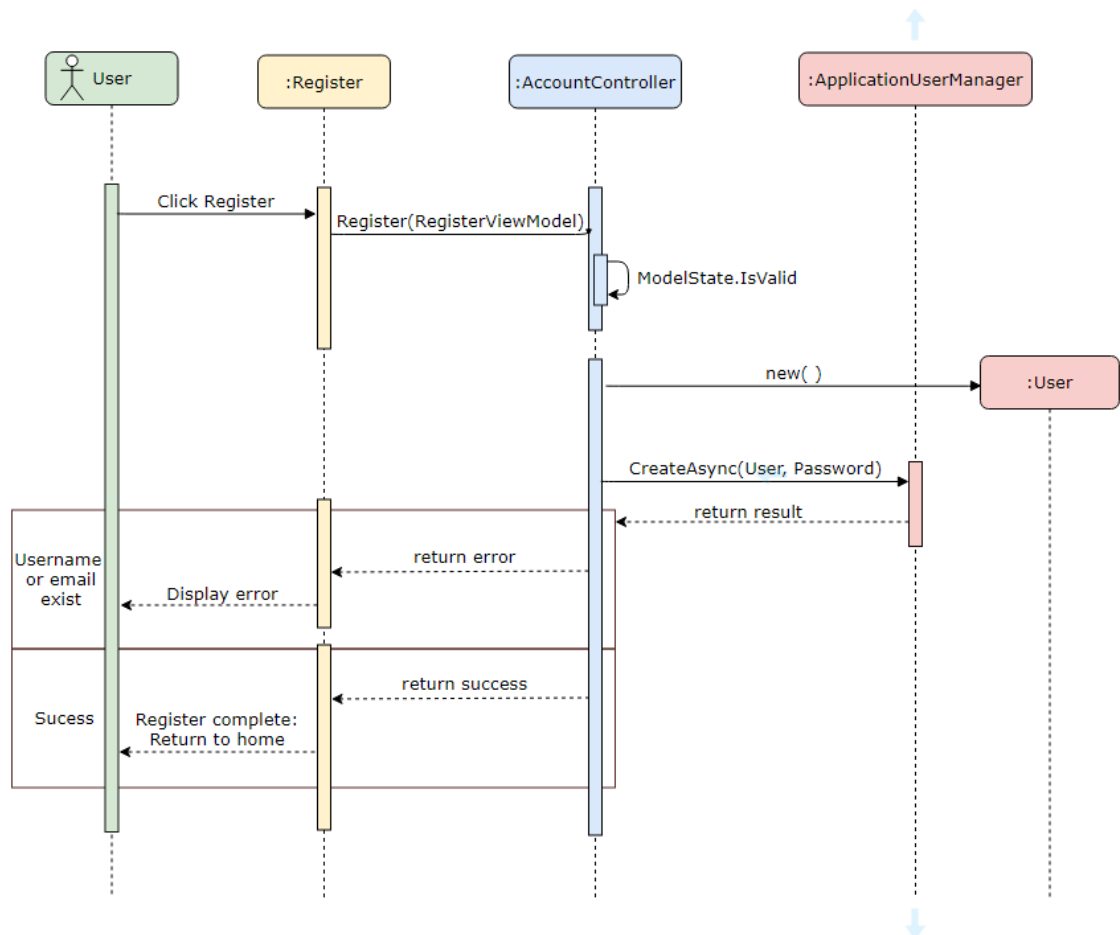
# Project Requirement Documentation

## **Actor: User**

1. As a User, I want to be able to register for an account so that I have the platform privileges to be able to learn about the different campaigns and help those in need.

Use Case: User to register an account		ID: #
Stakeholders and Goals:	User – wants to register for an account	
Description:	A User wants to register for an account to access the crowdfunding platform.	
Actors:	User	
Pre-Condition:	None	
Post-Condition:	User account is created and stored into the database.	
Trigger:	User without an account wants to access the platform.	
Normal Flow:		
<div>1. The User clicks the “Register” button.</div> <div>2. The system displays the register form.</div> <div>3. The User completes the form and clicks “Register”.</div> <div>4. The system redirects back to the homepage.</div> <div>5. End.</div>		
Sub-Flows:	None	
Alternative/Exceptional Flows:		
<div>3a. Empty fields: The system displays an error message for each empty field and the User has to complete the fields.</div> <div>3b. Invalid Username: The system displays an error message and the User has to enter a different username.</div> <div>3c. Invalid Email: The system displays an error message and the User has to enter a valid email.</div> <div>3d. Email already exists: The system displays an error message and the User has to enter another email.</div> <div>3e. Invalid Password: The system displays an error message and the User has to enter a password that matches the given criteria.</div> <div>3f. Passwords do not match: The system displays an error message and the User have to match both passwords.</div>		

## Sequence Diagram: User to register an account



## Wireframe: User to register an account

[Home](#)
[Register](#)
[Login](#)

### Register

Create new account

UserName

FullName

Email

Password

ConfirmPassword

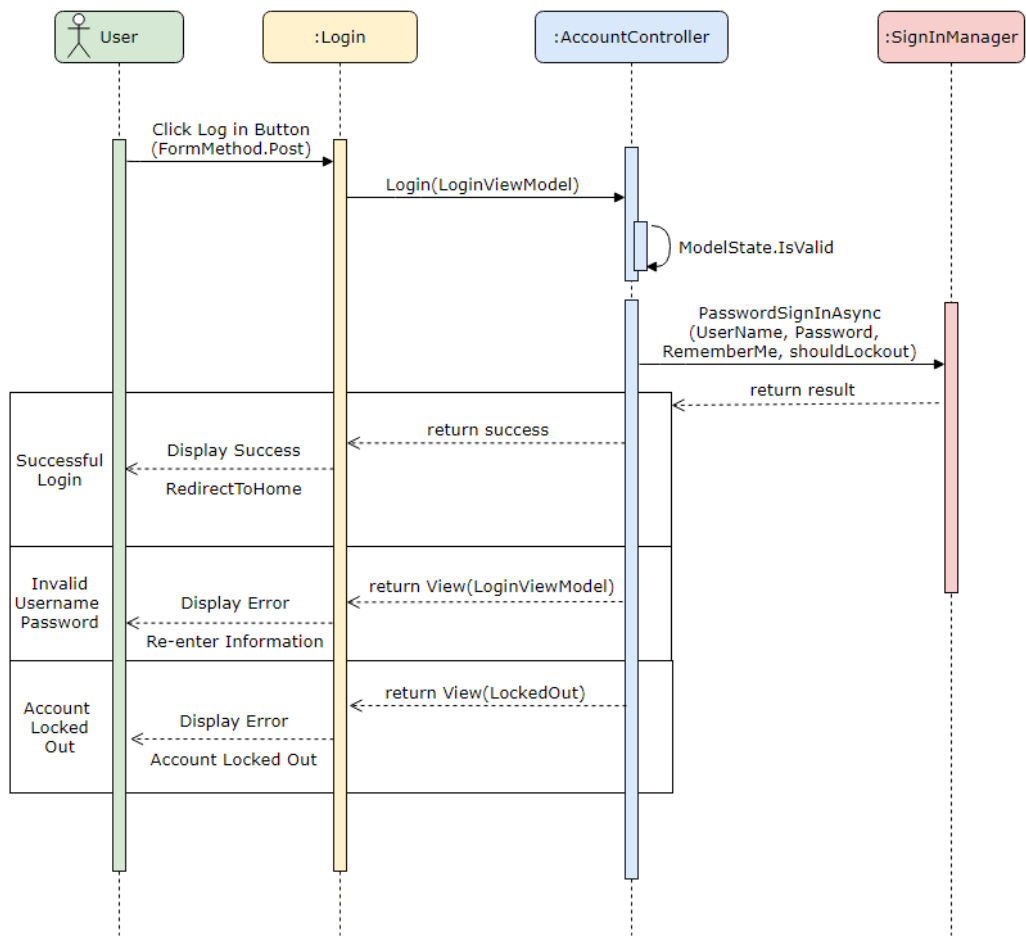


# Project Requirement Documentation

2. As a User, I want to be able to log in to my account so that I can access the platform to make donations to raise funds for people struggling with healthcare expenses.

Use Case: User Login to the Platform		ID: #
Stakeholders and Goals:	User – wants to log in to the platform.	
Description:	A User wants to log in to the crowdfunding platform so that he/she can create, donate to or share a campaign.	
Actors:	User	
Pre-Condition:	User must have a registered account	
Post-Condition:	User is logged in to the platform	
Trigger:	The User opens up the platform and wants to log in	
Normal Flow:		
<div>1. The User clicks the “Register” button.</div> <div>2. The system displays the login page.</div> <div>3. The User enters his username and password and clicks login.</div> <div>4. The system logs the User in and redirects back to the homepage.</div> <div>5. End.</div>		
Sub-Flows:	None	
Alternative/Exceptional Flows:		
<div>2a Username or Password is not found: The system displays an error message and the User has to enter the correct username or password.</div> <div>2b Account is suspended: The User is unable to log in unless the Admin lifts the suspension.</div>		

Sequence Diagram: User Login to the Platform



Wireframe: User Login to the Platform

Home

Register

Login

Login

UserName

Password

☐ Remember me?

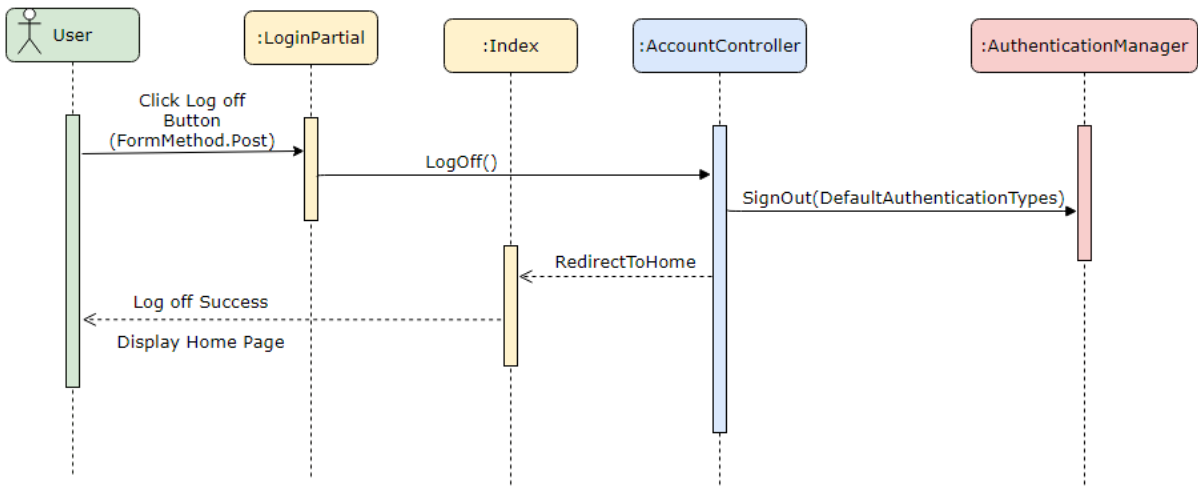
[Register as a new user](#)

## Project Requirement Documentation

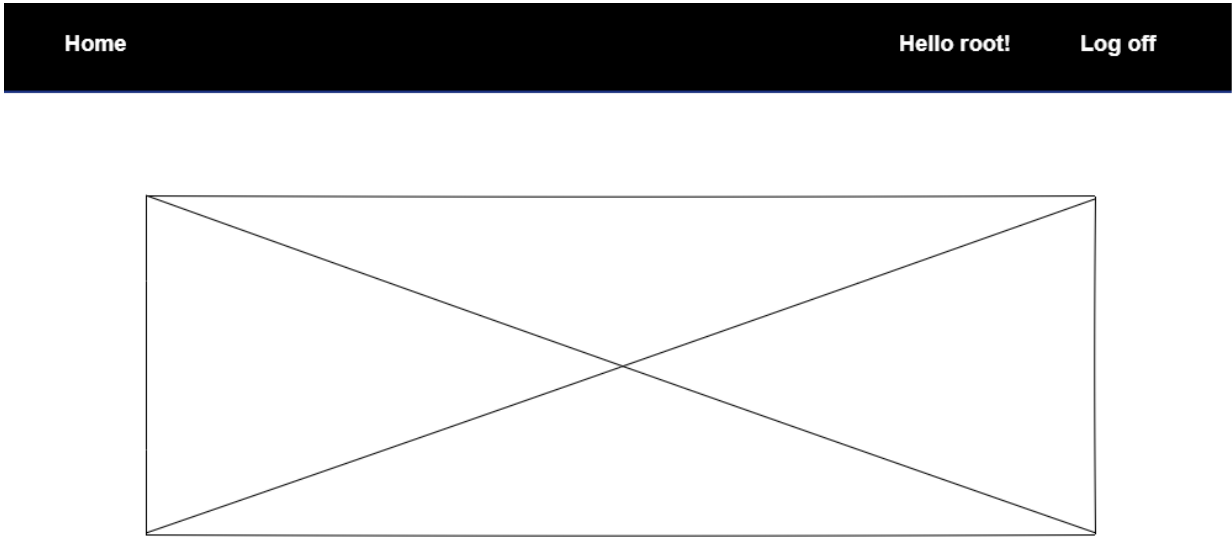
3. As a User, I want to be able to log out of my account so that I can end my session on the platform.

