

ONLINE DONATION BASED CROWDFUNDING

Submitted in partial fulfillment of the requirements for
the award of
Bachelor of Engineering Degree in Computer Science and Engineering
By
Putta pawan(Reg. No.38110430)



**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SCHOOL OF COMPUTING**

SATHYABAMA

**INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)**

**Accredited with Grade "A" by NAAC
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APRIL-2020



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

BONAFIDE CERTIFICATE

This is to certify that this Project Report is the bonafide work of putta pawan (Reg. No.38110435) who carried out the project entitled “**ONLINE DONATION BASED CROWDFUNDING**” under my supervision from **November 2020** to **APRIL 2021**.

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DECLARATION

Putta pawan(**Reg. No.38110435**), hereby to declare that the project report entitled **ONLINE DONATION BASED CROWDFUNDING** done by me under the guidance of **Dr. V. Pralya** is submitted in partial fulfilment of the requirements for the award of **Bachelor of Engineering or Degree** in the department of **Computer Science and Engineering**.

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ABSTRACT

Charity is an organization set up to provide help and raise money for those in need. It is generosity and helpfulness, especially toward the needy or suffering. Crowdfunding works through individuals or organizations who invest in (or donate to). Crowdfunding projects in return for a potential profit or reward. Investing this way can be risky, so make sure you know what you're doing. So, we are providing trustworthy crowdfunding through government which is the funding of a project by a large number of supporters who contribute a small amount. Only authenticated recipients and the donor can request and donate money here. This system uses the K-means clustering algorithm to cluster the similar data from a large scale of datasets. After the completion of transaction process it will generate a certificate on the name of donor. This system helps in automatically notifying the donors according to their interest in a donation on any particular day, for example, on their birthday, and appreciate the donors to further improve their sequence of donation.

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LIST OF ABBREVIATIONS

JDK	Java Development Toolkit
DEX	Dalvik Executables
TCP	Transmission Control Protocol
IP	Internet Protocol
HTTP	Hyper Text Transfer Protocol
ADT	Android Development Tool
OCR	Optical Character Recognition

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CHAPTER 1

INTRODUCTION

Crowdfunding is a practice of raising funds from people to support this project which has brought new life to charity, i.e., making it easy to donate any amount of money to help across the globe. Donation-based crowdfunding is the most preferred mode of fundraising. Crowdfunding through online platforms knows no boundaries, and has the potential to go viral. The problem of high donor attrition i.e., many donors donate only once or very few times within a rather short lifecycle and then leave. Thus, it is an urgent task to analyze the factors and then further predict donor behavior. In this process, presenting a focused study on the analysis of donation recurrence and donor retention to predict the donor's interest in a donation. Specifically, it proposes a model, which has the details of the recipient, actual donor, and the verifying person. After the donation process, every donor will get a proper donation certificate approved by the government. The experimental results will demonstrate the individual's interest in the donation and appreciate them to donate more in their future with a properly secured transaction with the support of the government.

SYNOPSIS

The emergence of mobile cloud computing enables mobile users to offload applications to nearby mobile resources to reduce energy consumption and improve performance. However, due to mobility and cloudlet capacity, the connections between a mobile user and mobile cloudlets can be mobile services. As a result, offloading actions taken by the mobile user may fail (e.g., the user moves out of the communication range of cloudlets). The mobile user has an application to be executed. In the intermediate mobile act as a mobile provider to perform user tasks with neighbors offload node. As the application is divided into code sections during the execution the mobile user can dynamically decide to execute application phases locally on the mobile device or offload to nearby cloudlet mobiles.

The incentive scheme uses a virtual currency, named FlopCoin, to compensate devices whenever they execute an off loadable task. The amount of

the Flop Coins that are exchanged in each application offloading is determined by individually rational and incentive method

AIM OF THE PROJECT

The main aim of this project is to demonstrate the effectiveness of analyzing and predicting donation recurrence and donor retention in crowdfunding and providing a proper trustworthy donation from the donors to the clients.

EXISTING SYSTEM

In the existing system, donation recurrence and donor retention were predicted with the help of large-scale behavioral data collected from crowdfunding. It uses the Joint Deep Survival model to integrate the heterogeneous since they are highly relevant. This system demonstrates the effectiveness of analyzing and predicting the donation recurrence and donor retention in crowdfunding and further predicts the donors for future donation.

PROBLEM DEFINITION

- The retention of the donor is not known because they have not observed the occurrence of donor attrition.
- The models may lose the abilities to capture the sequence dependence for such a long time.
- The security for donors and recipients for requesting and donating money is not mentioned.

PROPOSED SYSTEM

In this work, the client and the donor have to fill their details which will be verified by the third party, the verifying agent appointed by the government. The verifying agent will accept the details by verifying their details using Optical character Recognition and proceeds the secured transaction from the donors to the clients. This system uses the clustering algorithm to filter the data from a large scale of datasets and uses the K-means Clustering algorithm for clustering similar data from a large dataset. This system will automatically notify the donors on any

particular day, for example, on their birthday, and appreciate the donors to further improve their sequence of donation.

ADVANTAGES

- By analyzing and predicting the donation recurrence and donor retention, the donors can be predicted easily and are contacted for any need of money from the recipient.
- We are giving trustworthy security for recipients and donors to donate and request money through this government charity.
- This system improves the interest in donations among donors. It appreciates and notifies the donor to donate based on their interests.

CHAPTER 2

LITERATURE SURVEY

TITLE: A Sequential Approach to Market State Modeling and Analysis in Online P2P Lending.

AUTHOUR: Hongke Zhao, *Qi Liu, Hengshu Zhu.*

Advantages

- Online peer-to-peer (P2P) lending is an emerging wealth-management service for individuals, which allows lenders to directly bid and invest in the listings created by borrowers without going through any traditional financial intermediaries.

Disadvantages

- P2P lending allows individuals to directly borrow and lend money from one to another without going through traditional financial intermediaries.
- The problem of market state modeling remains pretty open due to many technical and domain challenges, such as the dynamic and sequential characteristics of listings.

TITLE: Donor Retention in Online Crowdfunding Communities: A Case Study of DonorsChoose.org

AUTHOR: Tim Althoff, Jure Leskovec

Advantages

- Online peer-to-peer (P2P) lending is an emerging wealth-management service for individuals, which allows lenders to directly bid and invest in the listings created by borrowers without going through any traditional financial intermediaries.

Disadvantages

- P2P lending allows individuals to directly borrow and lend money from one to another without going through traditional financial intermediaries.

- The problem of market state modeling remains pretty open due to many technical and domain challenges, such as the dynamic and sequential characteristics of listings.

TITLE: Tracking the Dynamics in Crowdfunding

AUTHOR: Hongke Zhao, Hefu Zhang

Advantages

- A special goal is to forecast the funding amount for a given campaign and its perks in the future days.
- The experimental results on our collected data demonstrated the effectiveness of our solutions, especially SWR and the combination.

Disadvantages

- To track and forecast the dynamics, how to model the effects of these factors in the decision making of the crowd is very difficult.
- They employ a revision matrix to combine the two-level base forecasts for the final forecasting.

TITLE: Crowdsourced Data Management: A Survey

AUTHOR: Guoliang Li Jiannan Wang

Advantages

- Crowdsourcing platforms are an effective way to harness the capabilities of people to apply human computation for such tasks.
- Crowdsourced data management has become an area of increasing interest in research and industry.

Disadvantages

- Any important data management and analytics tasks cannot be completely addressed by automated processes.

- **Quality Control:** Workers may return noisy or incorrect results so effective techniques are required to achieve high quality;
- **Cost Control:** The crowd is not free, and cost control aims to reduce the monetary cost;
- **Latency Control:** The human workers can be slow, particularly compared to automated computing time scales, so latency-control techniques are required.

TITLE: A Bayesian Perspective on Early Stage Event Prediction in Longitudinal Data

AUTHOR: Mahtab Jahanbani Fard, Student Member, IEEE, Ping Wang

Advantages

- The goal of this work is to predict the event occurrence at a future time point using only the information about a limited number of events that occurred at the initial stages of a longitudinal study.
- Developing effective prediction models to estimate the outcome of a particular event of interest is a critical challenge in longitudinal studies.

Disadvantages

- Predicting event occurrence at the early stage of a longitudinal study is an important and challenging problem that has high practical value in many real-world applications.
- Absence of complete information about event occurrence (censoring).

TITLE: QASCA: A Quality-Aware Task Assignment System for

Crowdsourcing Applications

AUTHOR: Yudian Zhengy, Jiannan Wang

Advantages:

- We propose to consider quality measures (also known as evaluation metrics) that are relevant to an application during the task assignment process.

- We designed optimal result vector selection algorithms and two respective efficient online assignment algorithms for Accuracy and F-score.

Disadvantages:

We further investigate online assignment strategies, which enables optimal task assignments.

TITLE: Net Cycle: Collective Evolution Inference in Heterogeneous Information Networks

AUTHOR: Yizhou Zhang^{1,2} Yun Xiong^{1,2} Xiangnan Kong³ Yangyong Zhu¹

Advantages:

- There are also approaches on time series prediction, which mainly exploits the autocorrelation within an instance different time points during the inference process.
- Empirical studies on real-world tasks demonstrate the effectiveness of the method.

