

eVolution: Together For a Cause

Ms. Amrita Kungwani
Computer Science and
Engineering
Jhulelal Institute of Technology
Nagpur, India
s.jaiswal@jit.org.in

Ms Roshada Afzal
Computer Science and Engineering
Engineering
Jhulelal Institute of Technology
Technology
Nagpur, India
roshadaafzal05@gmail.com

Ms Rani Kanojiya
Computer Science and
Engineering
Jhulelal Institute of
Technology
Nagpur, India
raniashokkanojiya@gmail.com

Ms Yogita Lalwani
Computer Science and
Engineering
Jhulelal Institute of Technology
Nagpur, India
ylalwani2501@gmail.com

Ms Saily Petkar
Computer Science and Engineering
Jhulelal Institute of Technology
Nagpur, India petkarsaily@gmail.com

Abstract

Crowdfunding is a way to raise funds for a specific cause or project by asking a large number of people to donate money, usually in small amounts. Crowdfunding is done online, often with social networks, which make it easy for supporters to share a cause or project cause with their social networks. Fundraising is the process of collecting money as donations for a cause from individuals and businesses. A person who raises the money from them is known as a fundraiser. It was usually used to gather money for non-profit organizations. Some crowdfunding platforms are Kickstarter, GoFundMe, Crowd funder, Charitable, Indiegogo etc. These causes may include anything, from helping a group of people who get injured in a war, support the religious causes and support those people who suffer from natural calamities. Even allowing the different users to collaborate for the causes. As the organization promises the natural calamities victims to give financial and material help from the localities but they can't do anything for the victim as they say. So the main objective of this platform is that users get assurance from organizations work as they promised to users. And to eradicate completely the need of middlemen. Allowing the sponsorship and educational institute to collaborate with various sponsors or host volunteers on the platform. It means creating only one platform for the user and it will be trustworthy for them with assurity and in a secure way. The motive is to develop an application that runs on IOS and Android devices along with all browser compatible web portals.

Keywords: Crowdfunding and Fundraising platform, Trustworthy portal.

I. INTRODUCTION

Supporting the need for variable services and amenities on a big scale has become an inherent issue due to the absence of a normalized way to cater these services. Even help those individuals who are enduring in normal cataclysms by giving them nourishment and therapeutic confirmations. As observed in recent years, the inception of organisations that empirically promise to take financial and material help from localities when disastrous calamities occur is increasingly high. However there is no way that assures that these organisations work as they promised. Moreover, the demand of varying help often goes ignored. The need of having a normalized way for funding and helping those in need is gaining a huge threshold. So that the help needed be delivered on time and in need.

Online crowdfunding platforms have been considered a problem statement. Crowdfunding is generally implemented via crowdfunding platforms. Crowdfunding platforms are the internet based platforms that raise funds from the funders for various campaigns by creators. The objective of the platform is to

maximize the number and size of successful projects. Platform mainly provides facilities to make best possible communication among different types of users, presentation of campaign and other services. Primary targets that clients get affirmation from associations function as they promised to the client. Their help reached needy people with a secure manner without any mediator help. This platform provides a normalized way of collection of material and financial resources. This web portal provides such types of help like manpower, food, medication and clothing to those in need via no agent along this provide full transparency. User can choose his/her role whether he/she wants to be an Individual user, Sponsor, Educational institute. The sponsor can collaborate with Educational institutes and sponsor various causes. And the Educational institute collaborates with various sponsors or host volunteers on the platform. Individuals with volunteering rights with no direct associations with any organizations. Also the user wants to give some Id Proof like Adhar Card, Pan card where users get verified in some terms and condition basis by Higher Authorities like Administration and due to this platform become more secure. Funds, donations of foods, clothes or other kinds of materials, are transferred to the person without any agent and also the user can chat with that person before starting a cause and give some notifications that the material is reaching the right person to whom the user wants to transfer. The Web portal has made the entire process of floating an idea and raising funds as much easier and faster. This is an approach to assist the meriting people with making immense contrast in their lives. Crowdfunding and raising money is a support system for individuals who need to begin another business. It straightforwardly associates individuals with cash, labor, different sorts of serves to the individuals who need it. The action of raising money to support or finance a project or a cause. It is mainly used by non-profit organizations. Collecting voluntary financial, or in-kind donations, required to implement a charitable, or socially oriented activity (action, project), or fund a non-profit organization (NGO), with a socially oriented mission.