Use Case: User Logout from the Platform		ID: #
Stakeholders and Goals:	User – wants to logout from the platform	
Description:	A User wants to end the session after using the crowdfunding platform.	
Actors:	User	
Pre-Condition:	User must be logged in	
Post-Condition:	User is logged out of the platform	
Trigger:	The User wants to log out	
Normal Flow: <ul style="list-style-type: none"><li>1. The User clicks on the “Logout” button.</li><li>2. The system authenticates the logout.</li><li>3. The system logs the User out.</li><li>4. The system redirects to the default homepage of the platform.</li><li>5. End.</li></ul>		
Sub-Flows:	None	
Alternative/Exceptional Flows: None		

Sequence Diagram: User Logout from the Platform



Wireframe: User Logout from the Platform

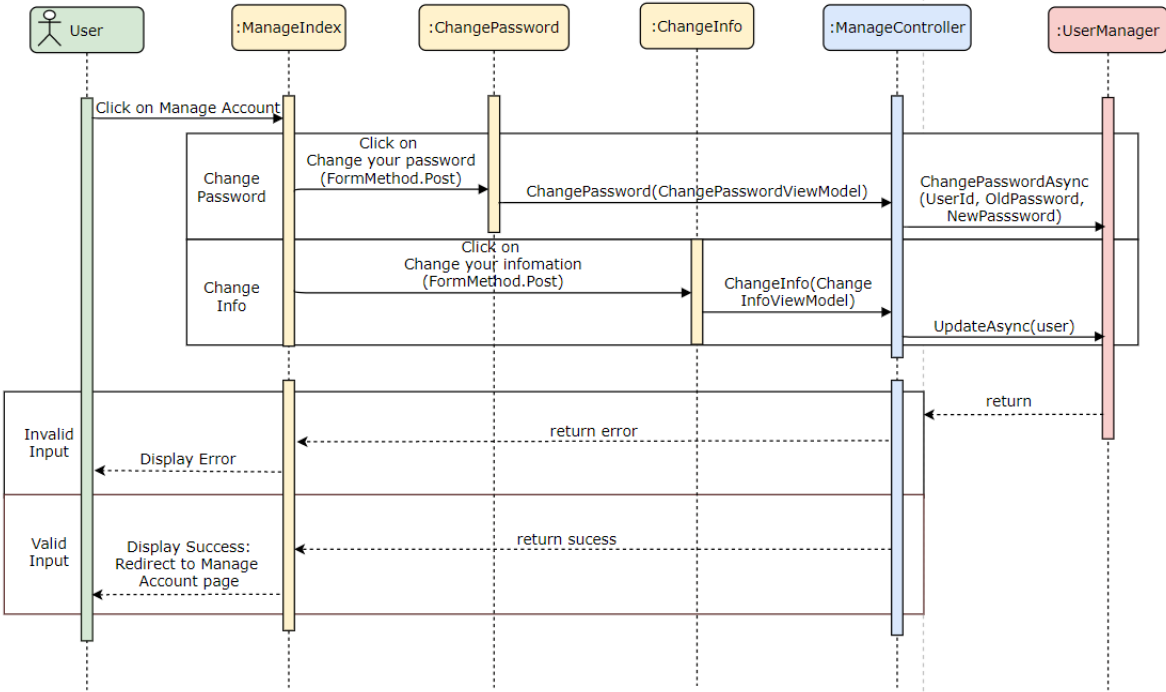


# Project Requirement Documentation

4. As a User, I want to update my personal details so that I can keep my information about me up to date.

Use Case: User to Edit Personal Details		ID: #
Stakeholders and Goals:	User - wants update personal details	
Description:	A User wants to update his personal details on the platform.	
Actors:	User	
Pre-Condition:	User must be logged in	
Post-Condition:	Users’ details are updated.	
Trigger:	Users want to update personal details.	
<b>Normal Flow:</b> <ul style="list-style-type: none"><li>1. The User clicks on the “Edit Profile” button.</li><li>2. The System redirects the user to edit profile pages.</li><li>3. The User changes all needed fields.</li><li>4. The User clicks on the “Confirm” button.</li><li>5. A pop-up screen shows that the details have been saved.</li><li>6. The System redirects the user back to the campaign main page with the campaign latest news shown.</li><li>7. End.</li></ul>		
Sub-Flows:	<ul style="list-style-type: none"><li>1. The User clicks on the username dropdown list.</li><li>2. The system displays the dropdown list.</li><li>3. The User clicks on the “Profile Information” button.</li><li>4. The system redirects the user to edit profile pages.</li><li>5. The User clicks on the “Change Password” tab.</li><li>6. The system displays the “Change Password” form.</li><li>7. The User changes all needed fields and clicks on the “Change Password” button.</li><li>8. The system redirects back to the update information tab and displays a message that shows that the details have been saved.</li><li>9. End.</li></ul>	
Alternative/Exceptional Flows: None		

Sequence Diagram: User to Edit Personal Details



Wireframe: User to Edit Personal Details

Home

Hello root!

Log off

Username

No Image

Details

Close Account

Change Information

Change Password

Update Information

Full Name:

Email:

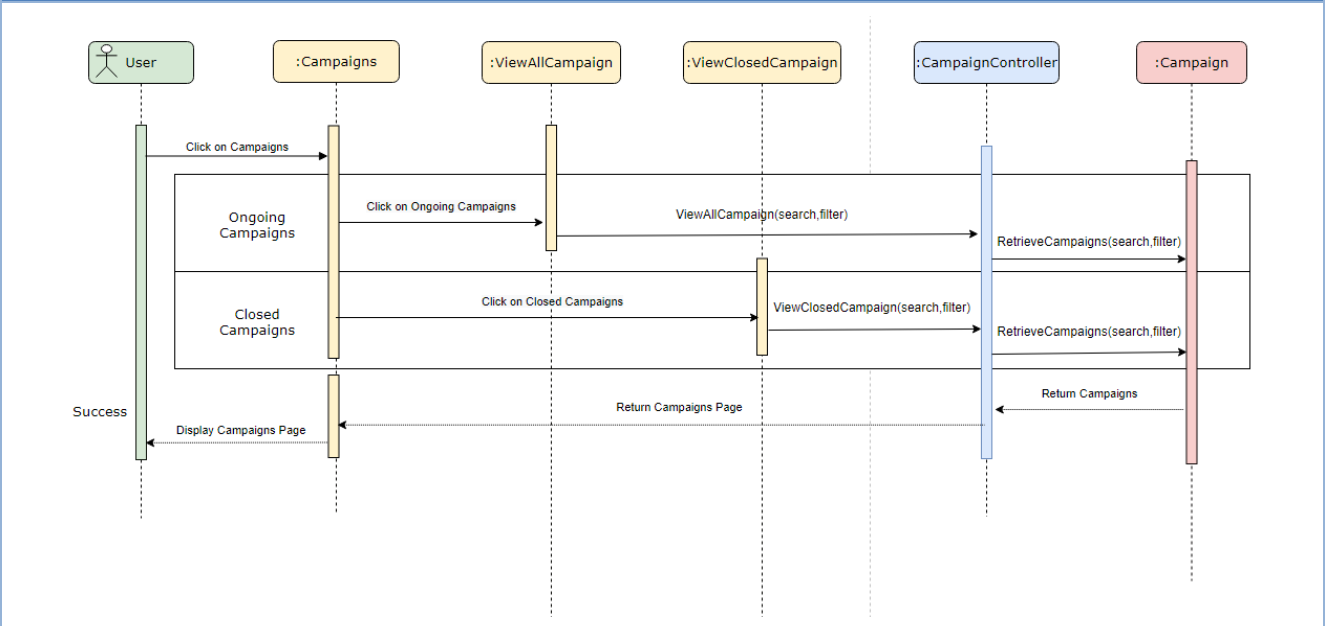
Update

# Project Requirement Documentation

5. As a User, I want to view the campaigns without needing to login so that I'm able to understand what this platform is about without forcing me to create an account.

Use Case: User to View All Campaigns		ID: #
Stakeholders and Goals:	User - wants view campaigns without log in into the platform.	
Description:	A User wants to view campaigns on the platform without having an account on the platform.	
Actors:	User	
Pre-Condition:	None	
Post-Condition:	Users viewed the campaigns.	
Trigger:	Users want to view campaigns on the platform without logging in.	
<b>Normal Flow:</b> <div><div>1. The User enters the platform through a link.</div><div>2. The System redirects the user to the website.</div><div>3. The User clicks on the Campaign button at the navbar menu.</div><div>4. The User then clicks on Ongoing campaigns.</div><div>5. The User is redirected to View All Ongoing Campaigns.</div><div>6. End.</div></div>		
Sub-Flows:	None	
Alternative/Exceptional Flows: None		

Sequence Diagram: User to View All Campaigns



Wireframe: User to View All Campaigns

Home

Hello root!

Log off

Category

Search

No Image

Campaign Title

Campaign Body

Money raised  
Days remaining

No Image

Campaign Title

Campaign Body

Money raised  
Days remaining

No Image

Campaign Title

Campaign Body

Money raised  
Days remaining

No Image

Campaign Title

Campaign Body

Money raised  
Days remaining

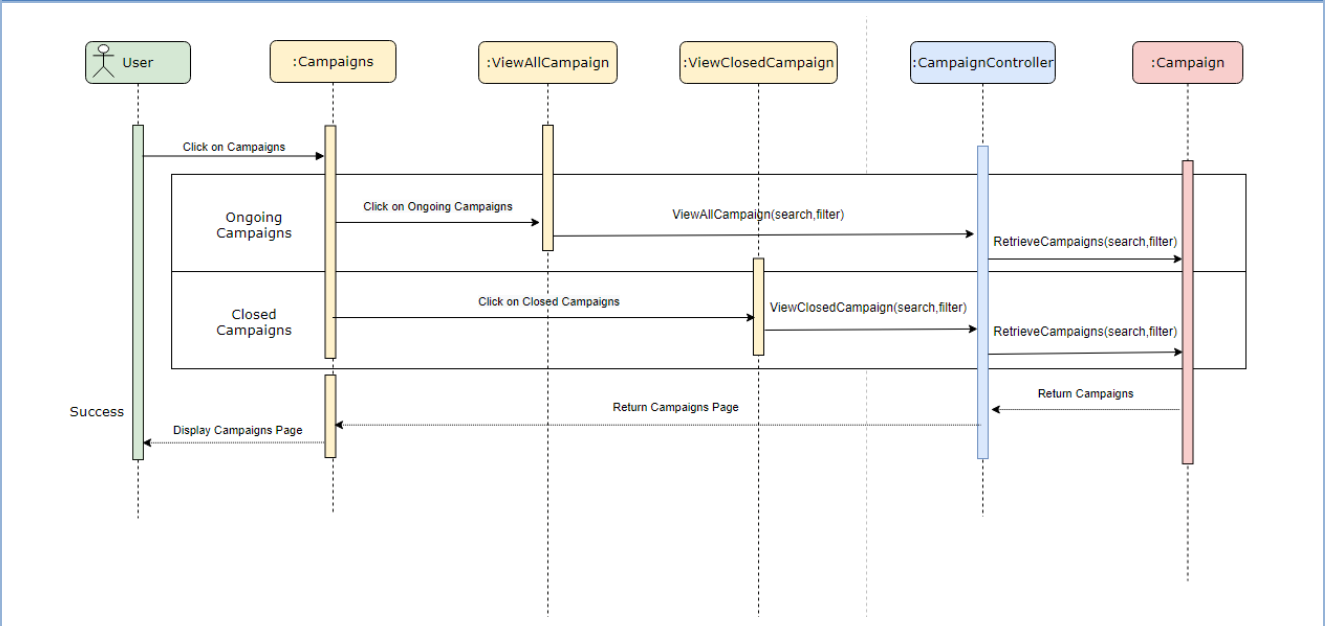


# Project Requirement Documentation

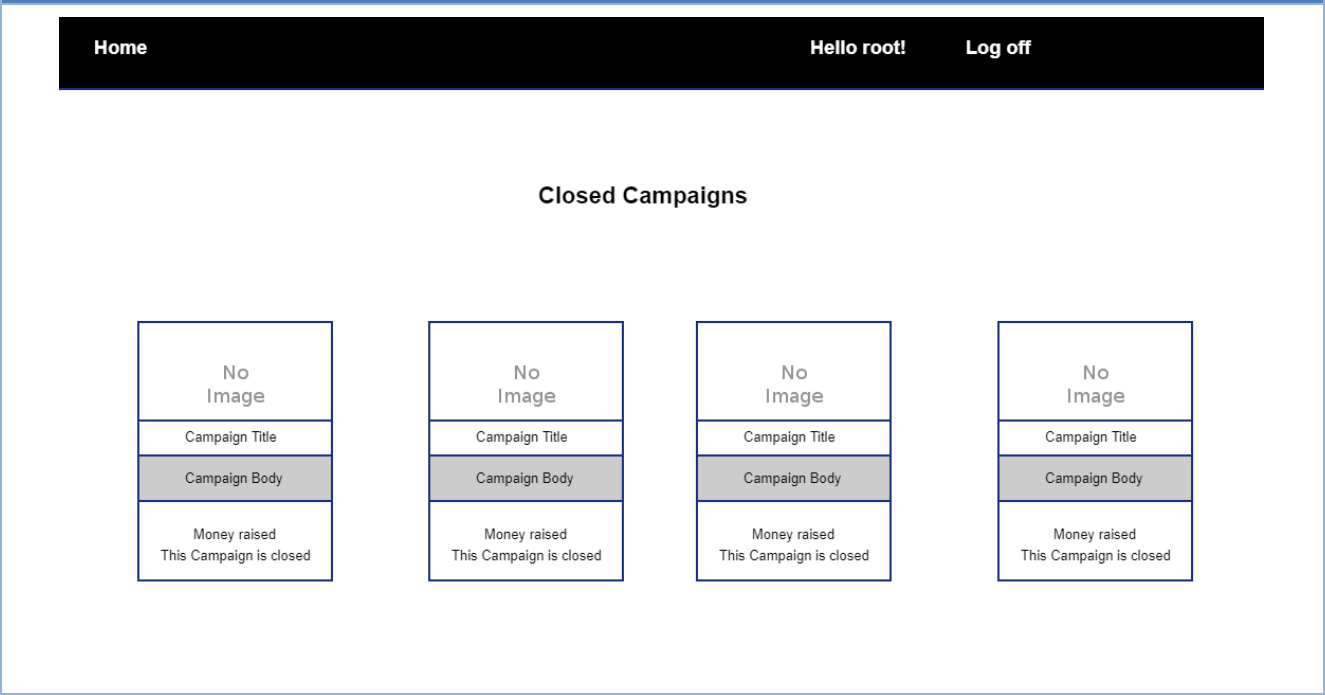
6. As a User, I want to view the campaigns that have ended so that I can see what campaigns have been created in the past.