Disadvantages:

- The Net Cycle method can not only predict the values of node response variables for collective inference problems.
- The response variables of related instances can co-evolve over time and their evolutions are not following a static correlation across

CHAPTER 3

METHODOLOGY

PURPOSE AND SCOPE OF THE PROJECT

The purpose of this project is to demonstrate the effectiveness of analyzing and predicting the donation recurrence and donor retention in crowdfunding and providing a proper trustworthy donation from the donors to the clients.

The client and the donor have to fill their details which will be verified by the third party, the verifying agent appointed by the government. The verifying agent will verify by using optical character recognition and accept the details, proceeds secured transaction from the donors to the clients. This system uses the clustering algorithm to filter the data from a large scale of datasets and uses the K-Means Clustering algorithm for clustering, which will cluster the similar data items from large datasets according to the user preference. This system will automatically notify the donors on any particular day, for example, on their birthday, and appreciate the donors to further improve their sequence of donation. This system will make a secure transaction from the donors to the clients only after verifying whether the donors and the clients are authorized persons. And also this will improve the eagerness of donors for donation.

PRODUCT PERSPECTIVE:

Charity is an organization set up to provide help and raise money for those in need. It is generosity and helpfulness, especially toward the needy or suffering. Crowdfunding works through individuals or organizations that invest in (or donate to). Crowdfunding projects in return for a potential profit or reward. Investing this way can be risky, so make sure you know what you're doing. So, we are providing trustworthy crowdfunding through government, which is the funding of a project by a large number of supporters who each contribute a small amount. Only authenticated recipients and the donor can request and donate money here. This system uses the clustering algorithm to filter the data from a large scale of datasets and uses the K-Means Clustering algorithm for clustering similar data from large datasets. These systems help in automatically notifying the donors according to their

interest in a donation on any particular day, for example, on their birthday, and appreciate the donors to further improve their sequence of donation.

SYSTEM FEATURES:

Crowdfunding is a practice of raising funds from people to support your project which has brought new life to charity, i.e., making it easy to donate any amount of money to help across the globe. Donation-based crowdfunding is the most preferred mode of fundraising. Crowdfunding through online platforms knows no boundaries, and has the potential to go viral. The problem of high donor attrition i.e., many donors donate only once or very few times within a rather short lifecycle and then leave. Thus, it is an urgent task to analyze the factors and then further predict donor behavior. In this paper, we present a focused study on the analysis of donation recurrence and donor retention to predict the donor's interest in a donation. Specifically, we proposed a model, which has the details of the recipient, actual donor, and the verifying person. After the donation process, every donor will get a proper donation certificate approved by the government. The experimental results will demonstrate the individual's interest in the donation and appreciate them to donate more in their future with a properly secured transaction with the support of the government.

HARDWARE AND SOFTWARE SPECIFICATION

HARDWARE REQUIREMENTS:

- Hard Disk : 80GB and Above
- RAM : 4GB and Above
- Processor : P IV and Above

SOFTWARE REQUIREMENTS:

- Windows 7 and above
- JDK 1.7
- Tomcat 7.0
- Python 3.6
- MySQL

TECHNOLOGIES USED:

- J2EE (JSP, Servlets), JavaScript, HTML, CSS.

DETAIL DESCRIPTION OF TECHNOLOGY USED

HTML 5

HTML5 will be the new standard for HTML. The previous version of HTML, HTML 4.01,

came in 1999. The web has changed a lot since then. HTML5 is still a work in progress.

However, the major browsers support many of the new HTML5 elements and APIs. HTML5 is a cooperation between the World Wide Web Consortium (W3C) and the Web

Hypertext Application Technology Working Group (WHATWG).

WHATWG was working with web forms and applications, and W3C was working with

XHTML 2.0. In 2006, they decided to cooperate and create a new version of HTML.

Some rules for HTML5 were established:

- a) New features should be based on HTML, CSS, DOM, and JavaScript
- b) Reduce the need for external plug-ins (like Flash)
- c) Better error handling
- d) More markup to replace scripting
- e) HTML5 should be device-independent
- f) The development process should be visible to the public

CSS

Cascading Style Sheets (CSS) is a style sheet language used for describing the look and formatting of a document written in a markup language. While most often used to style web pages and user interfaces written in HTML and XHTML, the language can be applied to any kind of XML document, including plain XML, SVG, and XUL. CSS is a cornerstone specification of the web and almost all web pages use CSS style sheets to describe their presentation.

CSS is designed primarily to enable the separation of document content from document presentation, including elements such as the layout, colors, and fonts.

This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, enable multiple pages to share formatting, and reduce complexity and repetition in the structural content (such as by allowing for tableless web design).

CSS can also allow the same markup page to be presented in different styles for different rendering methods, such as on-screen, in print, by voice (when read out by a speech-based browser or screen reader) and on Braille-based, tactile devices. It can also be used to allow the web page to display differently depending on the screen size or device on which it is being viewed. While the author of a document typically links that document to a CSS file, readers can use a different style sheet, perhaps one on their computer, to override the one the author has specified.

With plain HTML you define the colors and sizes of text and tables throughout your pages. If you want to change a certain element you will, therefore, have to work your way through the document and change it. With CSS you define the colors and sizes in "styles". Then as you write your documents you refer to the styles. Therefore: if you change a certain style it will change the look of your entire site. Another big advantage is that CSS offers much more detailed attributes than plain HTML for defining the look and feel of your site.

JAVASCRIPT

JavaScript (JS) is a dynamic computer programming language. It is most commonly used as part of web browsers, whose implementations allow client-side scripts to interact with the user, control the browser, communicate asynchronously, and alter the document content that is displayed. It is also being used in server-side network programming (with Node.js), game development, and the creation of desktop and mobile applications.

JavaScript is a prototype-based scripting language with dynamic typing and has first-class functions. Its syntax was influenced by C. JavaScript copies many names and naming conventions from Java, but the two languages are otherwise unrelated and have very different semantics. The key design principles within JavaScript are taken from the Self and Scheme programming languages. It is a multi-paradigm

language, supporting object-oriented, imperative, and functional programming styles.

The application of JavaScript in use outside of web pages—for example, in PDF documents, site-specific browsers, and desktop widgets—is also significant. Newer and faster JavaScript VMs and platforms built upon them (notably Node.js) have also increased the popularity of JavaScript for server-side web applications. On the client-side, JavaScript was traditionally implemented as an interpreted language but the just-in-time compilation is now performed by recent (post-2012) browsers.

JavaScript was formalized in the ECMA Script language standard and is primarily used as part of a web browser (client-side JavaScript). This enables programmatic access to objects within a host environment.

JavaScript is the most popular programming language in the world.

It is the language for HTML, for the Web, for computers, servers, laptops, tablets, smartphones, and more.

You can use JavaScript to:

- a) Change HTML elements
- Delete HTML elements
- Create new HTML elements
- Copy and clone HTML elements

APACHE TOMCAT SERVER

Apache Tomcat (formerly under the Apache Jakarta Project; Tomcat is now a top-level project) is a web container developed at the Apache Software Foundation. Tomcat implements the servlet and the JavaServer Pages (JSP) specifications from Sun Microsystems, providing an environment for Java code to run in cooperation with a web server. It adds tools for configuration and management but can also be configured by editing configuration files that are normally XML-formatted. Because Tomcat includes its HTTP server internally, it is also considered a standalone web server.

WORKING OF JAVA

For those who are new to object-oriented programming, the concept of a class will be new to you. Simplistically, a class is a definition for a segment of code that can contain both data (called attributes) and functions (called methods).

When the interpreter executes a class, it looks for a particular method by the name of **main**, which will sound familiar to C programmers. The main method is passed as a parameter an array of strings (similar to the `argv []` of C) and is declared as a static method.

To output text from the program, we execute the **println** method of **System.out**, which is java's output stream. UNIX users will appreciate the theory behind such a stream, as it is standard output. For those who are instead used to the Wintel platform, it will write the string passed to it to the user's program.

Java consists of two things:

- Programming language
- Platform

ALGORITHM DESCRIPTION

We have used a k-means clustering algorithm and Optical character recognition.

K-MEANS CLUSTERING:

K-means is one of the meekest unsupervised erudition algorithms that solve the well-known clustering problem.

Step 1: Initialization the initial thing k-means does, is randomly choose K examples (data points) from the dataset (the 4 green points) as initial centroids and that's simply because it does not know up till now where the center of each cluster is. (a centroid is the center of a cluster).

Step 2: Cluster Assignment then, all the data points that are the closest (similar) to a centroid will create a cluster. If we're using the Euclidean distance between data points and every centroid, a conservative line is tired between two centroids, then a perpendicular bisector (boundary line) splits this line into two clusters.

Step 3: Transfer the centroid now, we have new clusters, that need centers. A centroid's new charge is going to be the mean of all the examples in a cluster.

We'll keep repeating steps 2 and 3 up until the centroids stop moving, in other words, the K-means algorithm is converged.

OPTICAL CHARACTER RECOGNITION:

OCR is the use of technology to distinguish written or handwritten text letterings inside digital images of physical documents, such as a perused paper text. OCR is used to read a written text. It images the text optically, character by character, converts them into machine-readable code, and stores the text on the system memory. Imagine you've got a paper document - for example, magazine article, brochure, or PDF agreement your companion sent to you by email. A scanner is not enough to make this material available for editing, say in Microsoft Word. All a scanner can do is create an image or a photograph of the document that is unknown more than a collection of black and white or color dots, known as a raster image. To excerpt and repurpose data from perused documents, camera images, or image-only PDFs, you need OCR software that would single out letters on the image, placed them into words and then arguments hooked on sentences, thus allowing you to access and edit the content of the unique document.

