**CROWDFUNDING APP FOR EDUCATION**

**A MINI PROJECT REPORT (15CS72C)**

***Submitted by***

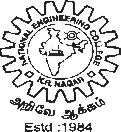
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***In partial fulfillment for the award of the degree of***

***BACHELOR OF ENGINEERING***

***in***

***COMPUTER SCIENCE AND ENGINEERING***



**NATIONAL ENGINEERING COLLEGE**

# (An Autonomous Institution, Affiliated to Anna University – Chennai)

**K.R. NAGAR, KOVILPATTI – 628 503 June 2022**

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# ABSTRACT

The crowd fund raising mainly focuses on providing funding for those who has skills but in need of money to achieve something, it includes highly paid certifications and higher studies this system reduces all paper work was need to be done and also promotes legitimacy by making this as a community. Someone can get fund by providing the details of eligibility criteria they have to do that, one who want to enroll in this forum need to create a account in the forum. Also, there will be a module which enhances donation to the forum from alumni’s and government. All request will be public in forum with an upvote option so a person who is highly skilled and can efficiently use the community will be noticeable with the help of public upvote and also a request with most downvotes will automatically get rejected. A special module will focus on forum scam and forgery by completely verifying the study details provided by them, if someone who tries to scam the forum can be easily found and get banned using this module. A person from community availed for funding for a competition or hackathon must need to submit their result or progress from officials of that event. Also, if they won some money means they can pay back to the forum to maintain stability of fund in community.

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# LIST OF ABBREVIATIONS

|  |  |
| --- | --- |
| **ABBREVIATION** | **FULL FORM** |
| API | Application Programming Interface |
| XML | Extensible Markup Language |
| OS | Operating System |
| GUI | Graphical User Interface |
| SQL | Structured Query Language |
| QR | Quick Response |
| DOS | Disk Operating System |
| APK | Android Package |
| UI | User Interface |
| GB | Giga Byte |
| IDE | Integrated Development Environment |
| JDK | Java Development Kit |
| DBB | Digital Bulletin Board |

**CHAPTER 1**

**INTRODUCTION**

Crowdfunding is now playing a crucial part in the funding system. It has become the most effective way of raising funds for needs or for education. Crowdfunding is a solution to many financial crises such as social causes, charities, events & disaster relief efforts. Thus, implementing crowdfunding in education will be having a better response on students' society. It develops personality as well as a good collaboration between students that encourages humanity in the society. Making awareness about crowdfunding is much easier than other analyzed solutions, once the system has been developed for decent users, we can enable it for further raising of funds.

Online digital wallet inside the application enhances the security of the site also transactions will be much faster. The amount of transaction fee will be reduced if we use the wallet-based approach to transfer funds. Only addition of cash to the system and withdrawal of money encounters fee.

UX/UI Design plays an essential role in achieving this goal. The UX/UI Design of the application improves the user experience and customer satisfaction that ultimately helps increase the number of users of the specific application. Made the perfectly good-looking UI to showcase the need of the fundraiser to the donor which increases the donation factor.

The Crowdfunding is one of the recent and renowned methods of financing the capital. In crowdfunding the fund is collected from the mass of the people for an explicit purpose. The whole process from campaigning of the idea to the collection of the fund is performed via internet through collaboration with social networking sites. The SEBI consultation paper (2014) explained crowdfunding as solicitation of funds (small amount) from multiple investors through a web-based platform or social networking site for a specific project, business venture or social cause. Crowdfunding facilitates fund raising for various creative projects like music, film, book publication or for some generous or public benefit cause or for some business venture.

As per IOSCO staff working paper, 2014, crowd funding can be segregated into four categories, namely donation crowd funding, reward crowd funding, peer to peer lending and equity based crowd funding. Donation crowd funding and reward crowd funding are exist in the class of community crowd funding while peer to peer lending and equity crowd funding are also known as financial return crowd funding. Donation crowd funding is also known as social lending. It indicates the way of fundraising for social, artistic, philanthropic and mainly for charitable purposes. Reward crowd funding refers to the process of solicitation of funds in which investors earn some existing or future tangible benefits as return on their investment. Peer to peer lending provides an online platform to the investors and issuers to satisfy their need through unsecured loans. In this method, the platform decides the interest rate of loan. In Equity based crowd funding the fund is raised through offering equity interests in the business to the investors online. Crowdfunding has a very long history. According to Crowdsourcing.org 2015, in 2014 1,250 crowdfunding platforms raised total capital of $16.2 billion. At that time North America was considered as the largest market with rapid growth in Asia, particularly in peer to peer lending. Kuppuswamy and Bayus (2013) explained crowdfunding as “an activity that has a rich history”. They concentrated on financing of Mozart and Beethoven concerts and new music compositions and the statue of liberty. Gerber et al. (2012) in their study proved that more than 50 crowdfunding platforms were functioning in US. Kuppuswamy and Bayus (2013) and Mollick (2014) researched on four different models of crowdfunding namely equity-based (profit sharing), lending-based, reward-based (preordered) and donation-based. Bellaflamme et al., (2014) in their research proved that rewardbased and equity-based as the two leading forms of crowdfunding. Schwienbacher and Larralde (2010) took the support of the study done by Lambert and Schweinbacher (2010). On the basis of the research, they grouped crowdfunding models on the basis of the rewards given to the participating crowd. These groups are classified as donations, passive investments by the crowd or active investments by the crowd.