Use Case: User to View Close Campaigns		ID: #
Stakeholders and Goals:	User – want to view past campaigns	
Description:	A User wants to view past campaigns that have ended.	
Actors:	User	
Pre-Condition:	User must be logged in	
Post-Condition:	User viewed past campaigns	
Trigger:	User want to view past campaigns	
<b>Normal Flow:</b> <div><div>1. The User clicks on the “Campaigns” dropdown list.</div><div>2. The system shows the dropdown list.</div><div>3. The User clicks on the “Closed Campaigns” button.</div><div>4. The system redirects to the closed campaigns page.</div><div>5. End.</div></div>		
Sub-Flows:	None	
Alternative/Exceptional Flows: None		

Sequence Diagram: User to View Close Campaigns



Wireframe: User to View Close Campaigns

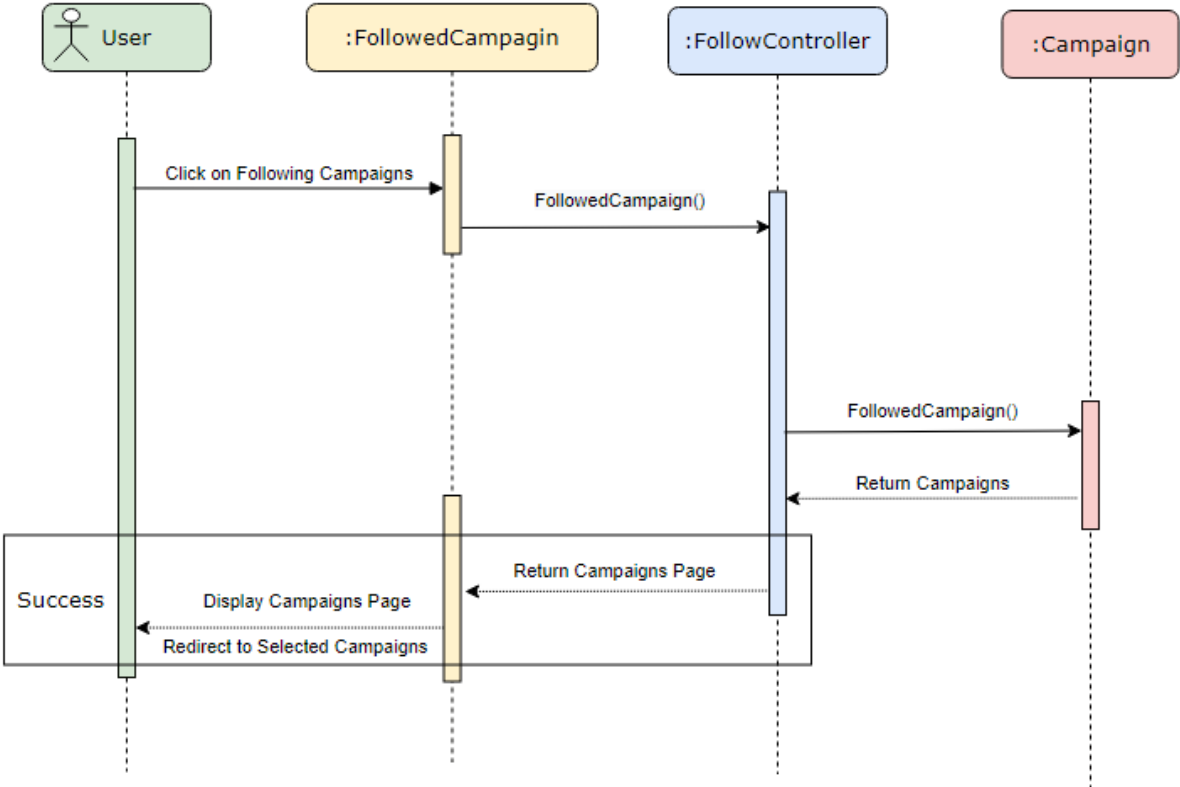


## Project Requirement Documentation

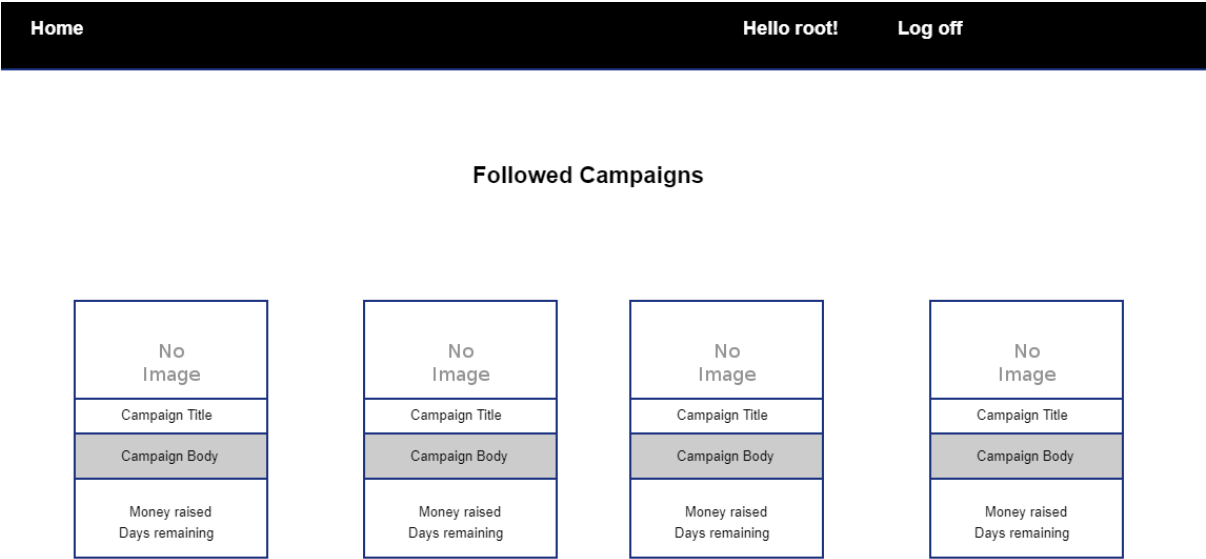
7. As a User, I want to be able to view the campaigns I followed so that I can keep track of them easily.

Use Case: User to View Followed Campaigns		ID: #
Stakeholders and Goals:	User – want to keep track of followed campaigns	
Description:	A User wants to view followed campaigns to keep track of them easily.	
Actors:	User	
Pre-Condition:	User must be logged in	
Post-Condition:	User viewed followed campaigns	
Trigger:	User want to view followed campaigns to keep track easily.	
Normal Flow: <ul style="list-style-type: none"><li>1. The User clicks on the username dropdown list.</li><li>2. The system displays the dropdown list.</li><li>3. The User clicks on the “Following Campaigns” button.</li><li>4. The system redirects the user to following campaigns pages.</li><li>5. End.</li></ul>		
Sub-Flows:	None	
Alternative/Exceptional Flows: None		

Sequence Diagram: User to View Followed Campaigns



Wireframe: User to View Followed Campaigns

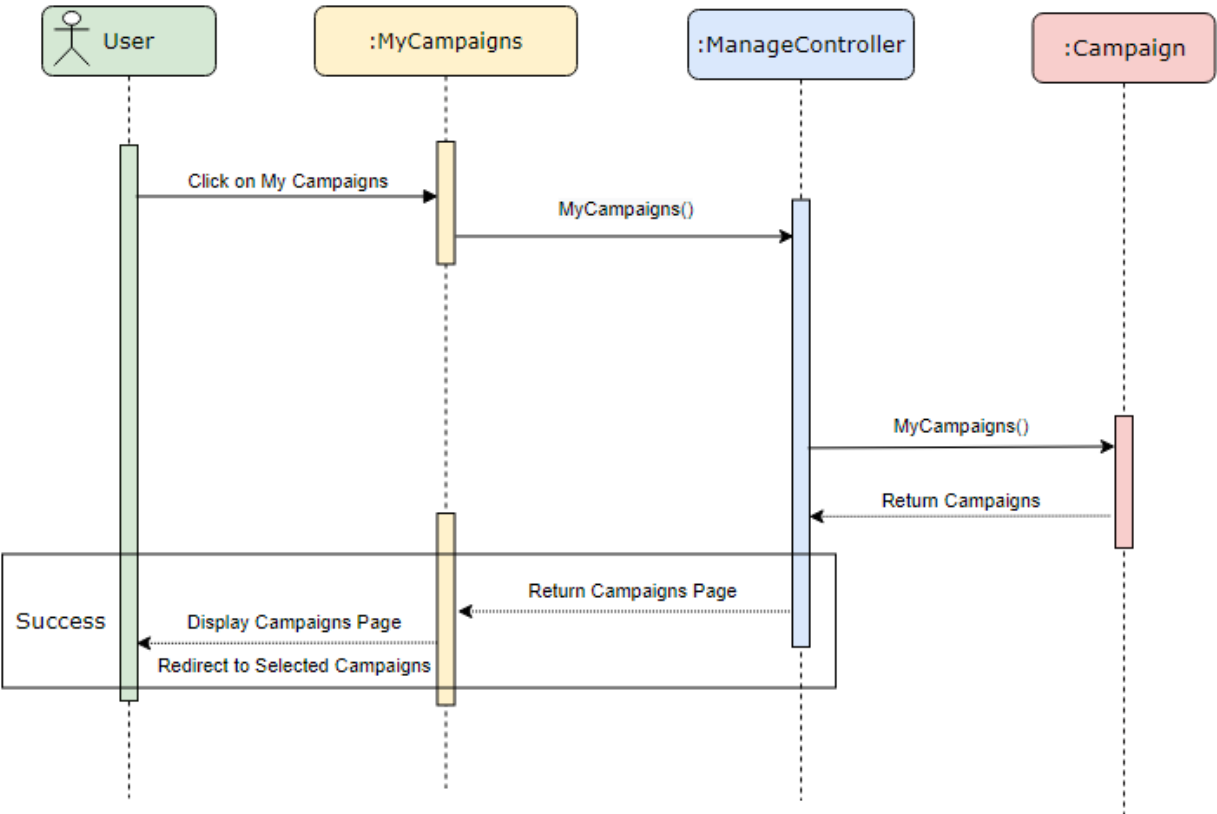


## Project Requirement Documentation

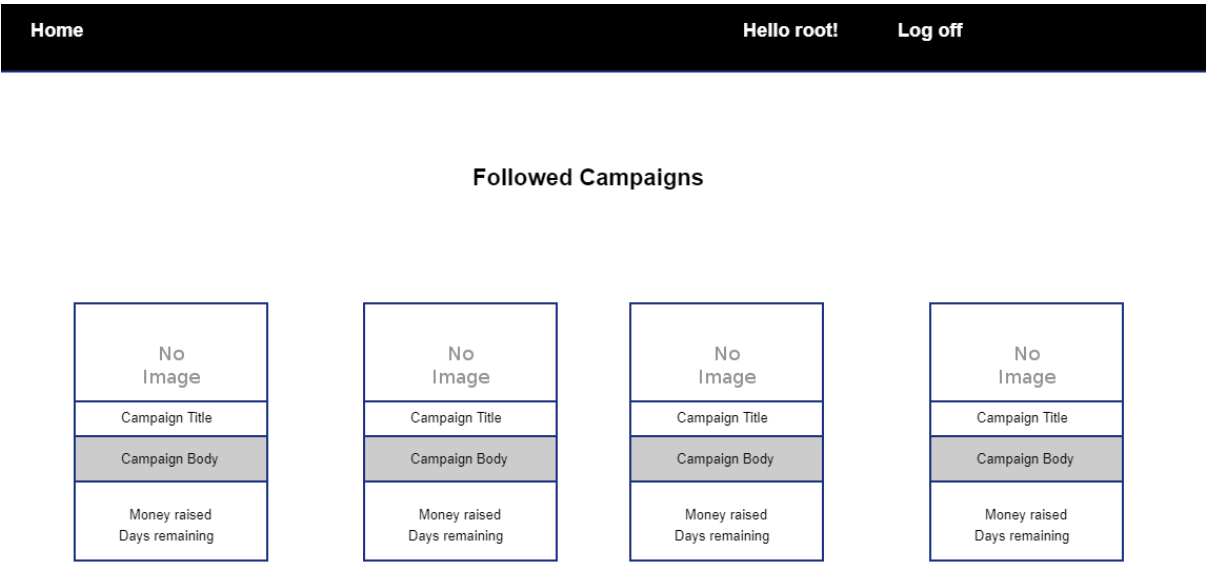
8. As a User, I want to be able to view the campaigns I have created so that I can keep track of them easily.