TESTING TECHNIQUES / TESTING STRATEGIES

TESTING:

Testing is a process of executing a program with the intent of finding an error. A good test case is one that has a high probability of finding an as-yet-undiscovered error. A successful test is one that uncovers an as-yet-undiscovered error. System testing is the stage of implementation, which is aimed at ensuring that the system works accurately and efficiently as expected before live operation commences. It verifies that the whole set of programs hang together. System testing requires a test consists of several key activities and steps for run program, string, system, and is important in adopting a successful new system. This is the last chance to detect and correct errors before the system is installed for user acceptance testing.

The software testing process commences once the program is created and the documentation and related data structures are designed. Software testing is

essential for correcting errors. Otherwise, the program or the project is not said to be complete. Software testing is a critical element of software quality assurance and represents the ultimate review of specification design and coding. Testing is the process of executing the program with the intent of finding the error. A good test case design is one that has a probability of finding a yet undiscovered error. A successful test is one that uncovers a yet undiscovered error. Any engineering product can be tested in one of the two ways:

A. WHITE BOX TESTING: This testing is also called as Glass box testing. In this testing, by knowing the specific functions that a product has been designed to perform test can be conducted that demonstrate each function is fully operational at the same time searching for errors in each function. It is a test case design method that uses the control structure of the procedural design to derive test cases. Basis path testing is a white box testing.

Basis path testing:

- Flow graph notation
- Cyclometric complexity
- Deriving test cases
- Graph matrices Control

B. BLACK BOX TESTING: In this testing by knowing the internal operation of a product, the test can be conducted to ensure that “all gears mesh”, that is the internal operation performs according to specification and all internal components have been adequately exercised. It fundamentally focuses on the functional requirements of the software.

The steps involved in black-box test case design are:

- Graph-based testing methods
- Equivalence partitioning
- Boundary value analysis
- Comparison testing

SOFTWARE TESTING STRATEGIES:

A software testing strategy provides a road map for the software developer. Testing is a set activity that can be planned and conducted systematically. For this reason,

a template for software testing a set of steps into which we can place specific test case design methods should be strategy should have the following characteristics:

- Testing begins at the module level and works outward toward the integration of the entire computer-based system.
- Different testing techniques are appropriate at different points in time.
- The developer of the software and an independent test group conducts testing.
- Testing and Debugging are different activities but debugging must be accommodated in any testing strategy.

A. INTEGRATION TESTING: Integration testing is a systematic technique for constructing the program structure while at the same time conducting tests to uncover errors associated with it. Individual modules, which are highly prone to interface errors, should not be assumed to work instantly when we put them together. The problem, of course, is putting them together interfacing. There may be the chances of data loss across on another's sub-functions when combined may not produce the desired major function; individually acceptable impressions may be magnified to unacceptable levels; global data structures can present problems.

B. PROGRAM TESTING: Logical and syntax errors have been pointed out by program testing. A syntax error is an error in a program statement that violates one or more rules of the language in which it is written. An improperly defined field dimension or omitted keywords is a common syntax error. These errors are shown through error messages generated by the computer. A logic error, on the other hand, deals with the incorrect data fields, out-off-range items, and invalid combinations. Since the compiler s will not deduct logical error, the programmer must examine the output. Condition testing exercises the logical conditions contained in a module. The possible types of elements in a condition include a Boolean operator, Boolean variable, a pair of Boolean parentheses A relational operator, or on arithmetic expression. Condition testing method focuses on testing each condition in the program the purpose of the condition test is to deduct not only errors in the condition of a program but also other errors in the program.

C. SECURITY TESTING: Security testing attempts to verify the protection mechanisms built into a system well, in fact, protect it from improper penetration. The system security must be tested for invulnerability from the frontal attack must also be tested

for invulnerability from a rear attack. During security, the tester places the role of an individual who desires to penetrate the system.

D. VALIDATION TESTING: At the culmination of integration testing, the software is completely assembled as a package. Interfacing errors have been uncovered and corrected and a final series of software test-validation testing begins. Validation testing can be defined in many ways, but a simple definition is that validation succeeds when the software functions in a manner that is reasonably expected by the customer. Software validation is achieved through a series of black-box tests that demonstrate conformity with requirements. After a validation test has been conducted, one of two conditions exists.

- * The function or performance characteristics conform to specifications and are accepted.

- * A validation from the specification is uncovered and a deficiency created.

Deviation or errors discovered at this step in this project is corrected before the completion of the project with the help of the user by negotiating to establish a method for resolving deficiencies. Thus the proposed system under consideration has been tested by using validation testing and found to be working satisfactorily. Though there were deficiencies in the system they were not catastrophic

E. USER ACCEPTANCE TESTING: User acceptance of the system is a key factor for the success of any system. The system under consideration is tested for user acceptance by constantly keeping in touch with prospective systems and users at the time of developing and making changes whenever required. This is done concerning the following points.

- Input screen design.
- Output screen design.

SYSTEM DESIGN

The recipient has to fill the registration form with required mandatory input fields and the personal details. These details will get further verified by the government authority or the verifying agent appointed by the government. The donor has to fill the registration form with required mandatory input fields and the personal

details. These details will get further verified by the government authority or the verifying agent appointed by the government. By using the token, generated after the completion of verifying recipient's details by the government authority. The recipient will log in only using the unique token to request money. Their request contains the details of the category for which the recipient needs money. The recipient can view their request details and status of donation for their requests. By using the token, generated after the completion of verifying donor's details by the government authority. The donor will log in only using the unique token to donate money. Their request contains the details or the category for which the donor is willing to donate. The donor can view the history of their donations. After verifying all the details of the donor and the recipient, the verifying person will approve the details of the recipient and the donor and further allows the process of funding. After the funding process, the donor will be provided a certificate by the government. The donor will get notifications automatically to appreciate their donation funding.

ARCHITECTURE DIAGRAM:

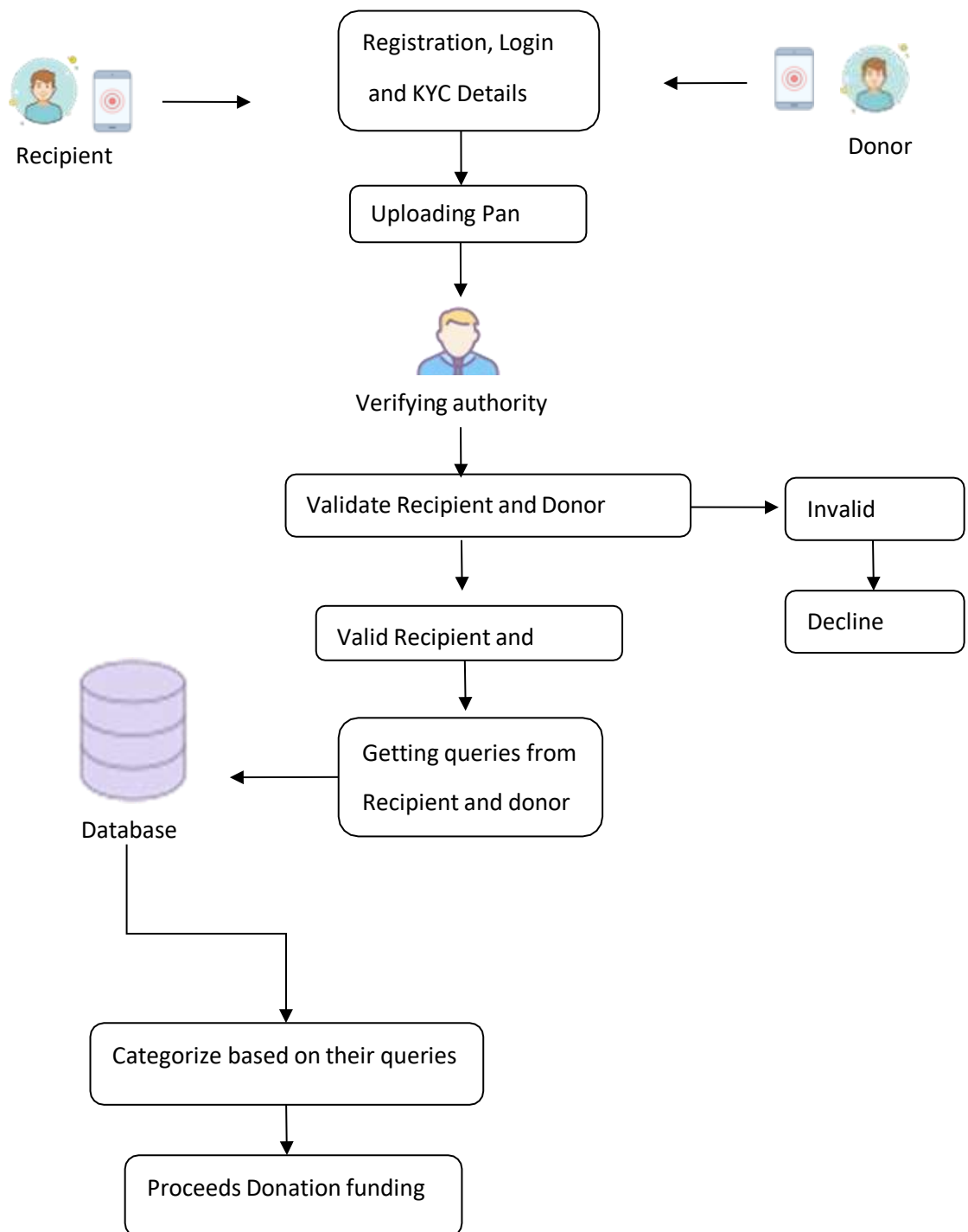


FIG: 3.1: Architecture Diagram

: SEQUENCE DIAGRAM: A Sequence diagram is a kind of interaction diagram that shows how processes operate with one another and in what order. It is a construct of Message Sequence

diagrams are sometimes called event diagrams, event sceneries, and timing diagrams.