II. LITERATURE REVIEW

One of the methods of crowdfunding literature is characterized by the main categories as capital seekers, capital providers, and No middle people.

A) Crowdfunding literature with a focus on capital seekers

The crowdfunding literature focusing on the capitalseeking party is predominantly concerned with the motivations for crowdfunding, the determinants of success, and the legal restrictions of equity-based crowdfunding.

Belleflamme et al. (2013b) identified in their interviews with crowdfunding-experienced entrepreneurs three main reasons for choosing crowdfunding to finance their projects. The collection of funds was stated by all of the respondents as the main reason for using crowdfunding. Other motives mentioned were the attainment of public attention and receiving feedback for their products or services.

Gerber et al. (2012) come to very similar conclusions. They performed semi-structured interviews with market participants and identified five categories of motivation: financing, forming relationships and networks, self-affirmation, replication of success stories and increased awareness of the product. Crowdfunding offers, according to Hemer et al. (2011, pp. 30), the ability to obtain funding in the early stages of a company's life cycle and thus an opportunity to close the early stage gap. Further motives of crowdfunding identified are the speed and flexibility of the funding, little formal obligations, testing the product in the market, multiplier effects, positive signaling effects and the use of the "wisdom of the crowd" for various company tasks.

B) Crowdfunding literature with a focus on capital providers

The behavior of capital providers is crucial for the success of crowdfunding. Scientific research has mainly focused on the motives of capital providers for participating in crowdfunding and the factors that influence the investment decision.

Capital providers in crowdfunding are not financially motivated. Social reputation and characteristic thought processes play a significant role (Allison et al., 2014; Lin et al., 2014). The intentions to take part in crowdfunding are heterogeneous and rely upon the respective crowdfunding model (Lin et al., 2014;

Ordanini et al., 2011). Meetings with organizers and representatives of three crowdfunding stages show that capital providers have some regular characteristics: they are interested in collaborating with others, distinguish themselves with the organization or the products, and are interested in the financial outcome (Ordanini et al., 2011). These thought processes were additionally confirmed by Gerber et al. (2012) in interviews with capital seekers and capital providers. The last strive at financial and non-financial related prizes, they like to help the support the project or organization and they need to be active in informal organizations. Hemer et al. (2011, pp. 41) further recognize the enthusiasm for utilizing the product or administration and the fulfillment of self-affirmation and fun, which is related with this sort of investment.

CJ Crowdfunding literature with a focus on No Middle people

Primary objective that customers get assertion from associations work as they promised to customers. Their help reached needy people with a secure manner without any mediator help.

The involvement of a crowdfunding platform without as an intermediary in crowdfunding transactions offers advantages for both capital seekers and providers. In addition to providing a standardized process, platforms act as an information, communication and execution portal. Accordingly, this platform will build the trust among the participant parties. And their transactions reach at appropriate places where parties want to send their materials to other parties. They get the proper authentication during the transaction process.

III. PROPOSED SYSTEM

The functionality of proposed systems diffuses into four main modules that comprise of users and angular component and angular fire services and firebase. The user module consists of all the users i.e. admin, educational institutes, individuals and sponsors. These users have their defined read and write roles mentioned in depth in the implementation chapter.

The angular module has different sub components that constitute various views of the system acting as views in MVC architecture. The simplicity of this architecture permits further expansion of the system on a highly scalable level. This explicit scalability is an add on of angular service that constitutes to a model and controller rather than a view. Thus enhancing system performance and increasing scalability.

The angular fire services collaborate with firebase to get a real time database. This allows immediate response from the server succeeding a query. To perform efficient storage and file manipulation, firebase provides fire storage that gives real time uploading of the files or proofs that are going to be attested.

The proposed system for implementation of problem statement has the component structure as described in fig. 5.1. The component diagram contains three main modules wherein first user module segments users based on their read and write rights. Second module is purely of Typescript that is a controller performing authentication and various services along with functionality for different users to interact by mentioned methods. Further along the figure, the system heavily contains Angular Fire Services that are based to make the system highly scalable. In the backend, firebase works with real time database and file storage methods for proofing and verification of attested files.