Use Case: User to View Created Campaigns		ID: #
Stakeholders and Goals:	User – wants to keep track of campaigns created by themselves	
Description:	A User want to view campaigns created to keep track of them easily.	
Actors:	User	
Pre-Condition:	User must be logged in	
Post-Condition:	User viewed created campaigns	
Trigger:	User want to view campaigns created to keep track easily.	
Normal Flow: <ol style="list-style-type: none"><li>1. The User clicks on the username dropdown list.</li><li>2. The system displays the dropdown list.</li><li>3. The User clicks on the “My Campaigns” button.</li><li>4. The system redirects the user to created campaigns pages.</li><li>5. End.</li></ol>		
Sub-Flows:	None	
Alternative/Exceptional Flows: <ol style="list-style-type: none"><li>4. Created Campaign not found: The system redirects to an empty page of created campaigns.</li></ol>		

Sequence Diagram: User to View Created Campaigns



Wireframe: User to View Created Campaigns

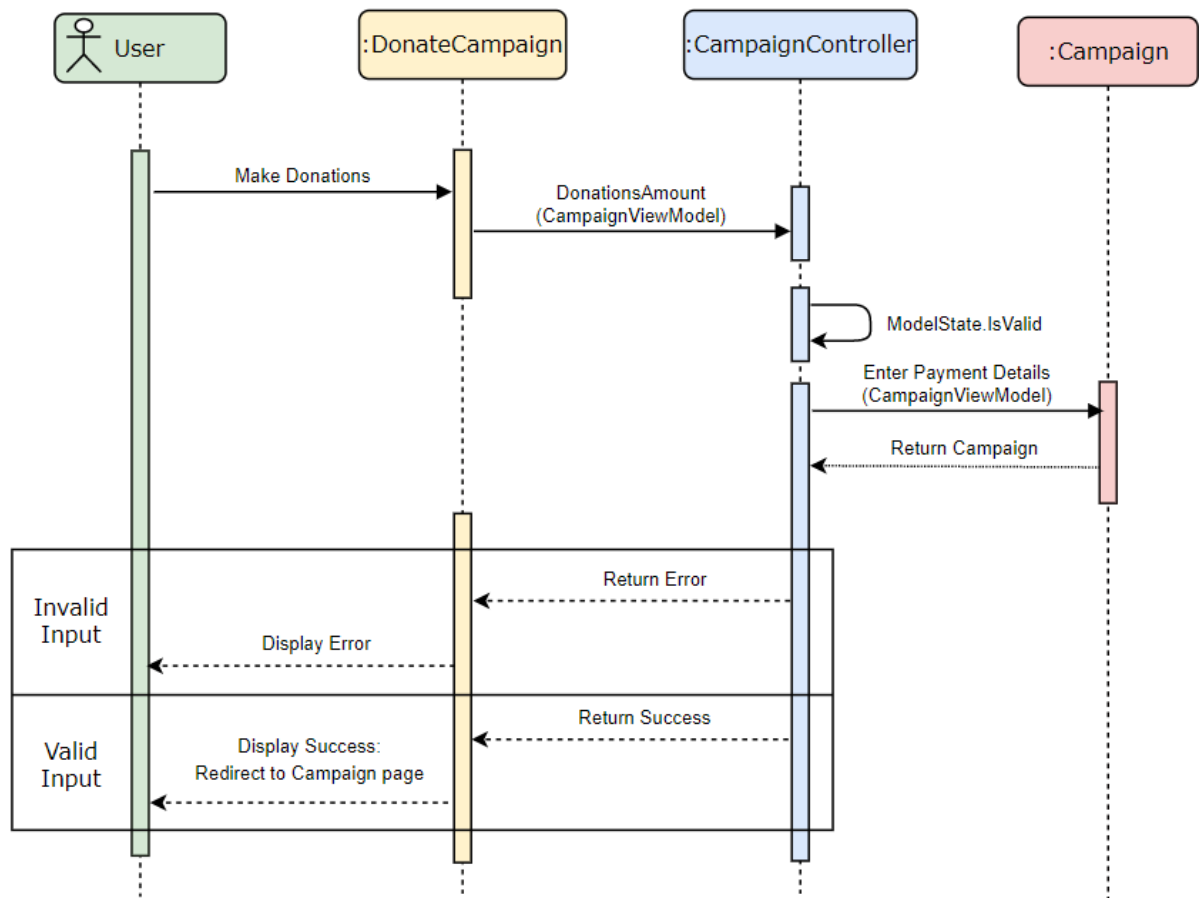


# Project Requirement Documentation

9. As a User, I want to donate money through a payment platform on the website so that I can support the campaigns.

Use Case: User to Make Donation		ID: #
Stakeholders and Goals:	User - wants to donate money to support campaigns.	
Description:	A User wants support campaigns by donating money to them through the platform.	
Actors:	User	
Pre-Condition:	User must be logged in	
Post-Condition:	Users donated money for the campaigns.	
Trigger:	Users want to donate money.	
Normal Flow: <ol style="list-style-type: none"><li>1. The User clicks on a campaign he wants to support.</li><li>2. The system redirects the user to the campaign details page.</li><li>3. The User clicks on the “Donate” button.</li><li>4. The system redirects the user to the payment page.</li><li>5. The User fills in the payment details and clicks on the “Checkout” button.</li><li>6. The system redirects the user to the Stripe payment page to fill in his card details and clicks on the “Donate” button.</li><li>7. The system redirects the user back to the campaign main page after payment.</li><li>8. End.</li></ol>		
Sub-Flows:	None	
Alternative/Exceptional Flows: None		

Sequence Diagram: User to Make Donation



Wireframe: User to Make Donation

[Home](#)

Hello root! Log off

Enter your donation amount:

SGD\$00.00

Donate Now

Campaign Title

265 x 194

\$1000 Raised of \$5000

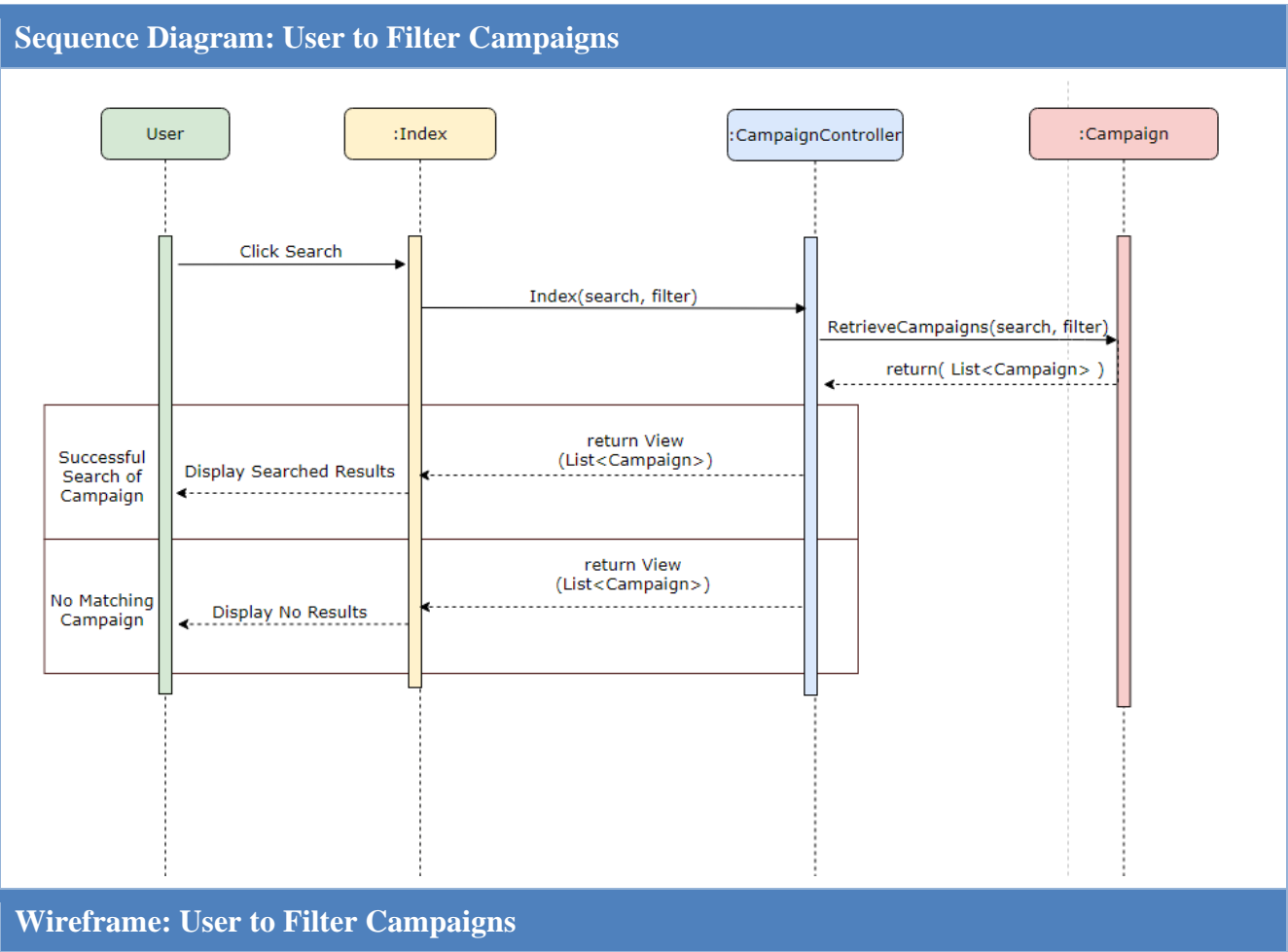
Organiser



# Project Requirement Documentation

10. As a User, I wish to filter through the campaigns so that I can view campaigns that are relevant to a certain tag.

Use Case: User to Filter Campaigns		ID: #
Stakeholders and Goals:	User - wants to filter campaigns through certain tags.	
Description:	A User wants to filter campaigns by different tags to have a better view of the list of campaigns.	
Actors:	User	
Pre-Condition:	User must be logged in	
Post-Condition:	Campaigns are sorted according to the tag.	
Trigger:	Users want to sort the campaigns.	
Normal Flow: <ol style="list-style-type: none"><li>1. The User clicks on the “All Category” button at the Ongoing Campaign page.</li><li>2. The system displays the dropdown list of tags.</li><li>3. The User selects on the tag he wants and clicks on the “Search” button.</li><li>4. The sorted campaign list is displayed on the platform.</li><li>5. End.</li></ol>		
Sub-Flows:	None	
Alternative/Exceptional Flows: None		



# Project Requirement Documentation

[Home](#)[Hello root!](#)[Log off](#)

No Image

Campaign Title

Campaign Body

Money raised  
Days remaining

No Image

Campaign Title

Campaign Body

Money raised  
Days remaining

No Image

Campaign Title

Campaign Body

Money raised  
Days remaining

No Image

Campaign Title

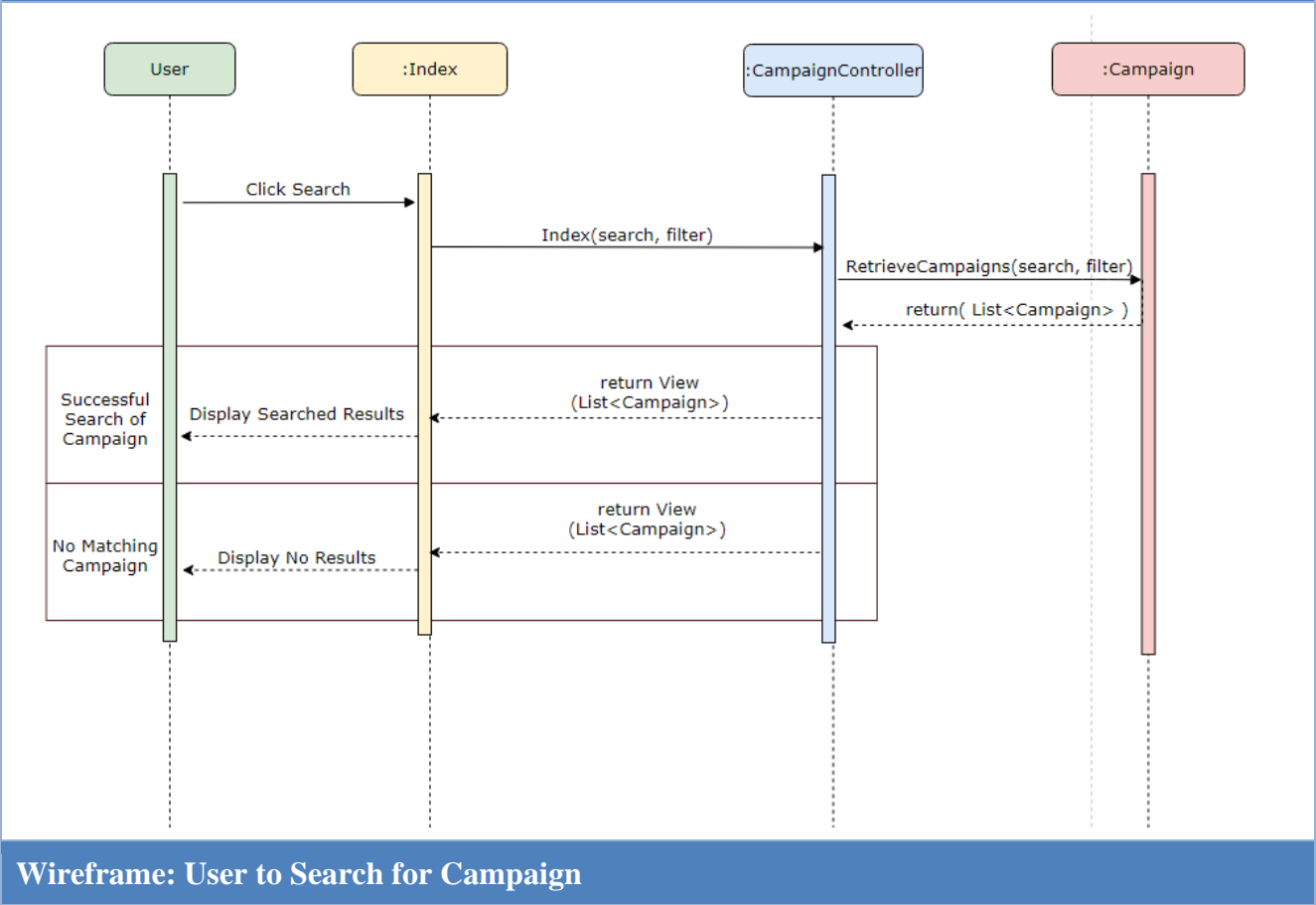
Campaign Body

Money raised  
Days remaining

11. As a User, I want to be able to search for a specific campaign so that I am able to find the campaign that I want to support.