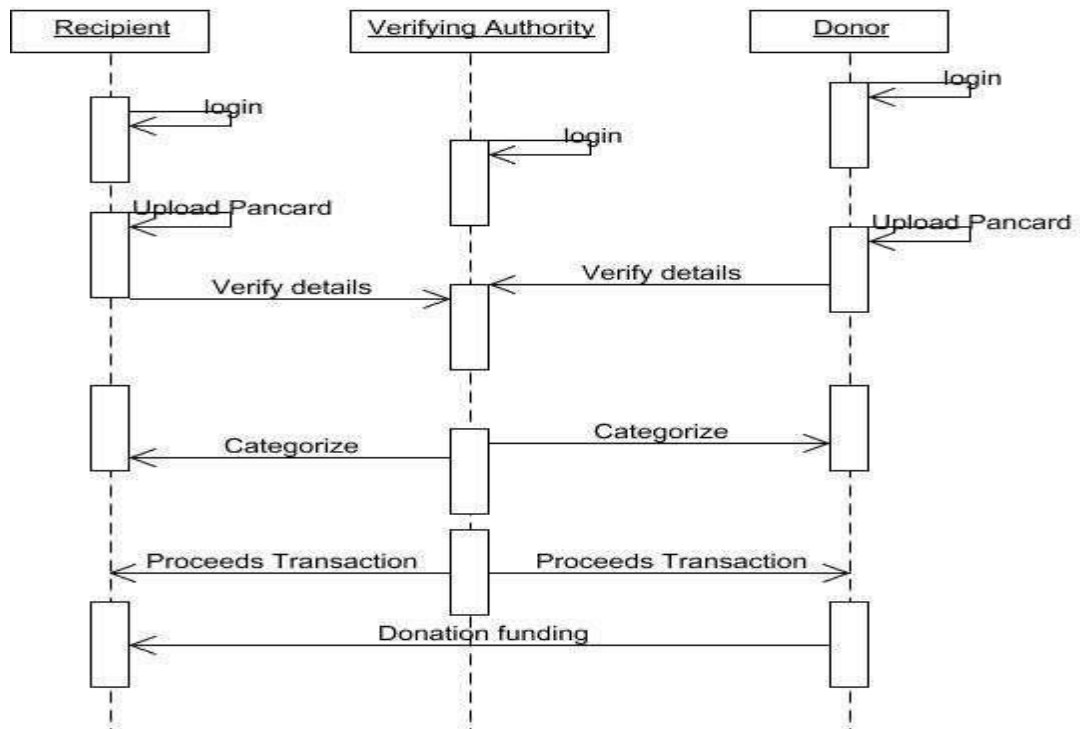


FIG: 3.2: Sequence Diagram

USE CASE DIAGRAM: Unified Modeling Language (UML) is a standardized general-purpose modeling language in the field of software engineering. The standard is managed and was created by the Object Management Group. UML includes a set of graphic notation techniques to create visual models of software-intensive systems. This language is used to specify, visualize, modify, construct, and document the artifacts of an object-oriented software-intensive system under development. A Use case Diagram is used to present a graphical overview of the functionality provided by a system in terms of actors, their goals, and any dependencies between those use cases.

Use case diagram consists of two parts:

Use case: A use case describes a sequence of actions that provided something of measurable value to an actor and is drawn as a horizontal ellipse.

Actor: An actor is a person, organization, or external system that plays a role in one or more interaction with the system.

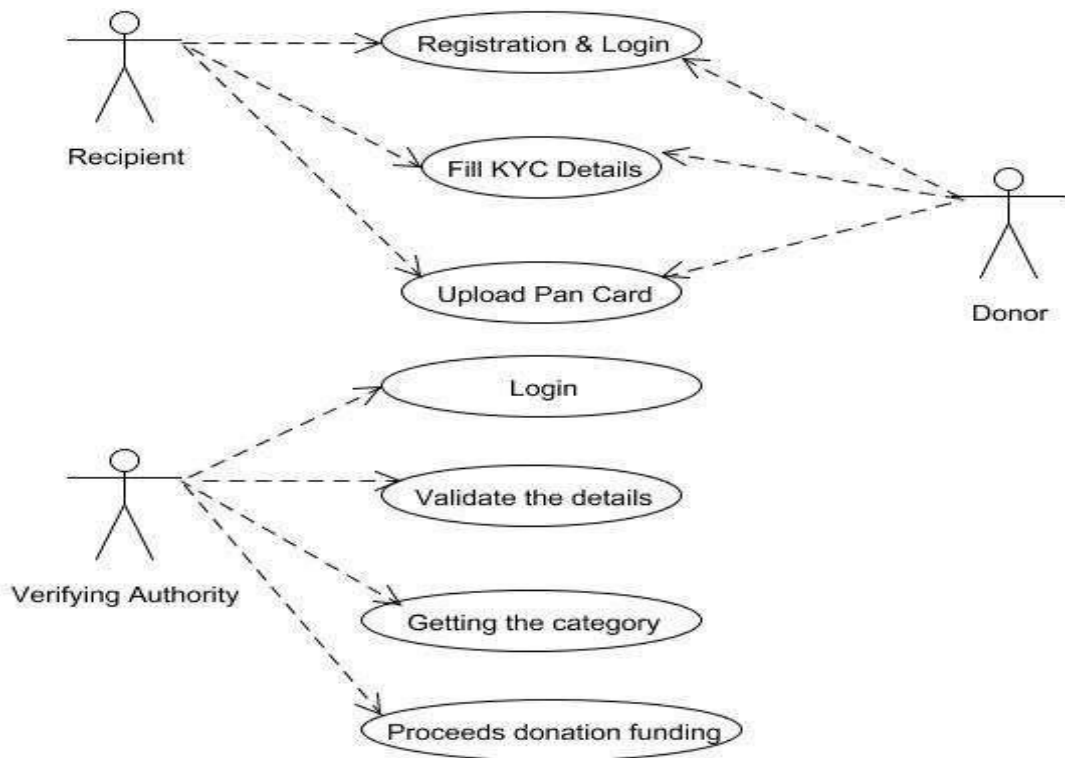


FIG: 3.3: Use Case Diagram

ACTIVITY DIAGRAM: The activity diagram is a graphical representation of workflows of stepwise activities and actions with support for choice, iteration, and concurrency. An activity diagram shows the overall flow of control. The most important shape types:

- Rounded rectangles represent activities.
- Diamonds represent decisions.
- Bars represent the start or end of concurrent activities.
- A black circle represents the start of the workflow.
- An encircled circle represents the end of the workflow.

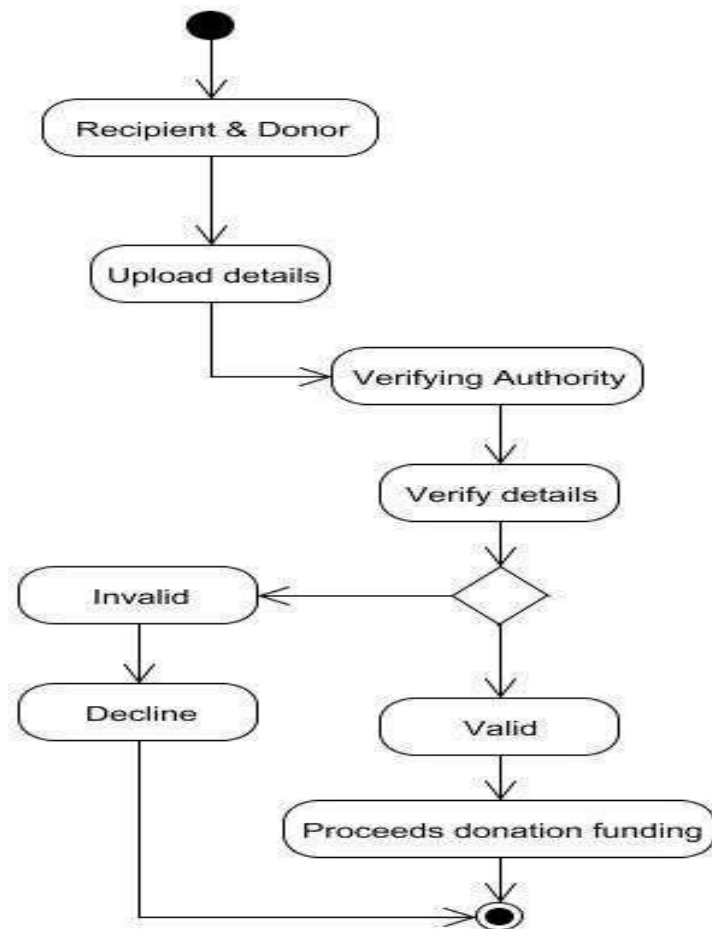


FIG: 3.4: Activity Diagram

COLLABORATION DIAGRAM: UML Collaboration Diagrams illustrate the relationship and interaction between software objects. They require use cases, system operation contracts, and domain models to already exist. The collaboration diagram illustrates messages being sent between classes and objects.