The other piece of information that we come to know after doing the present study is that crowdfunding is correlated with other financial innovations and crowdsourcing is one of them. Crowdsourcing is the method of obtaining services, ideas or content by requesting for contributions from a large an online community, rather than from traditional employees or suppliers. And in crowdfunding only fund is arranged from public. The difference in the growth and types of crowdfunding is also found in Indian and foreign perspective.

**CHAPTER 2**

**BACKGROUND STUDY**

**2.1 KETTO ORGANISATION**

Ketto is India's best medical crowdfunding platform. Founded in 2012 by Varun Sheth, Kunal Kapoor and Zaheer Adenwala, we have assisted more than 2 Lakh individuals and Organisations in raising funds through Online Crowdfunding Campaigns across India. Ketto is India's First peer-to-peer crowdfunding platform.

Ketto shows a lot of success stories of fundraising, Ketto focuses for fundraising for everything a user can fundraise for medical, educational, personal and also for social issues too. It shows that fundraising will be a good way if no other things helped us.

**2.2 GOCROWDERA**

California-based Crowdera was founded in 2014 by two Indians and it’s a free global crowdfunding platform that expanded its operations to India in 2016. Crowdera prides itself on not charging any commission on any projects as their motto is “doing good must not be penalized”. Crowdera is privately funded by its founders and focuses on social and individual causes.

Crowdera works based on premium feature-based approach in crowd funding, they’ve got lot of users there to work around so they made the service as premium. The study was made on how to perform premium based application which brings lot of income over also the service. Now, our application doesn’t have any premium based featured but will have in future releases.

**2.3 IMPACTGURU**

ImpactGuru is a product of Harvard Innovation Lab’s Venture Initiative Program in 2014. It was founded by Menaka Gandhi, Union Cabinet Minister for Women and Child development in 2015. It has since raised over $200 million to benefit people in over 160 countries. They also provide a tax benefit to backers which appeals strongly to businesses and the wealthy and can be an incentive to give more.

**2.4 GoFundMe**

GoFundMe is an American for-profit crowdfunding platform that allows people to raise money for events ranging from life events such as celebrations and graduations to challenging circumstances like accidents and illnesses.[1] From 2010 to the beginning of 2020, over $9 billion has been raised on the platform, with contributions from over 120 million donors.

GoFundMe is unique to crowdfunding in that the company is not an incentive-based crowdfunding website. Although it does allow projects that are meant to fund other projects for musicians, inventors, etc., the business model is set up to allow for donations to personal causes and life events such as medical bills. GoFundMe also has a special section dedicated solely to users who are trying to raise money to cover their tuition costs. A prominent tuition project helped a user raise $25,000 for an out-of-state tuition to a PhD program. A 2014 tuition project raised over $100,000 for a homeless high school Valedictorian to attend college and help his family

**CHAPTER 3**

**3.1 EMPATHY MAP**

An empathy map is a collaborative tool teams can use to gain a deeper insight into their customers. Much like a user persona, an empathy map can represent a group of users, such as a customer segment. The empathy map was originally created by Dave Gray and has gained much popularity within the agile community.