Use Case: User to Search for Campaign		ID: #
Stakeholders and Goals:	User - wants to search for a specific campaign	
Description:	A User wants to search for a specific campaign on the platform through the search engine.	
Actors:	User	
Pre-Condition:	User must be logged in	
Post-Condition:	The specific campaign is shown.	
Trigger:	Users want to search for a campaign.	
Normal Flow:		
1. The User enters the keyword at the search bar in the Ongoing Campaign page and clicks on the “Search” button.		
2. The campaigns that are related to the keyword are displayed on the platform.		
3. End.		
Sub-Flows:	None	
Alternative/Exceptional Flows:		
4a Campaign is not found: The system displays that the campaign is not found.		

Sequence Diagram: User to Search for Campaign



Wireframe: User to Search for Campaign

# Project Requirement Documentation

[Home](#)[Hello root!](#)[Log off](#)

No Image

Campaign Title

Campaign Body

Money raised  
Days remaining

No Image

Campaign Title

Campaign Body

Money raised  
Days remaining

No Image

Campaign Title

Campaign Body

Money raised  
Days remaining

No Image

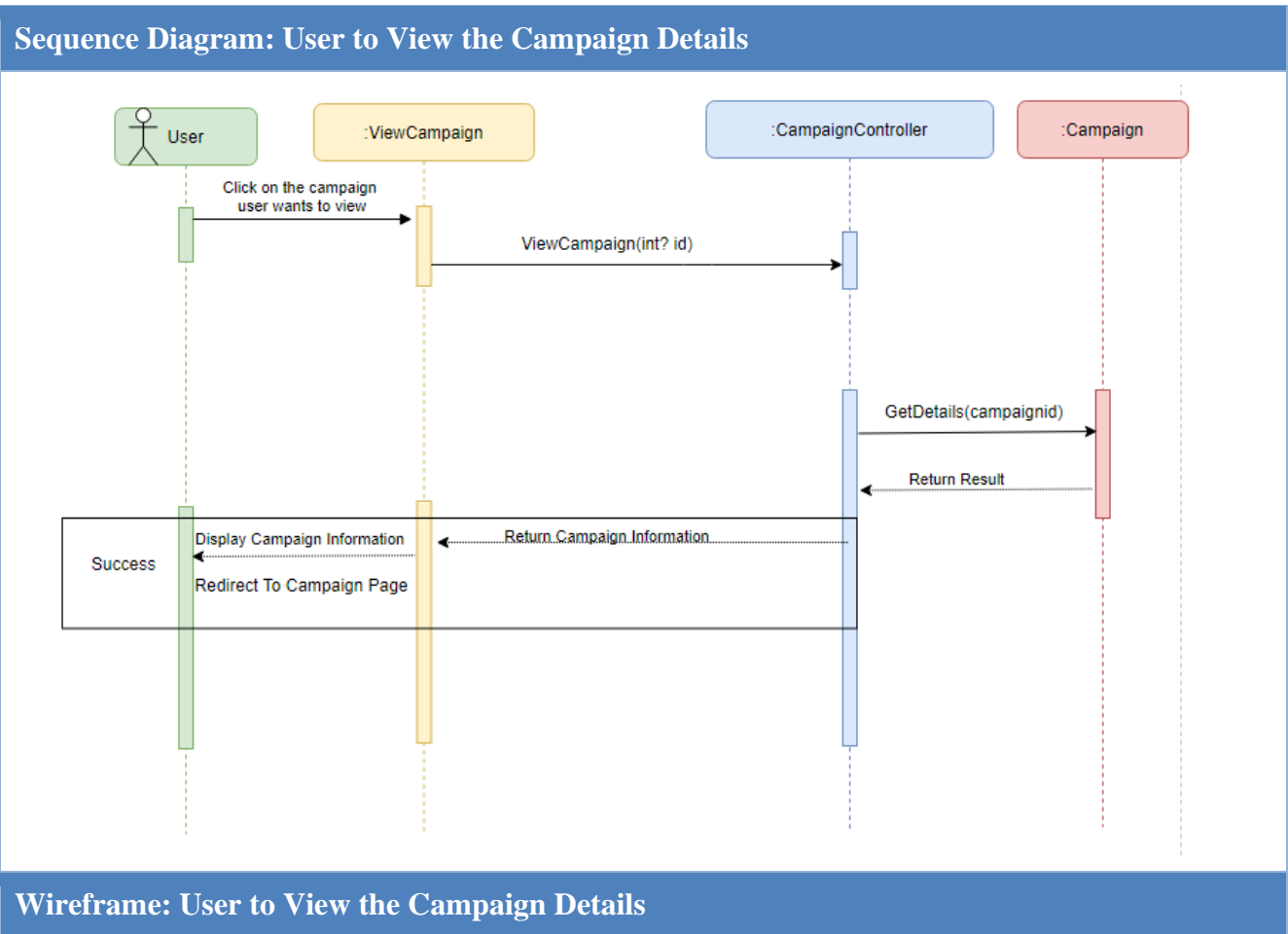
Campaign Title

Campaign Body

Money raised  
Days remaining

12. As a User, I want to see the full information about a campaign so that I'm able to understand what the campaign is about.

Use Case: User to View the Campaign Details		ID: #
Stakeholders and Goals:	User - wants to see event details	
Description:	A User wants to view the details of a campaign to know more about it.	
Actors:	User	
Pre-Condition:	User must be logged in	
Post-Condition:	The campaign details are shown.	
Trigger:	Users want to view event details.	
<b>Normal Flow:</b> <div>1. The User clicks on the campaign he wants to view on the Ongoing Campaigns page.</div> <div>2. The System redirects the user to the campaign detailed page.</div> <div>3. End.</div>		
Sub-Flows:	None	
<b>Alternative/Exceptional Flows:</b> None		



# Project Requirement Documentation

[Home](#)  Hello root!  [Log off](#)

### Campaign Title

No Image

root is organising this event

Campaign Body

No Image No Image No Image No Image No Image

Updates

Comments

[Report Campaign](#)

[Comment](#)

\$0 Raised out of \$100

10 Days Remaining

0

Donors

0

Shares

0

Followers

[Follow](#)

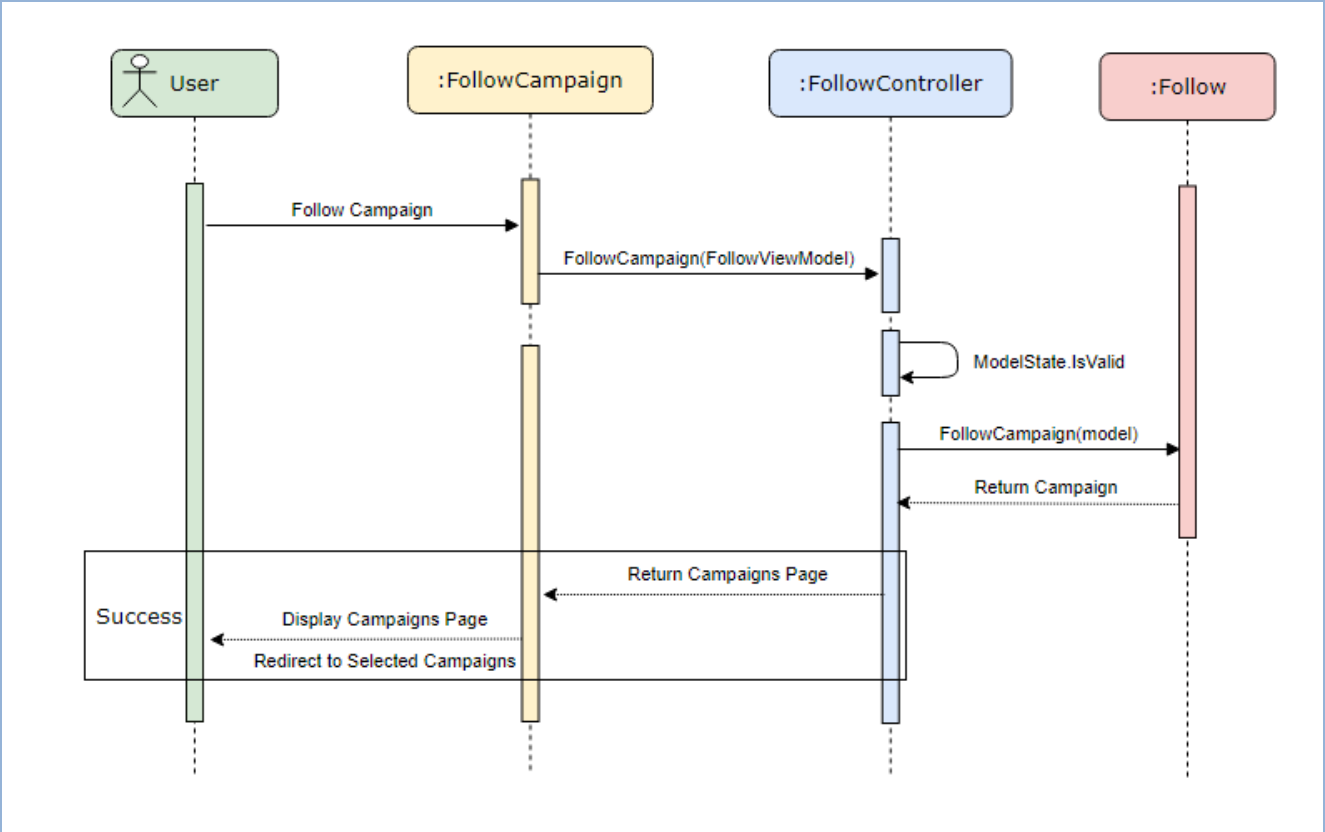
[Donate](#)

[Share](#)

13. As a User, I wish to subscribe to a campaign so that I can stay updated about the campaigns I'm interested in.

Use Case: User to Subscribe to a Campaign		ID: #
Stakeholders and Goals:	User - wants to subscribe to a campaign	
Description:	A User wants to subscribe to a campaign they are interested in.	
Actors:	User	
Pre-Condition:	User must be logged in	
Post-Condition:	Users can subscribe to the campaign.	
Trigger:	Users want to subscribe to a campaign	
Normal Flow:		
1. The User clicks on the campaign he wants to view on the Ongoing Campaigns page.		
2. The System redirects the user to the campaign detailed page.		
3. End.		
Sub-Flows:	None	
Alternative/Exceptional Flows:		
1a. No “Follow” button available in the campaign detailed page: the user needs to login to the website.		

Sequence Diagram: User to Subscribe to a Campaign



Wireframe: User to Subscribe to a Campaign



# Project Requirement Documentation

[Home](#)  Hello root!  [Log off](#)

### Campaign Title

No Image

root is organising this event

Campaign Body

No Image No Image No Image No Image No Image

Updates

Comments

[Report Campaign](#)  [Comment](#)

\$0 Raised out of \$100

10 Days Remaining

0 Donors

0 Shares

0 Followers

[Follow](#)

[Donate](#)

[Share](#)

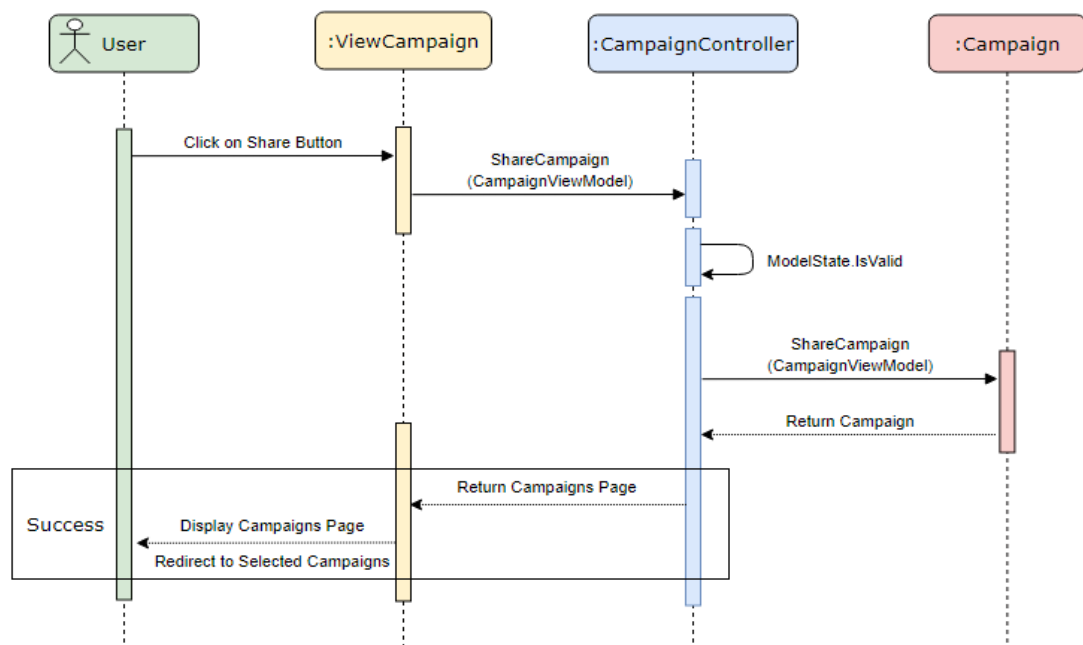
14. As a User, I want to be able to share the campaign to social media so that I can increase awareness.