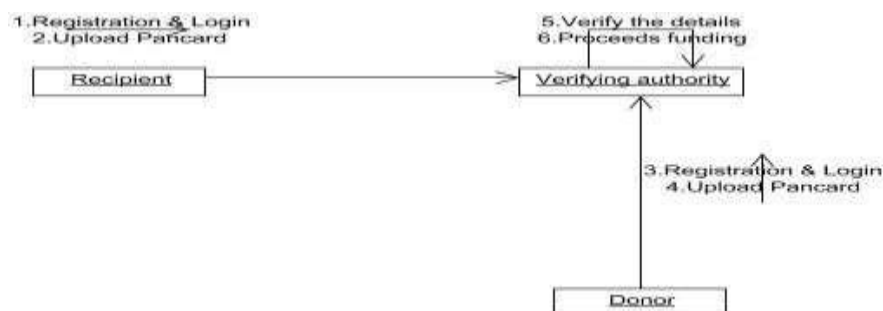
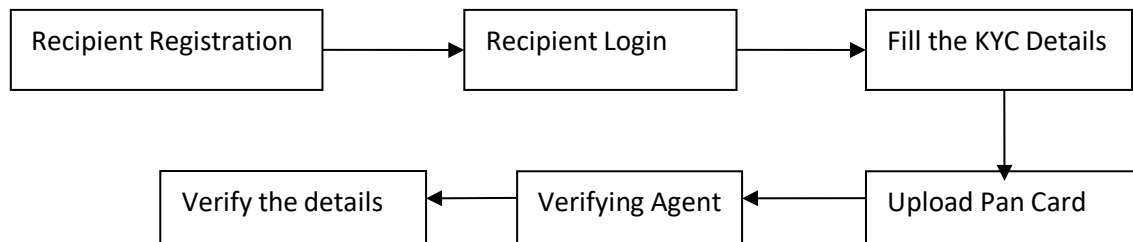


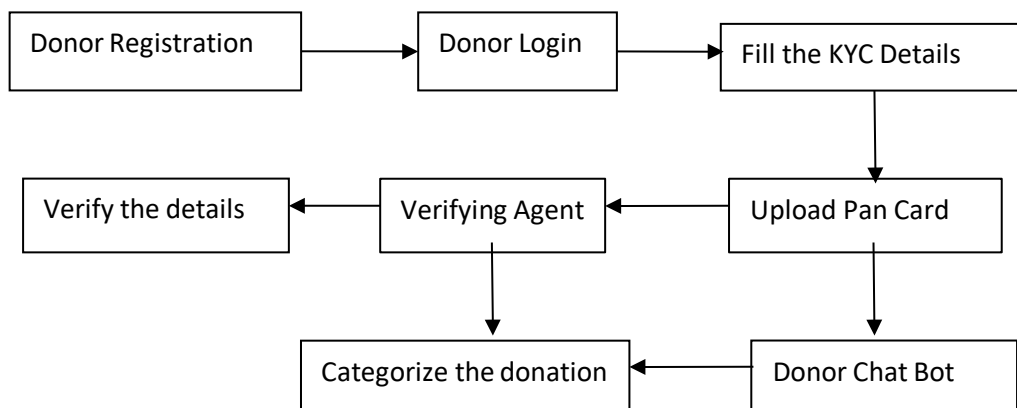
FIG: 3.5: Collaboration Diagram

DATA FLOW DIAGRAM: A Data Flow Diagram (DFD) is a graphical representation of the flow of data through an information system, modeling its aspects. It is a preliminary step used to create an overview of the system which can later be elaborated DFDs can also be used for visualization of data processing.

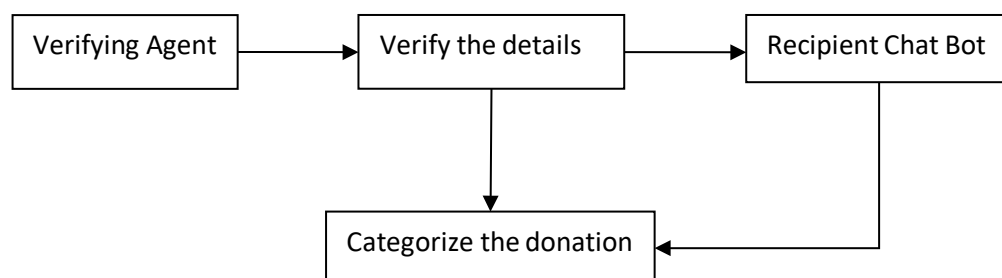
Level 0:



Level 1:



Level 2:



Level 3:

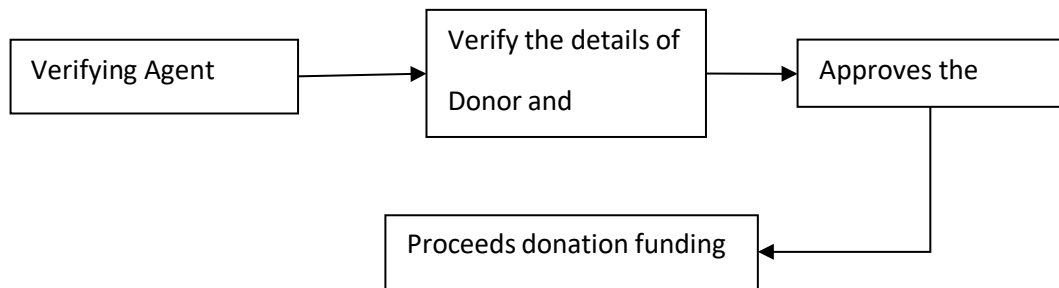


FIG: 3.6: Data Flow Diagram

CLASS DIAGRAM: A Class diagram in the Unified Modeling Language is a type of static structure diagram that describes the structure of a system by showing the system's classes, their attributes, operations (or methods), and the relationships among objects.

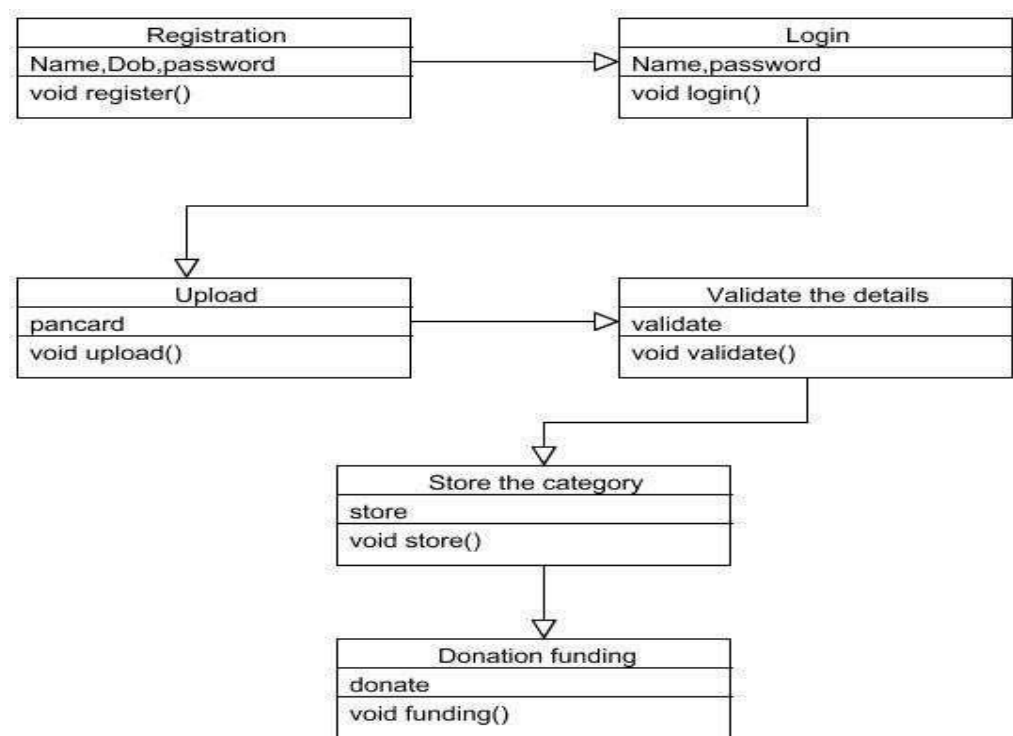


FIG: 3.7: Class Diagram

IMPLEMENTATION CONSTRAINTS AND NONFUNCTIONAL REQUIREMENTS

CONSTRAINTS IN ANALYSIS:

- Constraints as Informal Text
- Constraints as Operational Restrictions
- Constraints Integrated into Existing Model Concepts
- Constraints as a Separate Concept
- Constraints Implied by the Model Structure

CONSTRAINTS IN DESIGN:

- Determination of the Involved Classes
- Determination of the Involved Objects
- Determination of the Involved Actions
- Determination of the Require Clauses
- Global actions and Constraint Realization

CONSTRAINTS IN IMPLEMENTATION:

Hierarchical structuring of relations may result in more classes and a more complicated structure to implement. Therefore, it is advisable to transform the hierarchical relation structure to a simpler structure such as a classical flat one. It is rather straightforward to transform the developed hierarchical model into a bipartite, flat model, consisting of classes on the one hand and flat relations on the other. Flat relations are preferred at the design level for reasons of simplicity and implementation ease. There is no identity or functionality associated with a flat relation. A flat relation corresponds with the related concept of entity-relationship modeling and many object-oriented methods.