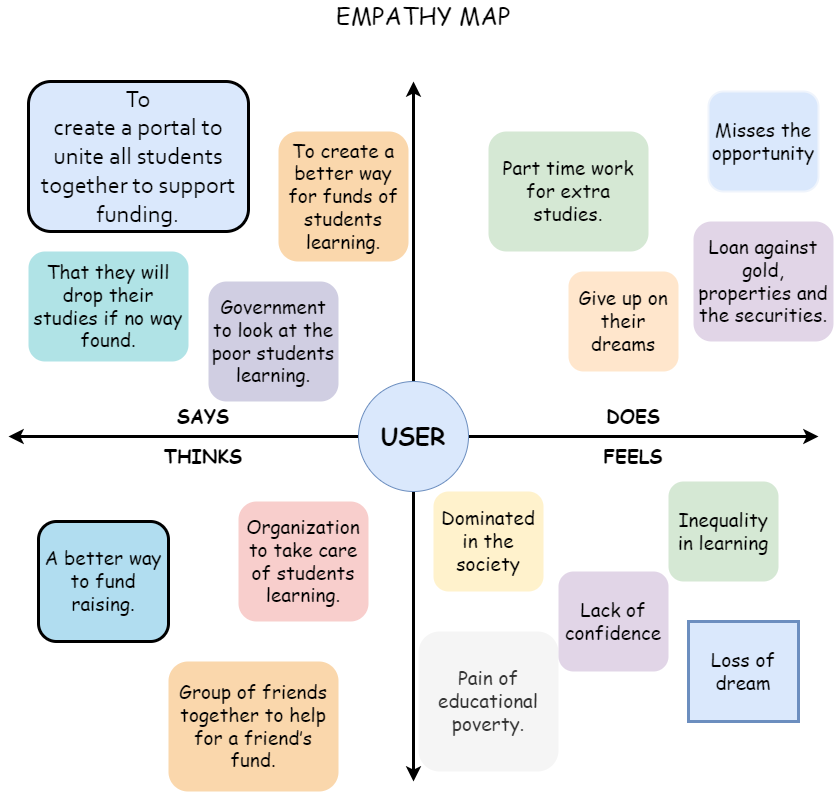


Figure 3.1 Empathy Map Crowdfunding.

**3.2 CUSTOMER JOURNEY MAP**

Customer journey mapping (also called user journey mapping) is the process of creating a customer journey map, a visual story of your customers’ interactions with your brand. This exercise helps businesses step into their customer’s shoes and see their business from the customer’s perspective. It allows you to gain insights into common customer pain points and how to improve those. Firstly, all the possible customer touchpoints are mapped out, for instance, a website, social channels, interactions with marketing and sales teams. User journeys are then created across these various touchpoints for each buyer persona. For example, a millennial buyer persona may typically become aware of a product on social, research it on the mobile version of your site, and finally make a purchase on a desktop computer.

**Why is customer journey mapping important?**

Customer journey mapping is important, because it is a strategic approach to better understanding customer expectations and is crucial for optimising the customer experience. Customer journey mapping is just as important for small and medium-sized enterprises as it is for larger companies. Customer expectations are changing for all businesses, regardless of size – customers demand an omnichannel approach to customer service, marketing and sales.

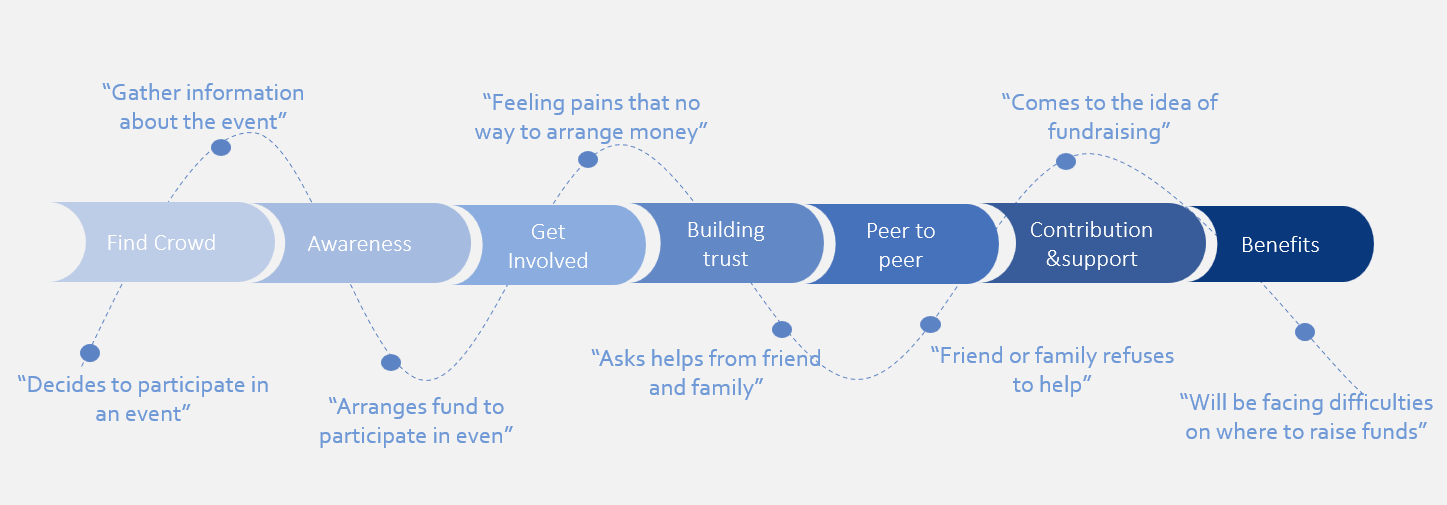
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Figure 3.2 Customer Journey map Crowdfunding