Use Case: User to Share a Campaign		ID: #
Stakeholders and Goals:	User - wants to share a campaign	
Description:	A User wants to share a campaign on social media.	
Actors:	User	
Pre-Condition:	Use must be logged in	
Post-Condition:	Campaign details are shared on social media	
Trigger:	Users want to share a campaign to social media.	
<b>Normal Flow:</b> <ol style="list-style-type: none"><li>1. The User clicks on the “Share” button on the campaign detailed page.</li><li>2. The system shows a pop-up page that allows the user to choose the social media platform.</li><li>3. The User selects on one social media.</li><li>4. The system redirects the user to the social media page to share the campaign.</li><li>5. The User shares it on his social media.</li><li>6. The system redirects the user back to the campaign detailed page.</li><li>7. End.</li></ol>		
Sub-Flows:	None	

## Alternative/Exceptional Flows:

2a. Social media not logged in: The user needs to login to his social media account to share the campaign.

## Sequence Diagram: User to Share a Campaign



## Wireframe: User to Share a Campaign

# Project Requirement Documentation

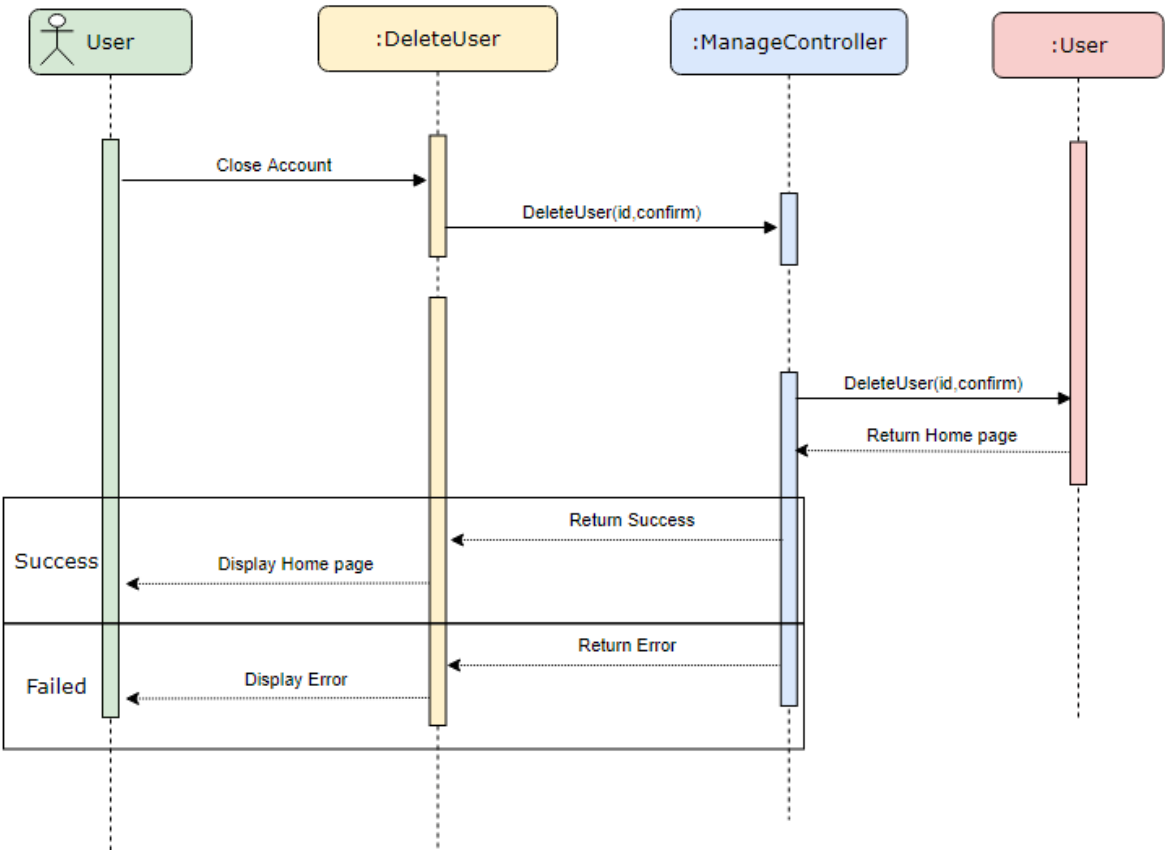
15. As a User, I want to be able to close my account so that I am no longer associated with the platform.

Use Case: User to Close Account		ID: #
Stakeholders and Goals:	User - wants to close the account	
Description:	A User wants to close his/her account for the crowdfunding platform.	
Actors:	User	
Pre-Condition:	User must be logged in User must not have any ongoing campaigns	
Post-Condition:	User closes his/her account successfully.	
Trigger:	User want to close the account	
Normal Flow: <ol style="list-style-type: none"><li>1. The User clicks on the “Close Account” button on the Edit Profile page.</li><li>2. The system redirects the user to the close account form.</li><li>3. The User enters his email and clicks the “Delete” button.</li><li>4. The System redirects to the login page.</li><li>5. End.</li></ol>		

## Project Requirement Documentation

<b>Sub-Flows:</b>	None
<b>Alternative/Exceptional Flows:</b> 3a. User not able to close account as he/she have ongoing campaigns.	

### Sequence Diagram: User to Close Account



Wireframe: User to Close Account

Home

Hello root!Log off

Are you sure you want to close your account?

Note: This process is irreversible

Please enter your email address to close your account

Close

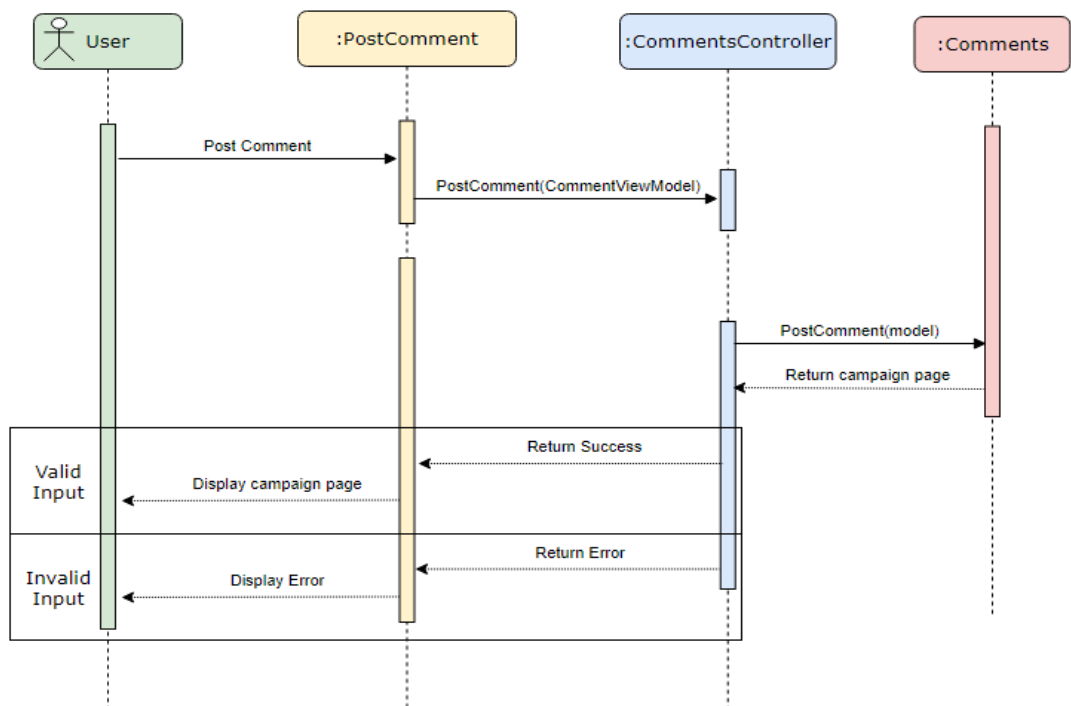
16. As a User, I want to be able to leave comments so that I can share my opinion on the platform.

## Project Requirement Documentation

Use Case: User to Leave Comments		ID: #
Stakeholders and Goals:	User - wants to leave comments	
Description:	A User wants to leave comments on the campaign page.	
Actors:	User	
Pre-Condition:	User must be logged in	
Post-Condition:	Comments successfully leave on the campaign page.	
Trigger:	Users want to leave a comment	
Normal Flow: <ol style="list-style-type: none"><li>1. The User enters his comments in the comment text field in the campaign detailed page and clicks on the “Add Comment” button.</li><li>2. The system redirects the user back to the campaign detailed page with the comments shown.</li><li>3. End.</li></ol>		
Sub-Flows:	None	
Alternative/Exceptional Flows: 2a. The user is not able to post comments: the user has to write some words in the comment textbox.		

### Sequence Diagram: User to Leave Comments

# Project Requirement Documentation



## Wireframe: User to Leave Comments

[Home](#)

Hello root!  Log off

Campaign Title

No Image

root is organising this event

Campaign Body

No ImageNo ImageNo ImageNo ImageNo Image

Updates

Comments

[Report Campaign](#)

Comment

\$0 Raised out of \$100

10 Days Remaining

0Donors

0Shares

0Followers

Follow

Donate

Share

17. As a User, I wish to email a moderator or write a support ticket so that I the moderator can help me on an existing issue that I currently have.

Page 79 | 94

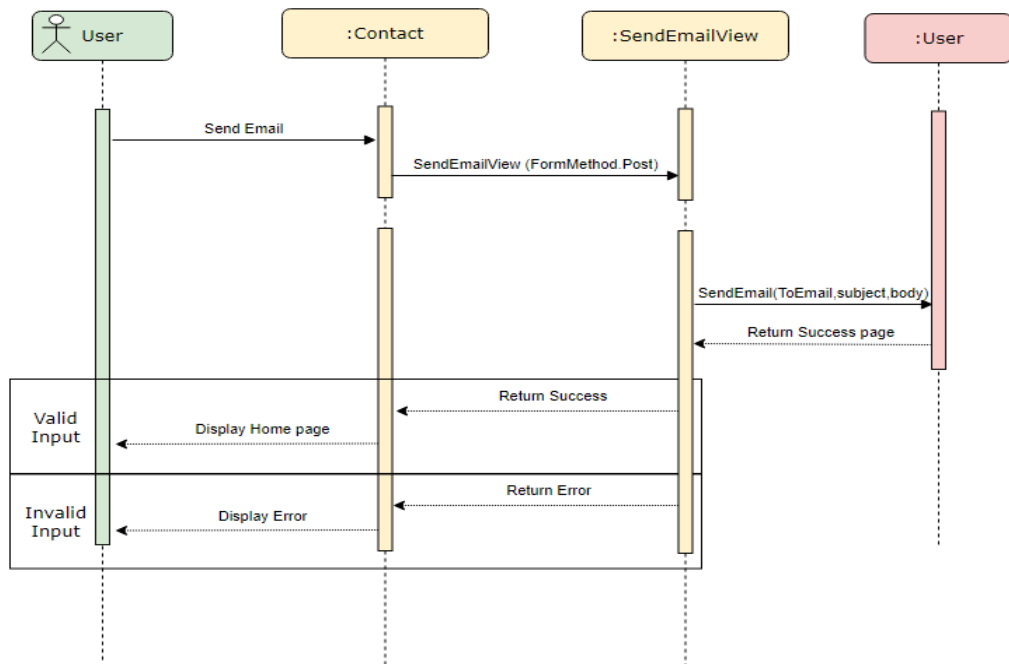
## Project Requirement Documentation

Use Case: User to Email/Write Support Ticket		ID: #
Stakeholders and Goals:	User - want to submit a support ticket	
Description:	A User wants to report an existing issue.	
Actors:	User	
Pre-Condition:	User must be logged in	
Post-Condition:	User’s support ticket is submitted.	
Trigger:	Users want to report an issue.	
Normal Flow: <ul style="list-style-type: none"><li>1. The User clicks on the “Contact Us” button.</li><li>2. The system displays the support page.</li><li>3. The User fills in the support ticket form and clicks the “Send” button.</li><li>4. The system redirects the user back to the homepage.</li><li>5. End.</li></ul>		
Sub-Flows:	None	
Alternative/Exceptional Flows: 3a. Empty fields: The system displays an error message for each of the empty fields the user has to complete the fields.		