PERFORMANCE REQUIREMENTS:

The application at this side controls and communicates with the following three main general components.

- the embedded browser in charge of the navigation and accessing to the web service;
- Server Tier: The server-side contains the main parts of the functionality of the proposed architecture. The components at this tier are the following

- Web Server, Security Module, Server-Side Capturing Engine, Preprocessing Engine, Database System, Verification Engine, Output Module.

SAFETY REQUIREMENTS:

- The software may be safety-critical. If so, there are issues associated with its integrity level
- The software may not be safety-critical although it forms part of a safety-critical system. For example, the software may simply log transactions.
- If a system must be of a high integrity level and if the software is shown to be of that integrity level, then the hardware must be at least of the same integrity level.
- There is little point in producing 'perfect' code in some language if hardware and system software (in the widest sense) are not reliable.
- If a computer system is to run software of a high integrity level then that system should not at the same time accommodate software of a lower integrity level.
- Systems with different requirements for safety levels must be separated.
- Otherwise, the highest level of integrity required must be applied to all systems in the same environment.

MODULES

- Recipient Authentication
- Donor Authentication
- Recipient's Requests
- Donor's Donation Funding

3.7.1 MODULE DESCRIPTION:

A. RECIPIENT AUTHENTICATION:

The recipient has to fill the registration form with required mandatory input fields and the personal details. These details will get further verified by the government authority or the verifying agent appointed by the government.

B. DONOR AUTHENTICATION:

The donor has to fill the registration form with required mandatory input fields and the personal details. These details will get further verified by the government authority or the verifying agent appointed by the government.

C. RECIPIENT'S REQUESTS:

By using the token, generated after the completion of verifying recipient's details by the government authority. The recipient will log in only using the unique token to request money. Their requests contain the details of the category for which the recipient needs money. The recipient can view their request details and status of donation for their requests.

D. DONOR'S DONATION FUNDING:

By using the token, generated after the completion of verifying donor's details by the government authority. The donor will log in by using the unique token to donate money. Their request contains the details or the category for which the donor is willing to donate. The donor can view the history of their donations. After verifying all the details of the donor and the recipient, the verifying person will approve the details of the recipient and the donor and further allows the process of funding. After the funding process, the donor will be provided a certificate by the government. The donor will get notifications automatically to appreciate their donation funding.

CODING AND TESTING

CODING:

Once the design aspect of the system finalizes the system enters into the coding and testing phase. The coding phase brings the actual system into action by converting the design of the system into the code in a given programming language. Therefore, a good coding style has to be taken whenever changes are required it easily screwed into the system.

CODING STANDARDS:

Coding standards are guidelines for programming that focuses on the physical structure and appearance of the program. They make the code easier to read, understand, and maintain. This phase of the system implements the blueprint developed during the design phase. The coding specification should be in such a way that any programmer must be able to understand the code and can bring about changes whenever felt necessary. Some of the standard needed to achieve the above-mentioned objectives are as follows:

The program should be simple, clear, and easy to understand.

Naming conventions

Value conventions

Script and comment procedure

Message box format

Exception and error handling

NAMING CONVENTIONS

Naming conventions of classes, data members, member functions, procedures, etc., should be **self-descriptive**. One should even get the meaning and scope of the variable by its name. The conventions are adopted for an **easy understanding** of the intended message by the user. So it is customary to follow the conventions. These conventions are as follows:

Class names

Class names are problem domain equivalence and begin with a capital letter and have mixed cases.

Member Function and Data Member name

Member function and data member name begin with a lowercase letter with each subsequent letter of the new words in uppercase and the rest of the letters in lowercase.

VALUE CONVENTIONS

Value conventions ensure values for the variable at any point in time. This involves the following:

- Proper default values for the variables.
- Proper validation of values in the field.
- Proper documentation of flag values.

SCRIPT WRITING AND COMMENTING STANDARD

Scriptwriting is an art in which indentation is of utmost importance. Conditional and looping statements are to be properly aligned to facilitate easy understanding.

Comments are included to minimize the number of surprises that could occur when going through the code.

MESSAGE BOX FORMAT

When something has to be prompted to the user, he must be able to understand it properly. To achieve this, a specific format has been adopted in displaying messages to the user. They are as follows:

- X - The user has performed an illegal operation.
- ! - Information to the user.

TEST PROCEDURE:

SYSTEM TESTING

Testing is performed to identify errors. It is used for quality assurance. Testing is an integral part of the entire development and maintenance process. The goal of the testing during phase is to verify that the specification has been accurately and completely incorporated into the design, as well as to ensure the correctness of the design itself. For example, the design must not have any logic faults in the design is detected before coding commences, otherwise, the cost of fixing the faults will be considerably higher as reflected. Detection of design faults can be achieved utilizing inspection as well as a walkthrough.

Testing is one of the important steps in the software development phase. Testing checks for the errors, as a whole of the project testing involves the following test cases:

- Static analysis is used to investigate the structural properties of the Source code.
- Dynamic testing is used to investigate the behavior of the source code by executing the program on the test data.

TEST DATA AND OUTPUT:

UNIT TESTING

Unit testing is conducted to verify the functional performance of each modular component of the software. Unit testing focuses on the smallest unit of the software design (i.e.), the module. The white-box testing techniques were heavily employed for unit testing.

FUNCTIONAL TESTS

Functional test cases involved exercising the code with nominal input values for which the expected results are known, as well as boundary values and special values, such as logically related inputs, files of identical elements, and empty files.

Three types of tests in the Functional test:

- Performance Test
- Stress Test
- Structure Test

PERFORMANCE TEST/

It determines the amount of execution time spent in various parts of the unit, program throughput, and response time, and device utilization by the program unit.

STRESS TEST

Stress Test is those tests designed to intentionally break the unit. A Great deal can be learned about the strength and limitations of a program by examining how a programmer in which program unit breaks.

STRUCTURED TEST

Structure Tests are concerned with exercising the internal logic of a program and traversing particular execution paths. How the White-Box test strategy was employed to ensure that the test cases could Guarantee that all independent paths within a module have been exercised at least once.

- Exercise all logical decisions on their true or false sides.
- Execute all loops at their boundaries and within their operational bounds.
- Exercise internal data structures to assure their validity.
- Checking attributes for their correctness. Handling end of file condition, I/O errors, buffer problems and textual errors in the output information

INTEGRATION TESTING

Integration testing is a systematic technique for constructing the program structure while at the same time conducting tests to uncover errors associated with interfacing. i.e., integration testing is the complete testing of the set

of modules that makes up the product. The objective is to take untested modules and build a program structure tester that should identify critical modules. Critical modules should be tested as early as possible. One approach is to wait until all the units have passed testing, and then combine them and then tested. This approach is evolved from unstructured testing of small programs. Another strategy is to construct the product in increments of tested units. A small set of modules are integrated and tested, to which another module is added and tested in combination. And so on. The advantages of this approach are that interface dispenses can be easily found and corrected.

The major error that was faced during the project is linking error. When all the modules are combined the link is not set properly with all support files. Then we checked out for interconnection and the links. Errors are localized to the new module and its intercommunications. The product development can be staged, and modules integrated into as they complete unit testing. Testing is completed when the last module is integrated and tested.

SOFTWARE DEVELOPMENT PROCESS:

LIFE CYCLE USED TO DEVELOP THIS PROJECT:

Life cycle used SDLC Systems Development Life Cycle (SDLC), or *Software Development Life Cycle*, in systems engineering and software engineering relates to the process of developing systems, and the models and methodologies, that people use to develop these systems, generally computer or information systems. In software engineering, this SDLC concept is developed into all kinds of software development methodologies, the framework that is used to structure, plan, and control the process of development.

OVERVIEW OF SDLC

Systems Development Life Cycle (SDLC) is any logical process used by a systems analyst to develop an information system, including requirements, validation, training, and user ownership. An SDLC should result in a high-quality system that meets or exceeds customer expectations, within time and cost estimates, works effectively and efficiently in the current and planned Information Technology infrastructure, and is cheap to maintain and cost-effective to enhance.

Computer systems have become more complex and usually (especially with the advent of Service-Oriented Architecture) link multiple traditional systems often supplied by different software vendors. To manage this, several system development life cycle (SDLC) models have been created: waterfall, fountain, spiral, build and fix, rapid prototyping, incremental, and synchronize and stabilize. Although in the academic sense, SDLC can be used to refer to various models, SDLC is typically used to refer to a waterfall methodology.

In project management, a project has both a life cycle and a "systems development life cycle" during which several typical activities occur. The project life cycle (PLC) encompasses all the activities of the project, while the systems development life cycle (SDLC) is focused on accomplishing the product requirements.