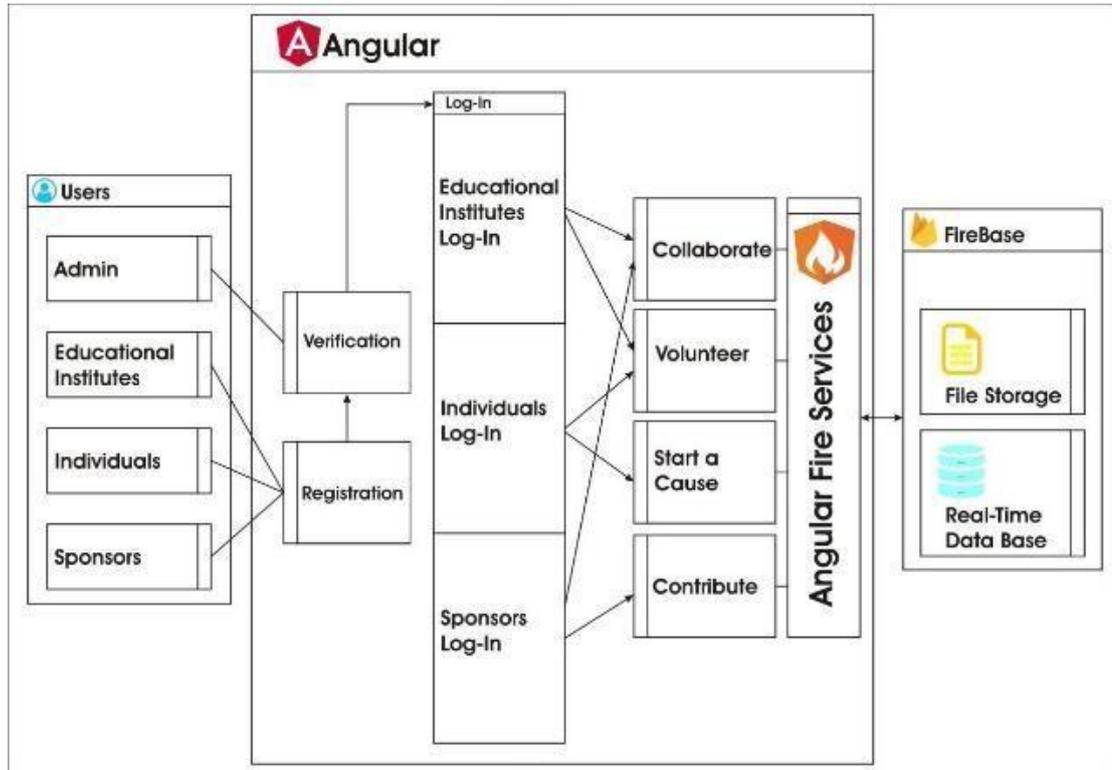


Fig. 3.1 Diagrammatic workflow of components

IV. IMPLEMENTATION AND WORKING

The proposed system is implemented as a web application that runs on every browser with the help of extended modules of angular. These modules that we used in our project are Angular Fire and AngularFire Database that allow real time updating of databases. The system runs on a wide variety of applications due to the vast presence of Typescript in the form of Angular. The implementation of the project is divided into three phases of model, view and controller. The View part is made of HTML in CSS. The model and controller are in Typescript.

Admin Module

The admin module deals with special rights allowed to the admin of the whole project. The admin, upon creation of any cause, is prompted to check the validity of the cause submitted. As the main idea behind the inception of this project was transparency to end users, the same is reflected to the admin by uploading images as proof of validity of the cause created. This upload of images is done by other three categories of users who we will discuss in upcoming modules.

The admin, with the help of a real time database and firebase storage service is able to see all the proof i.e. images uploaded by the user in real time. Also, the validation by the admin plays an important role for any cause as the users are not able to have their cause “live” on the application. After admins approval, the cause is made visible to all the users and volunteering on that cause begins.

Similarly, the admin also holds responsible for validation of profiles of users belonging to categories of Educational Institutes and Sponsors. Upon registration with mentioned two categories, the users need to wait to actually sign up with their accounts until the admin approves the attested proof of the categories claiming to be an organisation.

After reaching the portal, a homepage containing various login and registration links is displayed. The homepage also shows various causes open and prompts the user to log in if they haven't already. Three users of the system are individual users, sponsors, educational institutes.

Educational Institutes' module

The Educational Institutes are given a special category among users because of immediate availability of volunteers. One of the main motivations of this project besought the availability of volunteers for calamities that demand it. This aim was achieved by giving Educational Institutes a special distinction among other users due to availability of people who can willingly volunteer even on immediate notice.