**CHAPTER 4**

**PROBLEM DEFINITION**

Poverty affects many people. But, arguably, the effects of poverty are seen most in children. And, with 1.21 billion people living below the poverty line in India, the children are sure to bear the repercussions of it. Not only does poverty affect a child’s development and educational outcomes. Education begins at home. In fact, many studies suggest that, being read to in the first few years of a child’s life contributes to the development of phonemic and comprehension skills. However, children from families living below the poverty line are less likely to be read to, highly restricting proper growth of their skills. Moreover, parents who have not received a proper education tend to underestimate the importance of education, are hesitant to „waste‟ money on schools. And, even those children that do attend schools have to face taunts and are often treated as outcastes as the present generation children do not accept anyone if they are not from their strata of the society.

India, which now has the world’s third-largest economy in terms of purchasing power parity, has been an urban-cantered, industrializing nation since its independence in 1947. Over the last 25 years, India has been noted for its significant economic growth which looks to continue for the 2017 -2018 fiscal year with an expected growth rate of 7.2 percent. While India has maintained much economic success, many failures and weaknesses still debilitate the nation’s full potential.

For example, the poverty rate in India has been less severe in recent years, but there is still much room for improvement. In 2016, 270 million Indians were surviving on $1.90 or less a day, the World Bank’s definition of extreme poverty. Of the people living in these conditions, 80 percent lived in rural India, where the main source of income for the population is through casual labor. While the economy has appeared to have boomed over the last 25 years, most growth has been in urban areas where large multinational corporations, such as IBM and Microsoft, base their software development headquarters. With this divide between urban and rural life, the economic growth does not seem to remove the issues of extreme poverty in the way a neoliberal economist would suggest. A study in 2002 found that these conditions in India are partially due to educational poverty, which is defined as

the deprivation of basic education and literacy. Only 6% of the income from poor households is invested into education and health, while the majority is spent on other necessities such as food and fuel.

With the extreme poverty rate in India falling from 53.86 percent in 1983 to 21.23 percent in 2011, the World Bank strongly believes that education is a powerful instrument for poverty reduction. While the reductions in the extreme poverty rate in India over the past 20 years in India are not due solely to educational improvements, the investment in enhancing basic education has had a significant impact on the poverty rate in India.

**CHAPTER 5**

**PATENT SURVEY**

**CHAPTER 6**

**PROPOSED METHODOLOGY**

The proposed system of crowdfunding for education consists of two major modules which leads to all sub modules of the system.

**6.1 USER ACTIVITES**

* Every fundraiser(user) must need to have an account to make a new fundraising request.

**6.1.1 USER FUNDRAISE ACTIVITES**

* A user can also avail for funds for his/her colleagues.
* Users are students who can make a new fundraise, edit and manage it.
* They can donate for any other fundraising made by other users.
* Users are able to vote for other fundraising requests which makes a fundraising to be featured which attracts more users.

**6.1.1 USER WALLET ACTIVITES**

* User can add money to the digital wallet inside the application and make a withdrawal request.
* User can view the transaction of his/her wallet.
* Any donation to a fundraise or amount received from other users are linked to the digital wallet module.

**6.1.3 USER SECURITY ACTIVITES**

* Able to review login activities done by user in last three devices, this ensures that their wallet is completely secure.
* User will be automatically logged out in another device, if made a login in in a different device.
* Users are able to change their password using their old password or using OTP method for case of forget password.

**6.2 ADMIN ACTIVITES**

* Admins are the next level of users who have more provisions than the users to make the application in the stable state

**6.2.1 USER FUNDRAISE ACTIVITES**

* Admins can make a fundraise request to freeze/hold of any suspicious activities.
* Admins are able to promote a fundraising request to the featured state.
* Admins are only able to approve/reject a newly raised fundraising request.
* Admins can view the transactions made on a fundraising request.

**6.2.2 ADMINS ACTIVITES ON USER ACCOUNTS**

* Admins can block a user for any suspicious activities.
* Admins are able to see a particular user’s wallet and it’s all transactions.
* Cash can be directly added to any user by admin.

**6.3 APPLICATION ARCHITECTURE**

An application architecture describes the patterns and techniques used to design and build an application. It contains information about the work flow of the application, database architecture and the design of the application.