SYSTEMS DEVELOPMENT PHASES:

Systems Development Life Cycle (SDLC) adheres to important phases that are essential for developers, such as planning, analysis, design, and implementation, and are explained in the section below. There are several Systems Development Life Cycle Models in existence. The oldest model, that was originally regarded as "the Systems Development Life Cycle" is the waterfall model: a sequence of stages in which the output of each stage becomes the input for the next. These stages generally follow the same basic steps but many different waterfall methodologies give the steps different names and the number of steps seems to vary between 4 and 7. There is no definitively correct Systems Development Life Cycle model, but the steps can be characterized and divided into several steps.

- Initiation
- System Concept Development
- Planning Requirement Analysis
- Design
- Development
- Integration Test
- Implementation
- Operation & Maintenance

CHAPTER 4

RESULTS AND DISCUSSION

TOMCAT WEB APPLICATION MANAGER:

This is packaged with the Tomcat server and provides us with the basic functionality we need to manage our deployed web application.

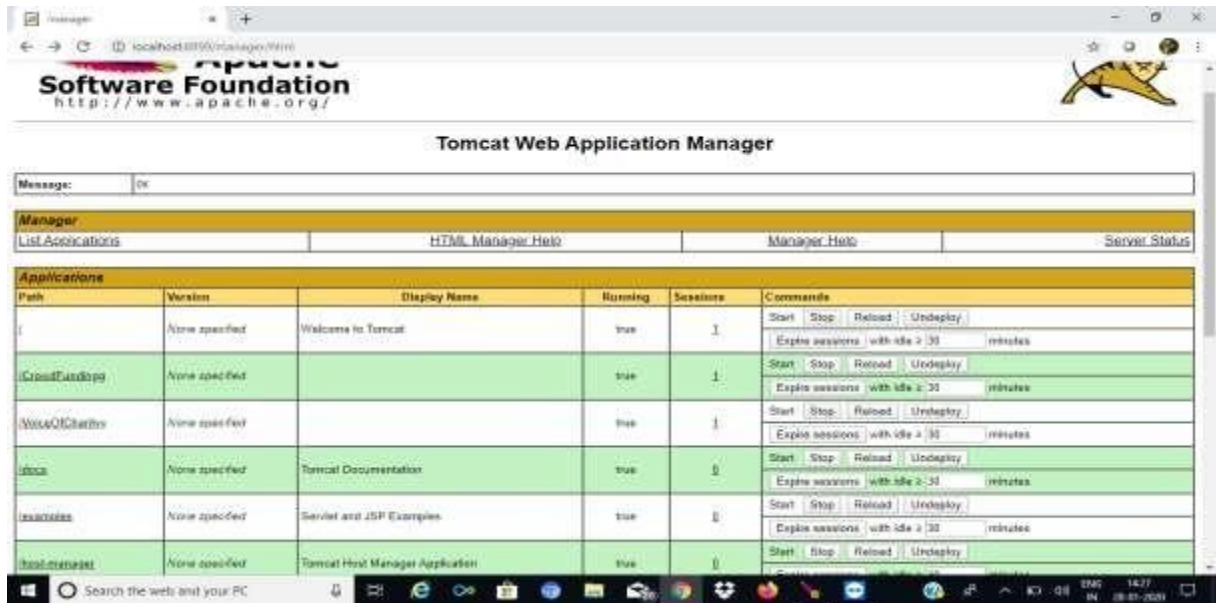


Fig: 4.1: Tomcat Web Application Manager

REGISTRATION PAGE

This is the client-side Registration page of the Online Donation-Based Crowdfunding. The registration page includes the information of the recipient who wants to register.

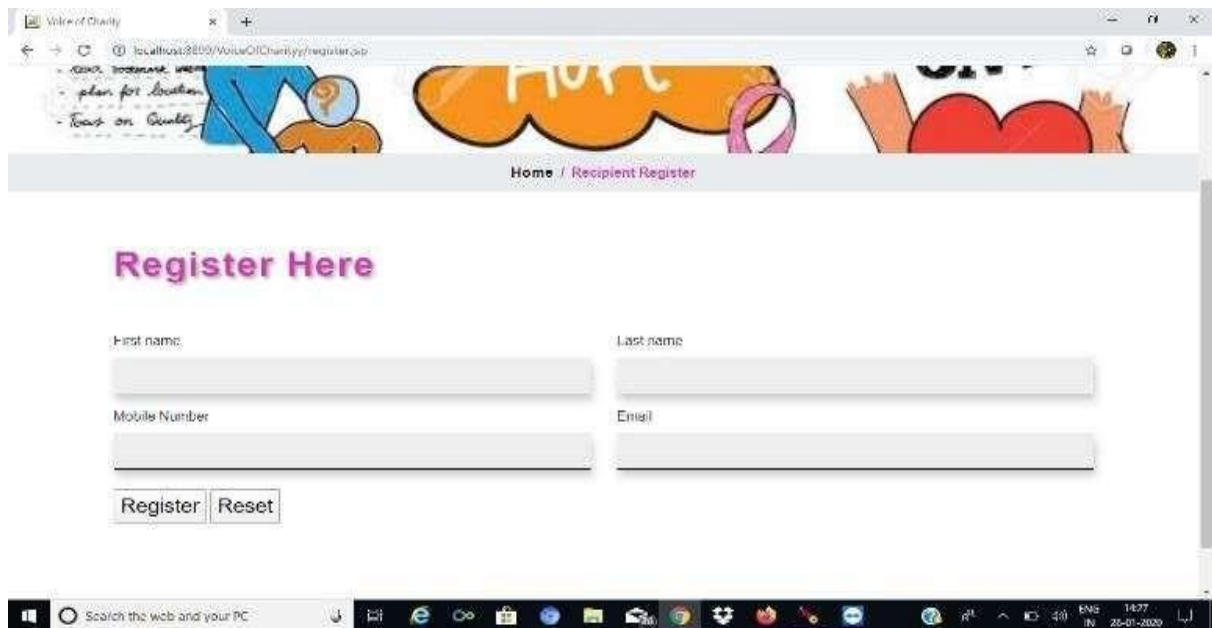


Fig: 4.2: Registration page for user

ADMIN PAGE

This is the admin page of the project. Admin has the all authorities to change, modify, and verify the details.

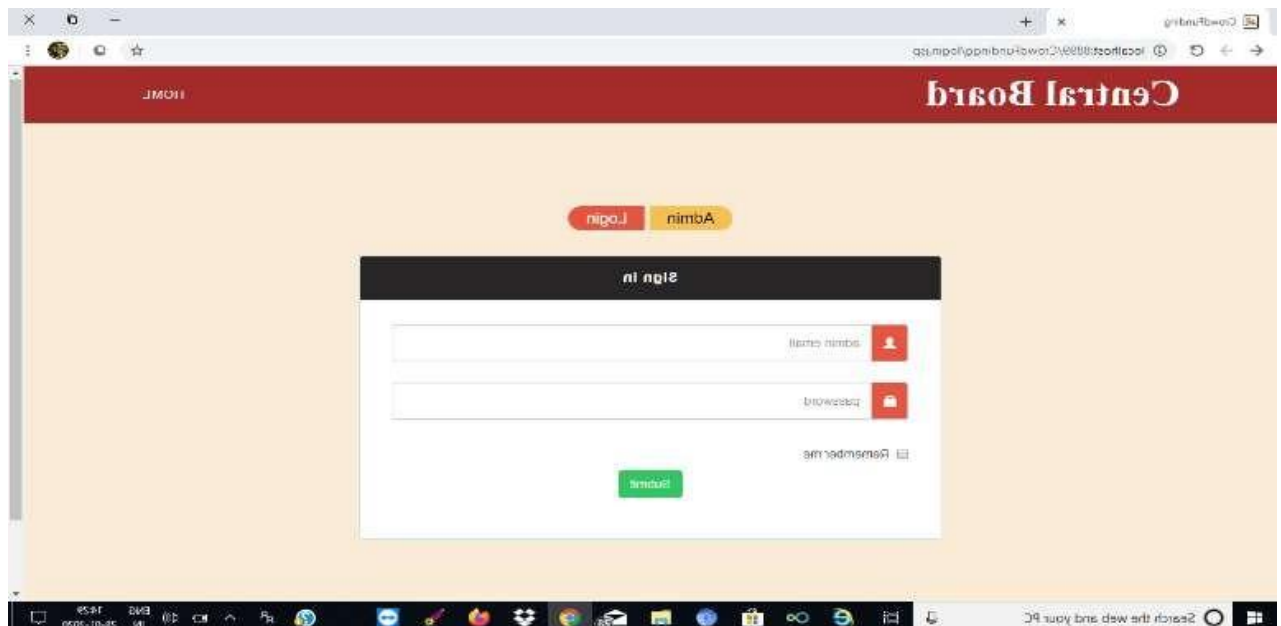


Fig: 4.3: Admin Page

AUTHENTICATION MAIL

This is the mail received by the donor or user after verifying the details. This mail includes a login password.