### Sequence Diagram: User to Email/Write Support Ticket



# Project Requirement Documentation



## Wireframe: User to Email/Write Support Ticket

**Home****Hello root!****Log off**

### Send Support Ticket

Your Email

Subject

Body

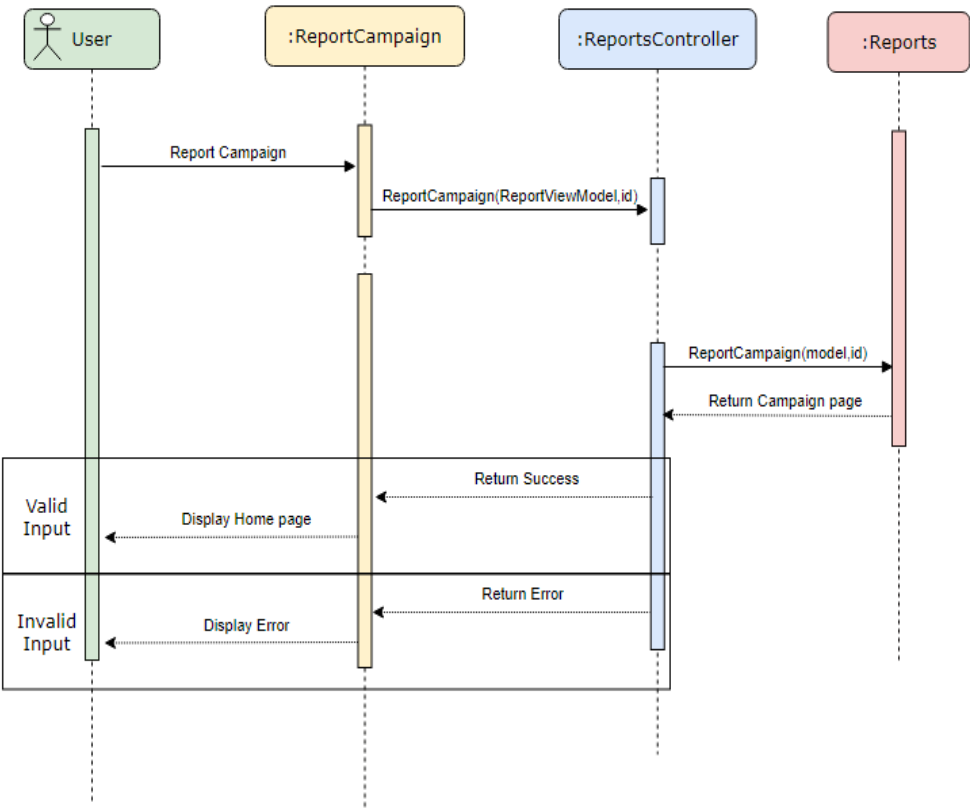
Send

18. As a User, I want to report against a campaign if I find that this campaign inadequate or suspicious.

## Project Requirement Documentation

Use Case: User to Report Campaigns		ID: #
Stakeholders and Goals:	User - want to report an ongoing campaign	
Description:	A User wants to report a campaign on the platform.	
Actors:	User	
Pre-Condition:	User must be logged in	
Post-Condition:	The report is submitted and waiting to be investigated.	
Trigger:	Users want to report a campaign.	
Normal Flow:		
<div><div>1.</div><div>The User clicks on the “Report campaign” button on the detailed campaign page.</div></div> <div><div>2.</div><div>The system displays the report page.</div></div> <div><div>3.</div><div>The User fills in the report form and clicks the “Report” button.</div></div> <div><div>4.</div><div>The system displayed a message showing that the report has been submitted and redirects the user back to the homepage.</div></div> <div><div>5.</div><div>End.</div></div>		
Sub-Flows:	None	
Alternative/Exceptional Flows:		
3a. Empty fields: The system displays an error message for each of the empty fields the user has to complete the fields.		

### Sequence Diagram: User to Report Campaigns



Wireframe: User to Report Campaigns

Home

Hello root!

Log off

Report this Campaign

Reason

Select a Reason

▼

Body

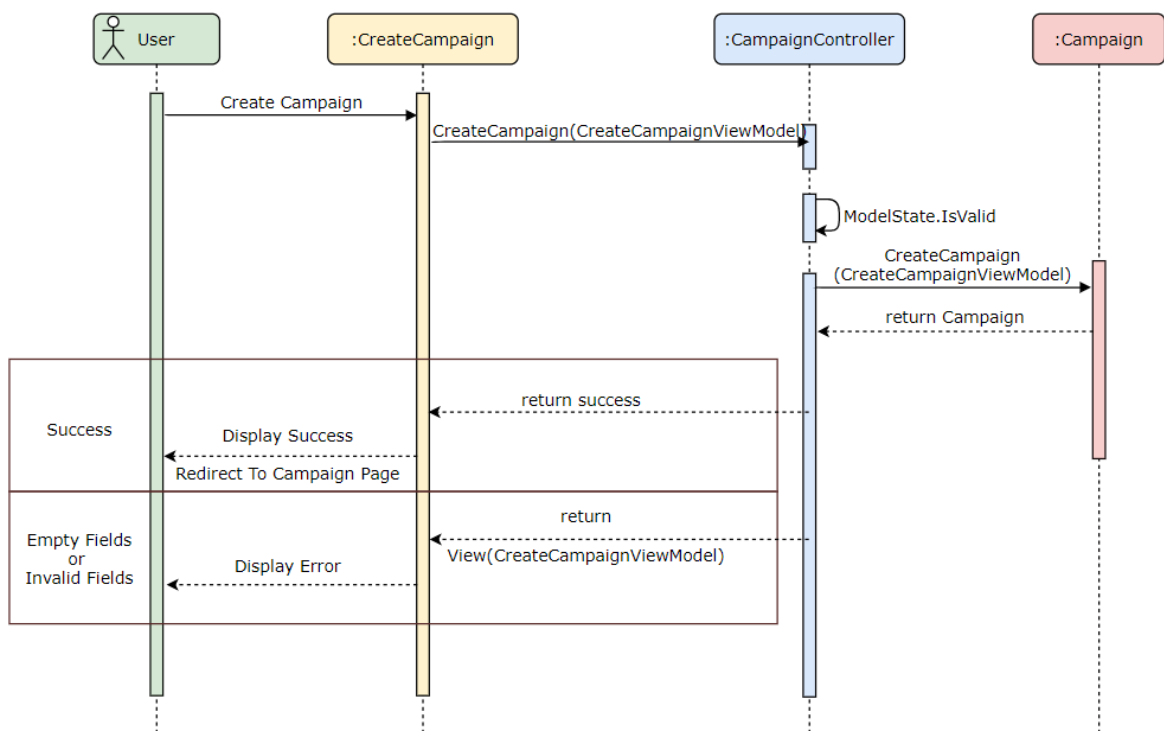
Report

# Project Requirement Documentation

19. As a User, I want to be able to create a campaign so that I seek financial assistance from users that are willing to support my cause.

Use Case: User to Create a Campaign		ID: #
Stakeholders and Goals:	User - wants to create a campaign	
Description:	A User wants to host a campaign on the crowdfunding platform	
Actors:	User	
Pre-Condition:	User must be logged in	
Post-Condition:	Details of campaign submitted to be reviewed	
Trigger:	User want to create campaign	
Normal Flow: <ul style="list-style-type: none"><li>1. The User clicks on the “Start a Campaign” button.</li><li>2. The system redirects the User to the create campaign page.</li><li>3. The User fills in all the required fields in the page.</li><li>4. The User clicks on the “Submit” button.</li><li>5. The system redirects to the detailed campaign page of the created campaign.</li><li>6. End.</li></ul>		
Sub-Flows:	None	
Alternative/Exceptional Flows: 4a. Fields are empty/invalid, return error message		

Sequence Diagram: User to Create a Campaign



Wireframe: User to Create a Campaign

Home

Hello root!

Log off

Create your Campaign

Step 1 of 3

Enter your Goal

SGD

0

Campaign Title

Type

Postal Code

Address

Category

Next

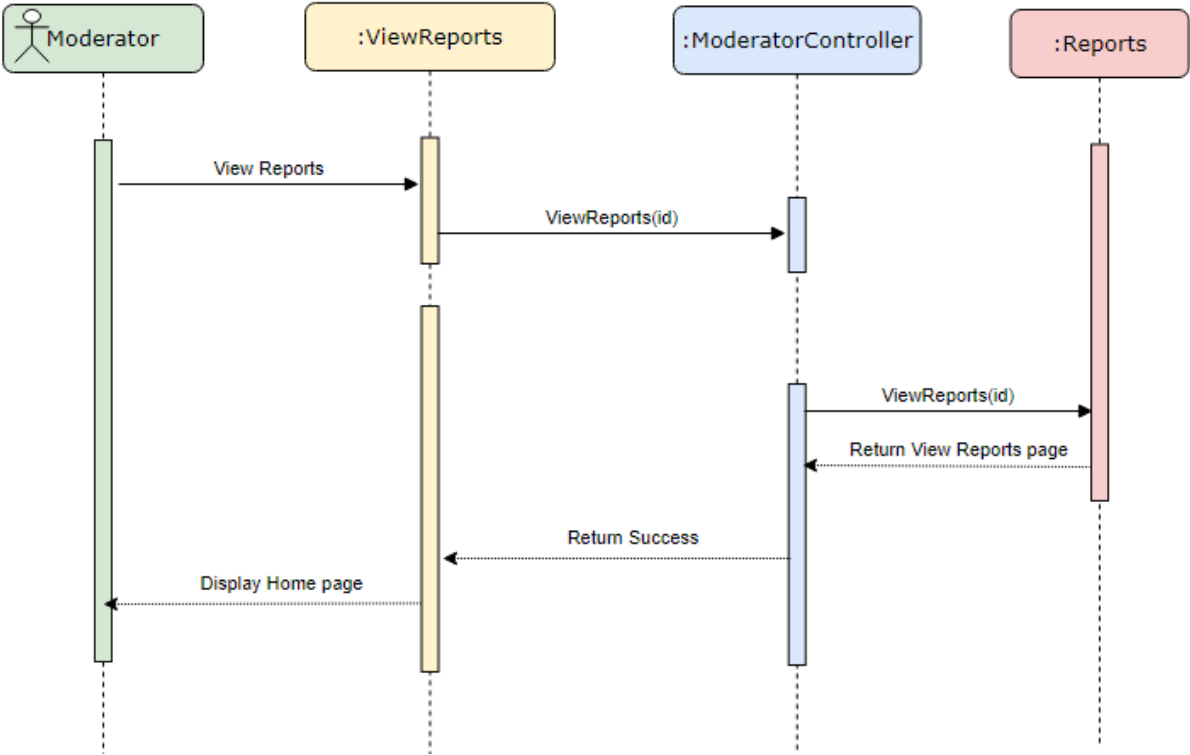
# Project Requirement Documentation

## **Actor: Moderator**

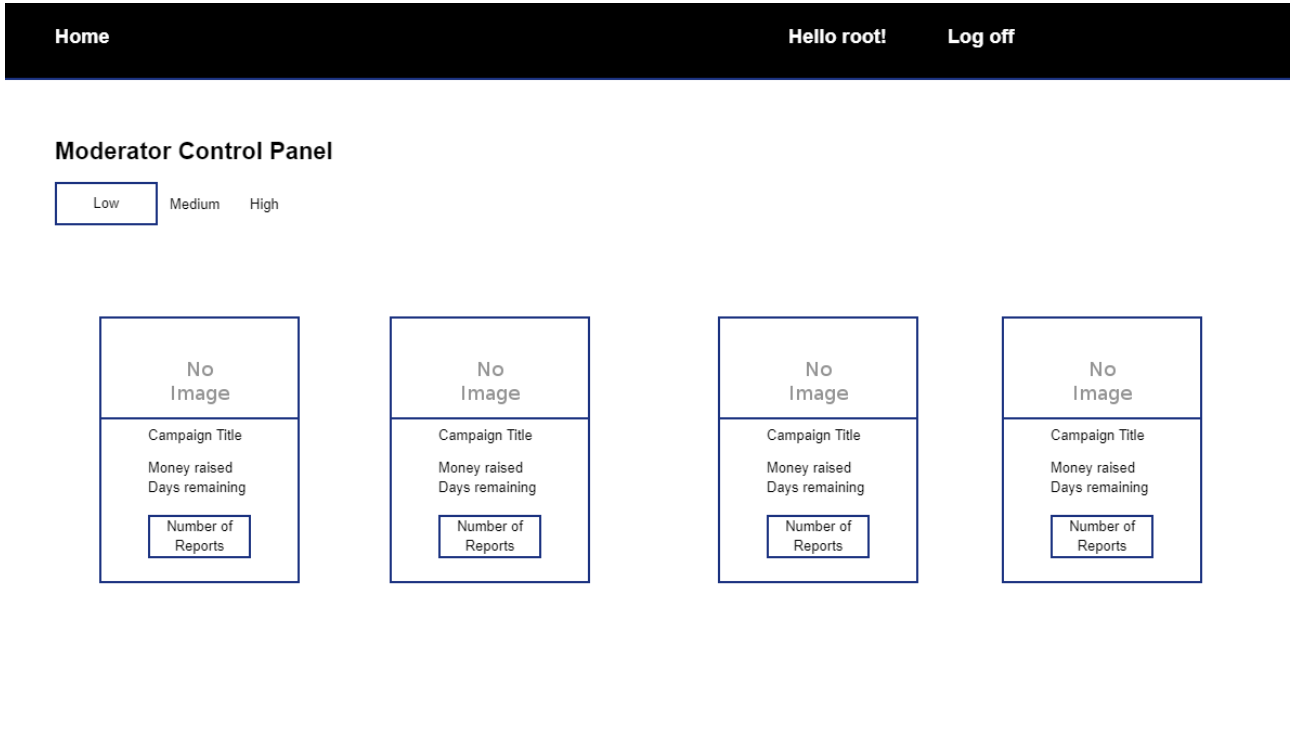
1. As a Moderator, I want to be able to view a list of reports so that I can moderate any fraudulent activities or toxic behaviours.