**6.3.1 FRONTEND OF APPLICATION**

React (also known as React.js or ReactJS) is a free and open-source front-end JavaScript library for building user interfaces based on UI components. It is maintained by Meta (formerly Facebook) and a community of individual developers and companies. React can be used as a base in the development of single-page, mobile, or server-rendered applications with frameworks like Next.js. However, React is only concerned with state management and rendering that state to the DOM, so creating React applications usually requires the use of additional libraries for routing, as well as certain client-side functionality

Bootstrap is a free and open-source CSS framework directed at responsive, mobile-first front-end web development. It contains HTML, CSS and JavaScript-based design templates for typography, forms, buttons, navigation, and other interface components. Bootstrap is an HTML, CSS & JS Library that focuses on simplifying the development of informative web pages (as opposed to web apps). The primary purpose of adding it to a web project is to apply Bootstrap's choices of color, size, font and layout to that project. As such, the primary factor is whether the developers in charge find those choices to their liking. Once added to a project, Bootstrap provides basic style definitions for all HTML elements. The result is a uniform appearance for prose, tables and form elements across web browsers. In addition, developers can take advantage of CSS classes defined in Bootstrap to further customize the appearance of their contents. For example, Bootstrap has provisioned for light- and dark-colored tables, page headings, more prominent pull quotes, and text with a highlight.

**6.3.2 BACKEND OF APPLICATION**

Spring Boot is an open source, microservice-based Java web framework. The Spring Boot framework creates a fully production-ready environment that is completely configurable using its prebuilt code within its codebase. The microservice architecture provides developers with a fully enclosed application, including embedded application servers.

Spring Boot is just extension of the already existing and expansive Spring frameworks, but it has some specific features that make the application easier for working within the developer ecosystem. That extension includes pre-configurable web starter kits that help facilitate the responsibilities of an application server that are required for other Spring projects.

PostgreSQL is a powerful, open source object-relational database system with over 30 years of active development that has earned it a strong reputation for reliability, feature robustness, and performance.

There is a wealth of information to be found describing how to install and use PostgreSQL through the official documentation. The PostgreSQL community provides many helpful places to become familiar with the technology, discover how it works, and find career opportunities.

**6.3.3 DATABASE DESIGN**

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Figure 3.1 Database table architecture.

**6.3.4 APPLICATION WORKFLOW**

**6.4 REQUIREMENTS**

A System Requirements Specification is a structured collection of information that embodies the requirements of a system. A business analyst, sometimes titled system analyst, is responsible for analyzing the business needs of their clients and stakeholders to help identify business problems and propose solutions

**6.4.1 CLIENT REQUIREMENTS**

* Windows 7, Windows 8, Windows 8.1, Windows 10 or later
* An Intel Pentium 4 processor or later that's SSE3 capable
* A browser to access the web.

**6.4.2 SERVER REQUIREMENTS**

* System Requirements. Spring Boot 2.0. RELEASE requires Java 8 or 9 and Spring Framework 5.0. RELEASE or above. Explicit build support is provided for Maven 3.2+ and Gradle 4.
* Can run Eclipse on any normal low budget computer with a 64 bit operating system, so any machine that runs Windows 7/10, a recent version of MacOS, or a recent version of Linux will be just fine.