The educational institutes need to attest a proof supporting their identity as an educational institute that upon verification from admin, grants full access rights to the user.

Sponsors' Module

The sponsors' module gives organizations like NGOs or other companies to register themselves on the portal. Just as educational institutes, the 'sponsors' are needed to attest a proof claiming their identity. They are allowed to contribute to the causes financially as well as with other resources acquainted by them.

Individuals' Module

Individual users need not go under the scrutiny of admin. Individual users create causes that may concern them and attach proof of it along with the form submitted for creation of cause. The cause and its proof are made live to all the users after admin's approval. This broadcast of the proof of cause infiltrates the transparency desired for the sole creation of this project

Angular Fire Services

Angular fire services allow the developers to scale the project as and when the need arises. The DOM structure of Angular allows the services to operate on an abstract level with the functionality of a controller only, in a MVC like environment. Here, with angular, Model and Controller is TypeScript; View is HTML5 that together forms the Angular CLI7+ stack.

Verification, Login, Registration Modules

These modules make use of authorization of users with the Authorization Service of Firebase that allows the users to be created and logged with the help of their emails and passwords. Also, firebase provides a way for users to reset their password in case they forget.

The firebase storage services and real time database allow users to attest proofs and get admin response in real time.

V. RESULT, ANALYSIS AND DISCUSSION

The outcome of this project will be a generalized way of material and financial funding. Thereby, it induces direct transparency and straightforwardness to every class of users. This portal works to allow different sections of society to come together and work for a cause. This idea of providing a generalised pathway to cater all the varying services ensures on time delivery of services whether financial or material. Also, a chat feature permits the users to chat and collaborate when manpower is needed.

With the help of this project, there will be transparency with respect to all classes of users. This transparency will motivate users to contribute more and ultimately reduce the need of organisations that act as middlemen.

VI. CONCLUSION

In this work, we proposed a model with a plan to upgrade the usefulness of stages by giving a help device that might be actualized as module apparatus on the stage. This framework will have the option to accomplish full straightforwardness and straightforwardness along these lines, at last assembling the trust of the wide arrangement of groups of spectators that utilize it. The model can without much of a stretch be suited on a huge scale for different gifts and foundations that happen during celebrations, greatly in India.

REFERENCES

1. Surowiecki, J. (2004). *The wisdom of crowds*. New York: Anchor Books. 882 Tomczak, A., & Brem, A. (2013). A conceptualized investment model of crowdfunding. *Venture 883 Capital*, 15(4), 335–359.* 884
2. Tyebjee, T., & Bruno, A. (1984). A model of venture capitalist investment activity. *Management 885 Science*, 30(9), 1051–1066. 886
3. Vass, T. (2013). The Nexus of financial and political interests between crowd funders and regional 887 economic development professionals: The new-new innovation economics (SSRN Working 888 Paper No. 2291198). Retrieved April 10, 2013, from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=42291198 889 890
4. Vitale, M. (2013). Crowdfunding: Recent international developments and analysis of its compat- 891 ibility with Australia's existing regulatory framework (SSRN Working Paper No. 2324573). 892 Retrieved May 15, 2014, from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2324573* 893
5. Xu, A., Yang, X., Rao, H., Fu, W., Huang, S., & Bailey, B. P. (2014). Show me the money! An 917 analysis of project updates during crowdfunding campaigns. In *Proceedings of the 32nd annual 918 ACM conference on Human Factors in Computing Systems* (pp. 591–600). ACM. Retrieved 919 from http://web.engr.illinois.edu/~xu26/index_files/crowdfunding-xu.pdf* 920
6. Yang, X. (2014). The role of photographs in online peer-to-peer lending behavior. *Social Behavior 921 & Personality*, 42(38), 445–452. doi:10.2224/sbp.2014.42.3.445* 922 Yum, H., Lee, B., & Chae, M. (2012).
7. From the wisdom of crowds to my own judgment in 923 microfinance through online peer-to-peer lending platforms. *Electronic Commerce Research 924 and Applications*, 11(5), 469–483. doi: 10.1016/j.elerap.2012.05.003* 925 Zhang, J., & Liu, P. (2012). Rational herding in microloan markets. *Management Science*, 58(5), 926 892–912. doi:10.1287/mnsc.1110.1459* 927