Use Case: Moderator to View Reports		ID: #
Stakeholders and Goals:	Moderator - view a list of reports	
Description:	A Moderator wants to view a list of reports on the platform to prevent inappropriate behaviours from happening.	
Actors:	Moderator	
Pre-Condition:	Moderator must be logged in	
Post-Condition:	Moderator can view the reports of the platform.	
Trigger:	Moderators want to view a list of reports on the platform.	
<b>Normal Flow:</b> <div><div>1. The Moderator clicks on the “Moderator” button.</div><div>2. The system displays the list of all the campaigns that have been reported.</div><div>3. End.</div></div>		
Sub-Flows:	None	
<b>Alternative/Exceptional Flows:</b> None		

Sequence Diagram: Moderator to View Reports



Wireframe: Moderator to View Reports



## Future Implementations

### *Actor: User*

S/No	Descriptions
1	As a User, I want to be able to donate anonymously so that my identity is kept a secret.
2	As a User, I want to view a list of the campaigns I've donated so that I'm able to see how much I've supported each campaign.
3	As a User, I wish to view a profile of another user so that I can find out information about this user.
4	As a User, I wish to view the FAQ (Frequently-Asked-Questions) so that I can clear my doubts about the platform or how it works.
5	As a User, I want to be able to like a comment so that I am able to show that I sympathise with the person.
6	As a User, I want to be able to edit my campaign so that I can update campaign information if necessary.

### *Actor: Moderator*

S/No	Descriptions
1	As a Moderator, I want to be able to send a request to the User Admin to suspend an account for improper behaviour or fraudulent activity.



## Non-Functional Requirements

### *Platform Requirements*

#### **Usability**

Our platform should be user-friendly and easy to use without an in-built user guide so that users can perform their tasks easily. Users should also be able to run the website on multiple devices concurrently and be able to run it on all types of browsers. The website should also be responsive so that it will be mobile-friendly and improve user experience on mobile devices.

#### **Performance**

Our platform should always be able to define how fast it is able to respond to a user's action not more than three seconds. This is to ensure the effectiveness and efficiency of the system.

#### **Supportability**

Our platform should be capable enough to handle multiple users using the system at once without crashing. The database of the software should be capable enough to store a large number of users without fail.

#### **Reliability**

Our online platform should always be up for service. Thus, we should always try to ensure that our service's minimum acceptable uptime is as close to 99.99% as possible and on the other hand keeping the maximum acceptable downtime as low as possible.

#### **Maintainability**

Our platform should be easily maintained and allow extension of functionality to this platform. The code written should be neat, structured and well commented with the purpose of the function. Naming for files, classes, functions and variables should be clearly and relevantly. Having any other developer to review the code for maintenance should be easy as the code should be readable to any other developers. The final product should also be extensible and easily modularized in future.

#### **Recoverability**

Our platform should ensure that all the operation performed on our website is described in a log before it is performed on your databases. This is done in order to ensure that an operation can be recovered in the event of an untimely platform failure. Backup of the database should also be done in an acceptable interval to ensure that the data is always ready to be recovered in any accident.

#### **Security**

User details such as password, payment information, emails and other personal information should be hashed and encrypted while keeping it safely in the database. Our platform should also try to keep as little information as possible to minimize the damage to the user if any data loss happened. The online platform should also be using secured SSL/TLS protocol and others to ensure that all the activities of users will be secured. Our platform will also not give unauthorized personnel access to important information. The platform will lock users out for

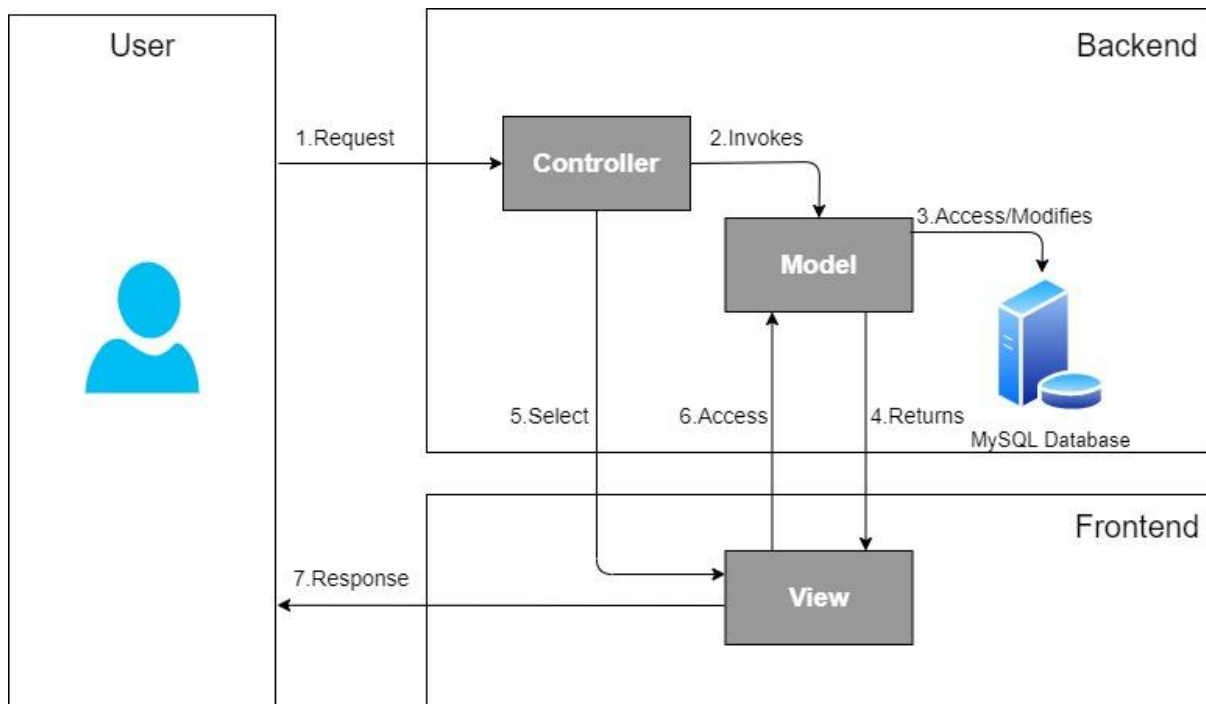
## Project Requirement Documentation

a set period of time if they failed to login within five tries and also to ensure that the user password is strong, it will require registering users to input passwords containing symbols, numbers and letters containing both uppercase and lowercase characters. Furthermore, we should practice all the good practices in security such as the principle of least privilege, having the SSL certificate, installing scanning and monitoring tools, getting a website firewall on our system. All these could help in preventing threats such as SQL injection, cross-site scripting (XSS), Dos/DDoS attack etc.

## Design Specification

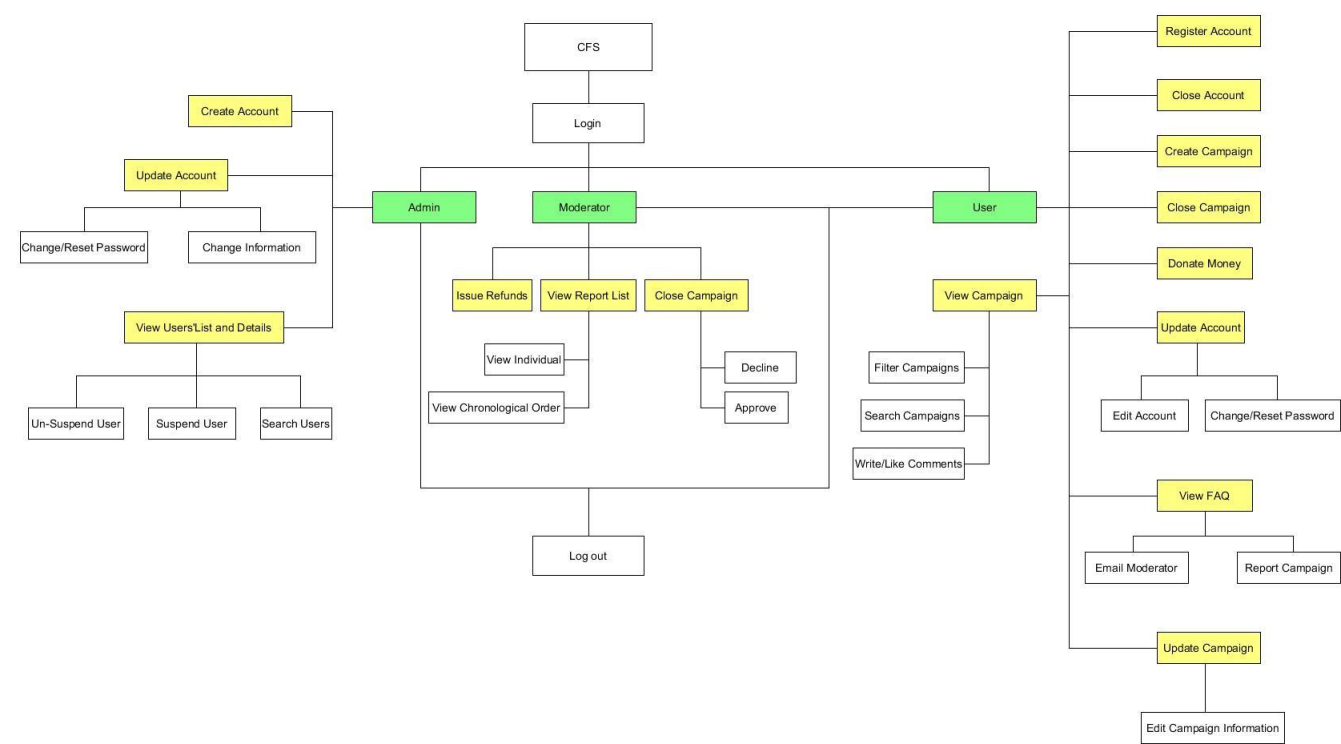
### Architecture Diagram

For the Architecture diagram, we are using the MVC framework which comprises the Model, View and Controller for this project. When the user first accesses the site/page, a HTTP request will be sent to the controller. This controller will then invoke the model to access or modify the database. It will then return a view. The controller will then select this view and this view will access the model to retrieve latest data and this view will be returned to the user and displayed as the webpage which is the frontend.

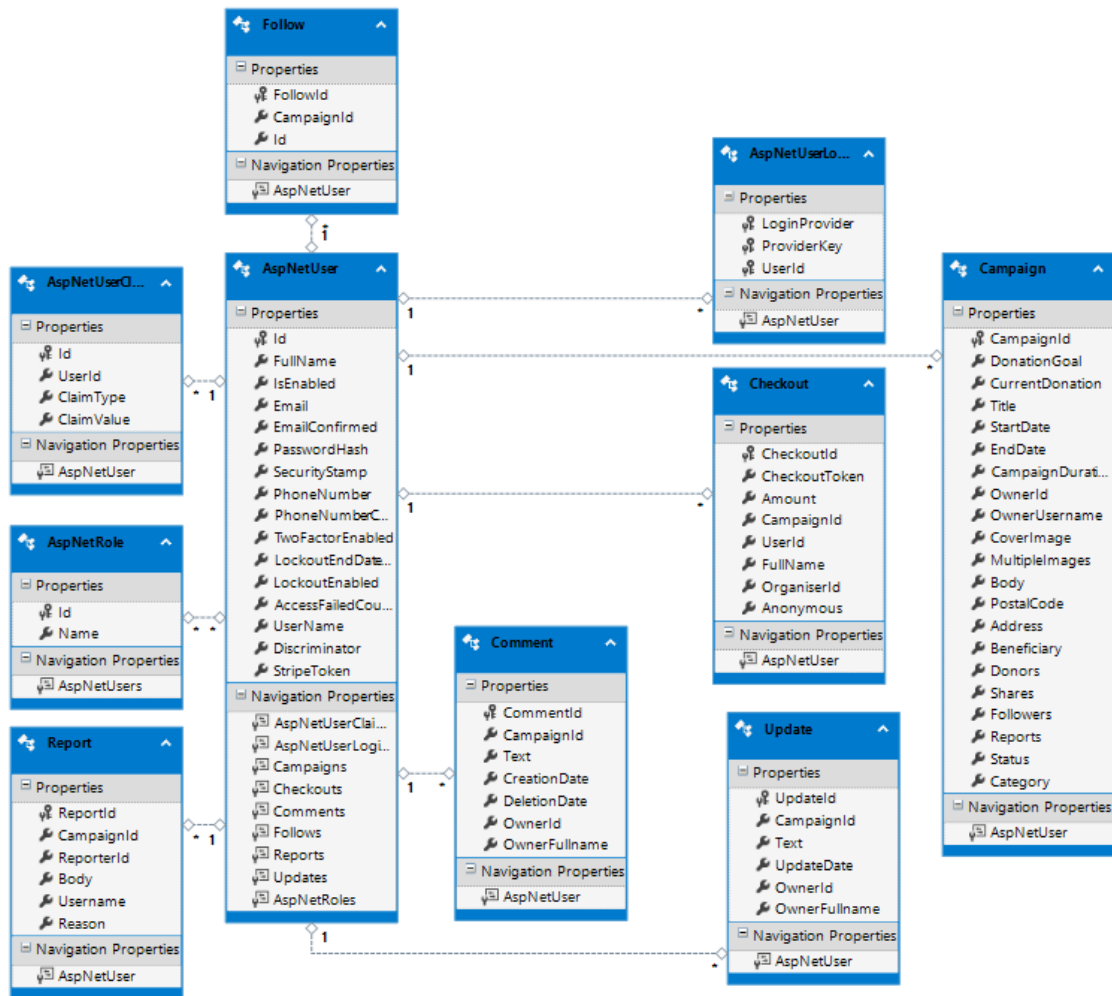


# Project Requirement Documentation

## Hierarchical Diagram



## Database Design



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