**CHAPTER 7**

**EXPERIMENTAL RESULTS**

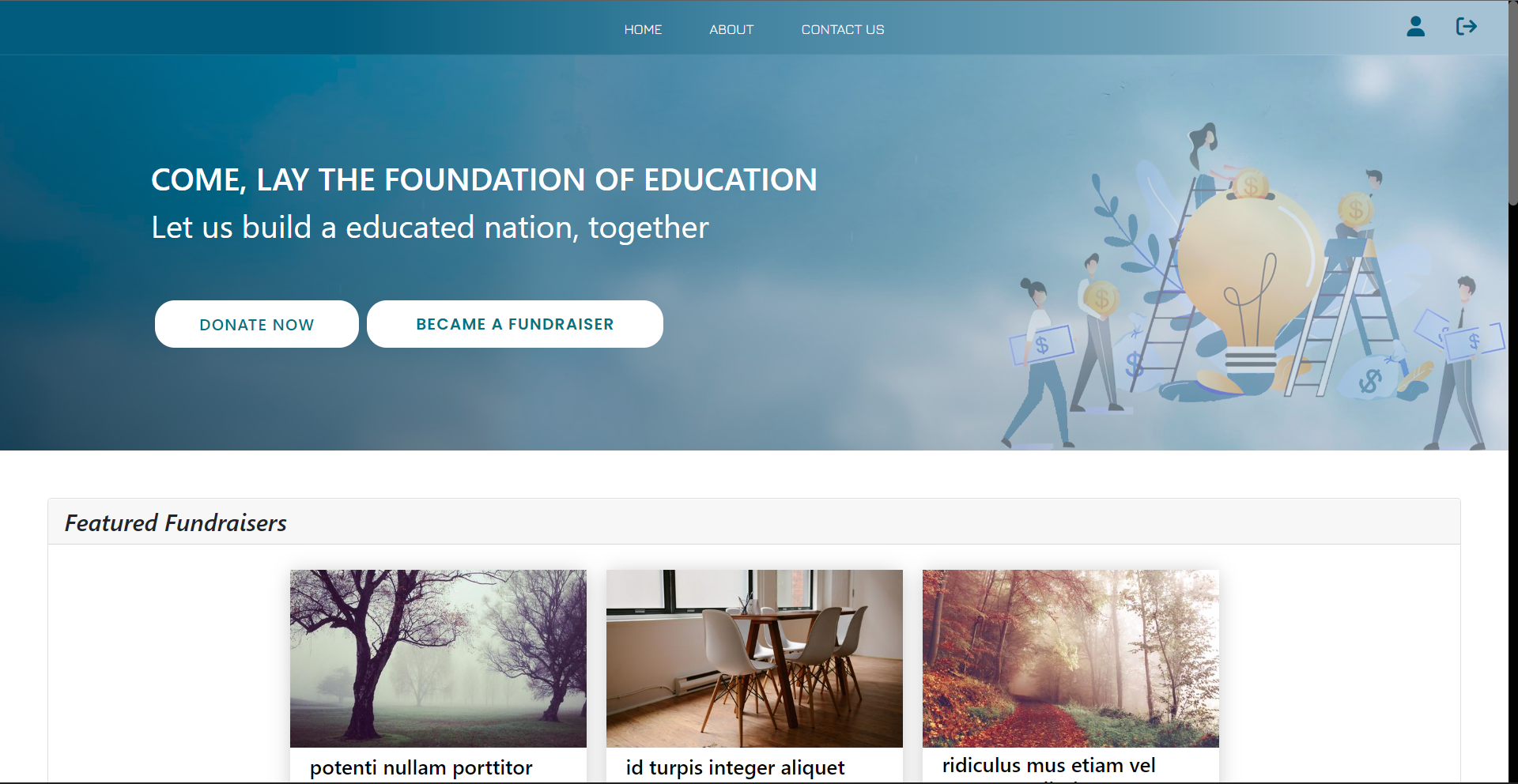
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Figure 7.1: Homepage with cover image

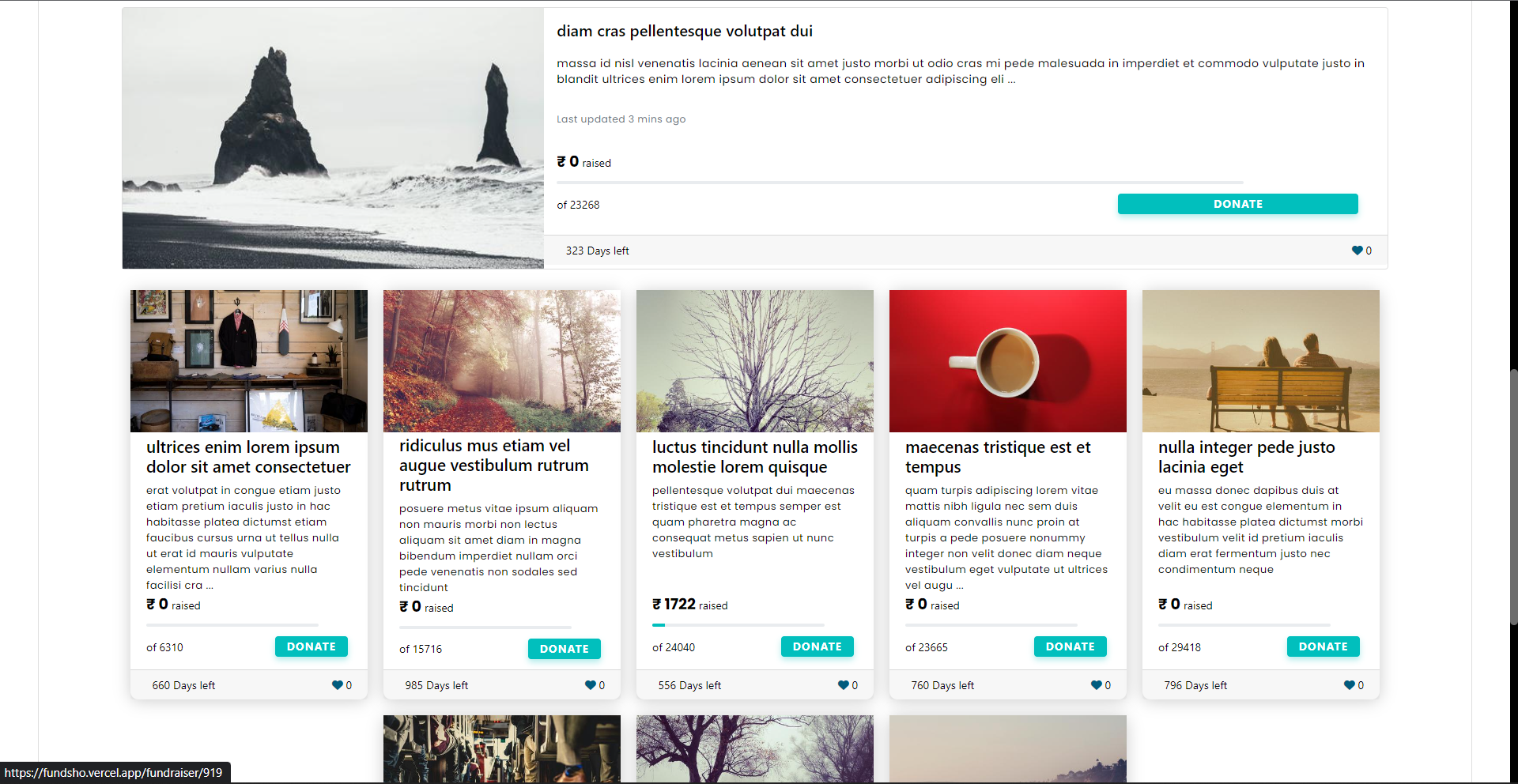


Figure 7.2: Listing all fundraisers in card with attracting title cards uploaded by users

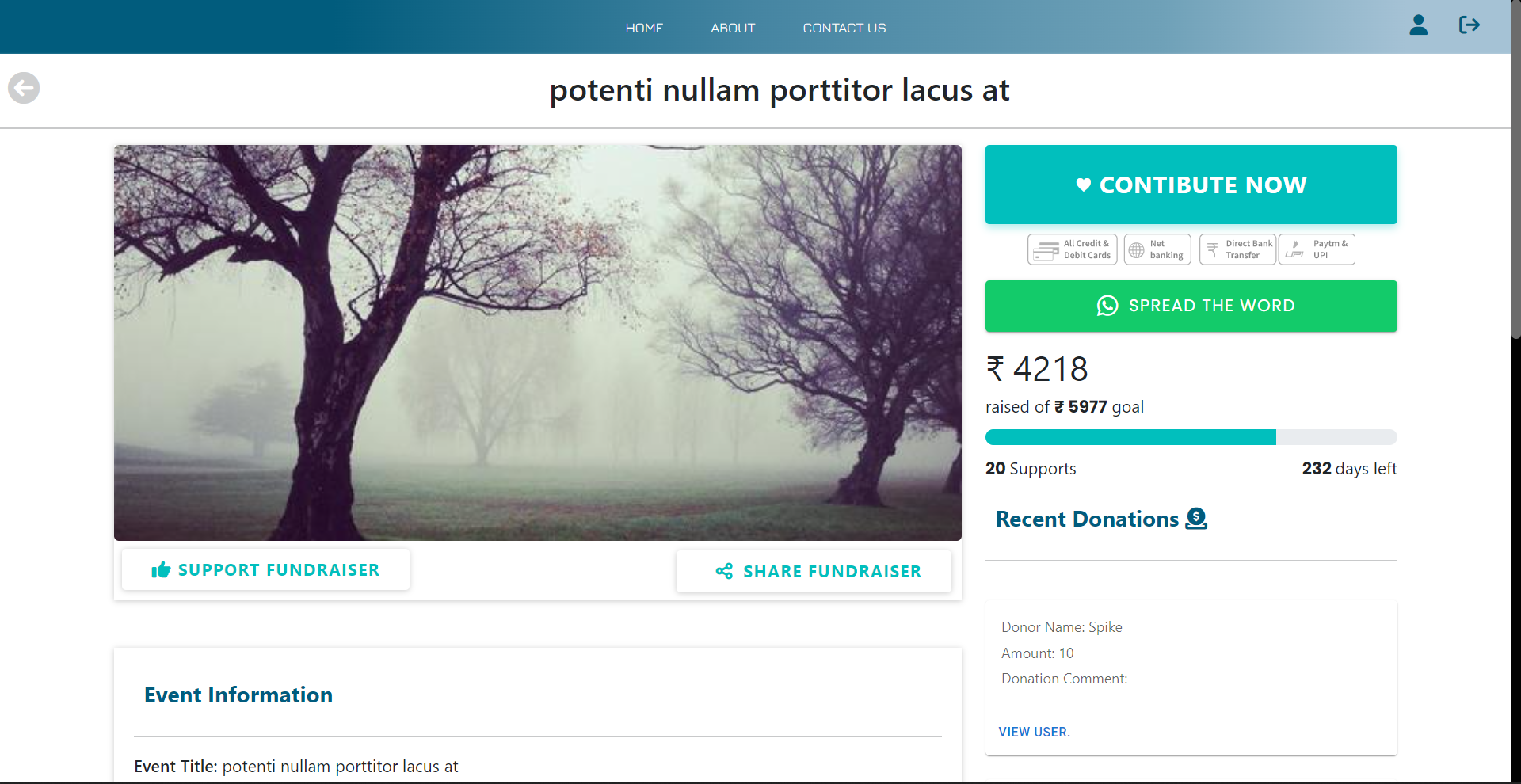
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Figure 7.3: Page listing of fundraising request with donation and share options

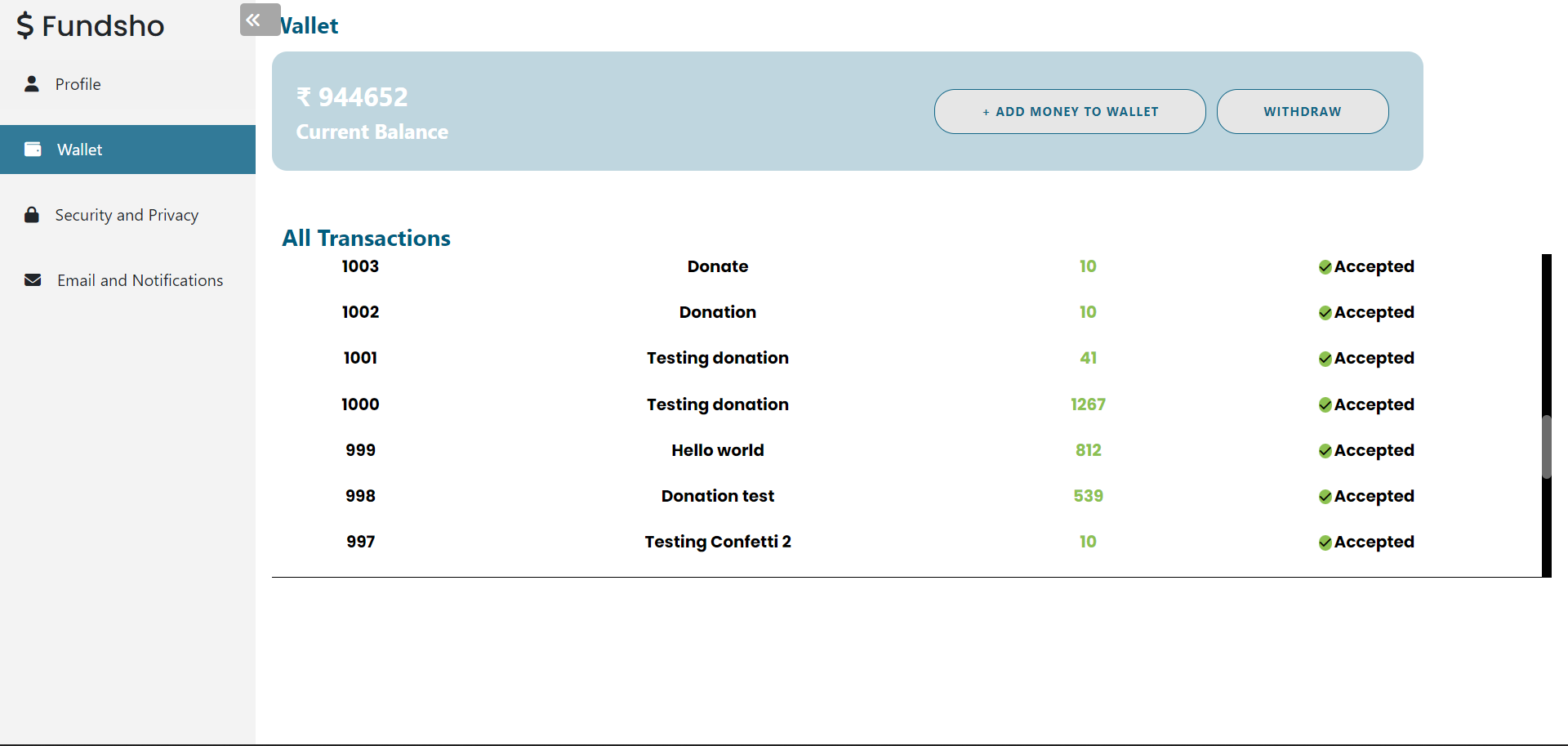
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Figure 7.4: Wallet page with transaction table

**CHAPTER 8**

**CONCLUSION**

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