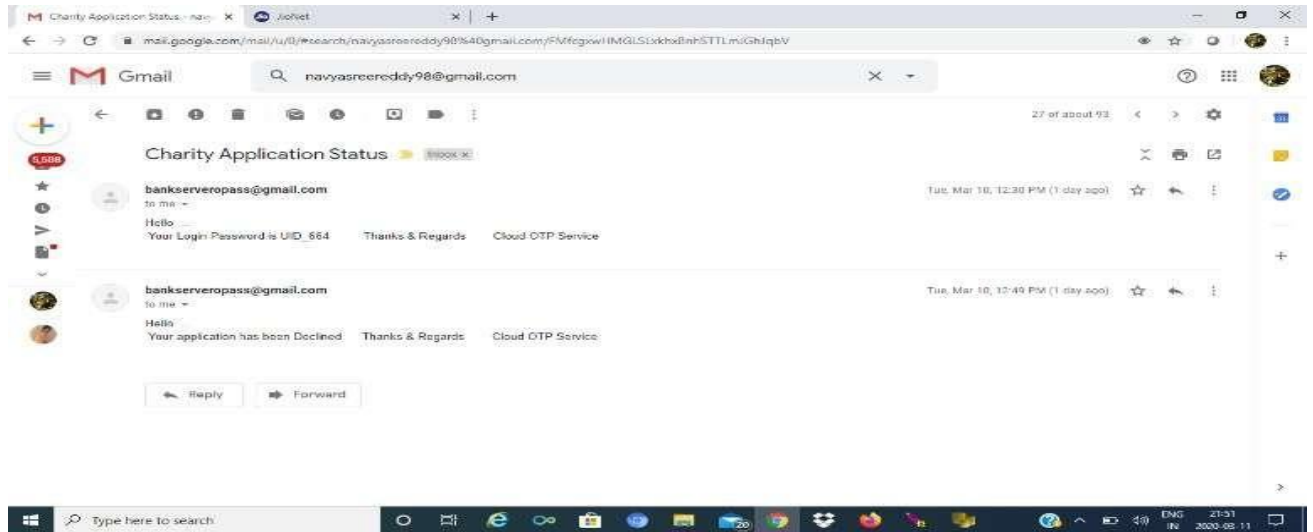


Fig: 4.4: Authentication Mail

GROUPING OF CATEGORIES

This page includes the details of the user's category. Based on the Donor selection of categories it will group the details.

Voice of Charity

CrowdFunding

localhost:8080/VoiceOfCharity/Chat?educategory=Education&educategory01=Educate+the+children&educategory11=To+buy+school+uniforms&gender=Fem...

Recipient Requests

Recipient's in Education category requests

ID	Name	Image	Email	Expected date for money need	Required amount of money	Pay
UID_850	Debjyoti		Debjyoti1@gmail.com	2020-04-22	360 to go	365 Lend Now
UID_1918	Debobrata		Debobrata@gmail.com	2020-06-17	48000 to go	Lend Now
UID_1392	Arindam		Arindam@gmail.com	2020-09-02	37000 to go	Lend Now
UID_834	Shenoy		Shenoy@gmail.com	2020-08-31	50000 to go	Lend Now

Recipient's with age Less than 30

ID	Name	Image	Email	Expected date for money need	Required amount of money	Pay
UID_850	Debjyoti		Debjyoti1@gmail.com	2020-04-22	20000 to go	Lend Now

Fig 4.5: Grouping of Categories

NOTIFICATION

This is the notification mail received by the donor on his birthday, to remind him/her to donate.

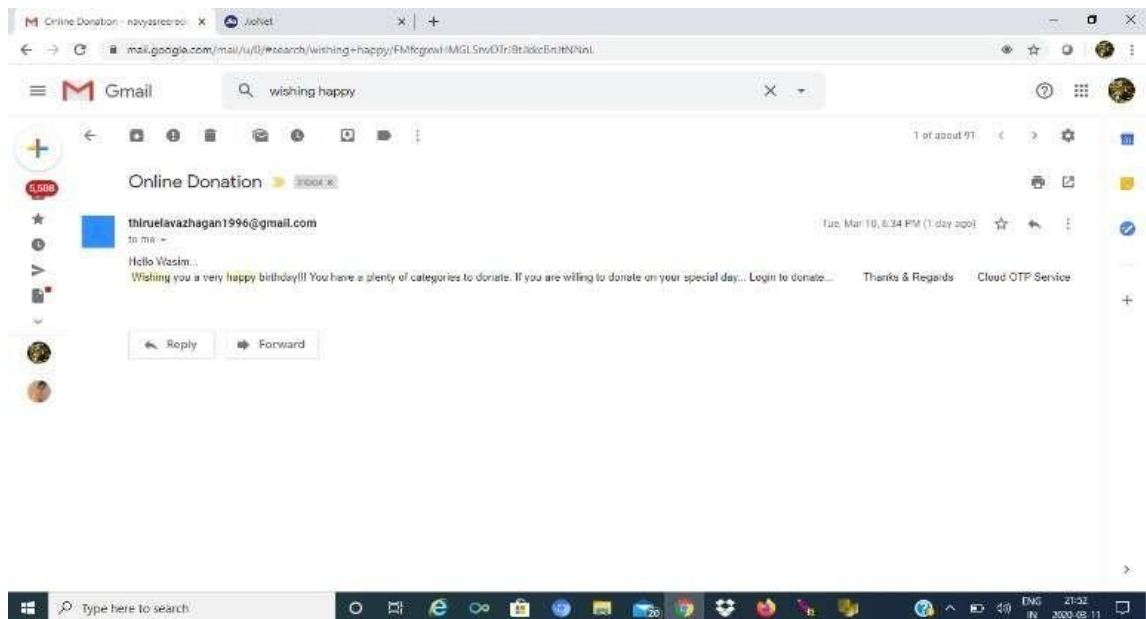


Fig: 4.6: Notification

Bank Application:

This is the Bank Application.



Fig: 4.7: Bank Application

CERTIFICATE:

This is the certificate provided to the donor.



Fig: 4.8: Certification

CHAPTER 5

CONCLUSION AND FUTURE WORK

CONCLUSION

In the proposed system, using optical character reader all the details of donor and recipient are verified automatically and it provides authentication by sending unique-id through the mail. After the completion of the donation process, it will generate a certificate in the name of the donor. This system automatically notifies the donors on any particular day, to improve their sequence of donation.

FUTURE WORK

In the future, we will smear and progress our models for other scenarios, such as dated charity activities, exclusively useful to present data with modeling tasks in some additional fields, such as device disappointment modeling in engineering, predicting student dropout, and seeking the career development.

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APPENDIX

A.SAMPLE CODE

```
<!DOCTYPE html>
<html lang="zxx">

<head>
  <title>CrowdFunding</title>
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <meta http-equiv="Content-Type" content="text/html; charset=utf-8" />
  <meta name="keywords" content="Chronicle Responsive web template,
Bootstrap Web Templates, Flat Web Templates, Android Compatible web
template,
      SmartPhone Compatible web template, free WebDesigns for Nokia,
Samsung, LG, Sony Ericsson, Motorola web design" />
  <script>
    addEventListener("load", function () {
      setTimeout(hideURLbar, 0);
    }, false);

    function hideURLbar() {
      window.scrollTo(0, 1);
    }
  </script>
  <!-- Custom Theme files -->
  <link href="css/bootstrap.css" type="text/css" rel="stylesheet" media="all">
  <!-- shop css -->
  <link href="css/shop.css" type="text/css" rel="stylesheet" media="all">
  <link href="css/style.css" type="text/css" rel="stylesheet" media="all">
  <!-- font-awesome icons -->
  <link href="css/font-awesome.css" rel="stylesheet">
  <!-- //Custom Theme files -->
  <!-- online-fonts -->
  <!-- logo -->
```

```

</head>

<div id="home">
  <!-- header -->
  <!-- navbar -->
  <nav class="navbar navbar-default navbar-fixed-top">
    <div class="main-nav">
      <div class="container">

        <div class="navbar-header page-scroll">
          <button type="button" class="navbar-toggle" data-toggle="collapse"
data-target=".navbar-ex1-collapse">
            <span class="sr-only">Chronicle</span>
            <span class="icon-bar"></span>
            <span class="icon-bar"></span>
            <span class="icon-bar"></span>
          </button>
          <h1>
            <a class="navbar-brand" href="javascript:void(0)" style="font-
family: serif"><b>Crowdfunding</b></a>
          </h1>
          <a href="StudentGraph?id" ></img></a>
        </div>
        <!-- Collect the nav links, forms, and other content for toggling -->
        <div class="collapse navbar-collapse navbar-ex1-collapse nav-right">
          <ul class="nav navbar-nav navbar-left cl-effect-15">
            <!-- Hidden li included to remove active class from about link
when scrolled up past about section -->
            <li class="hidden">
              <a class="page-scroll" href="#page-top"></a>
            </li>

```



```
<!-- //banner-text -->
</div>
```

```
</div>
```

```
<div class="clearfix"></div>
```

```
<!-- //about ends here -->
```

```
<div class="cpy-right">
  <p>© 2019 All rights reserved</p>
</div>
```

```
<!-- //home -->
<!-- js -->
<script src="js/jquery-2.2.3.min.js"></script>
<!-- //js -->
<!--search jQuery-->
<script src="js/main.js"></script>
<!--search jQuery-->
<!-- cart-js -->
<script src="js/minicart.js"></script>
<script>
  chr.render();

  chr.cart.on('new_checkout', function (evt) {
    var items, len, i;

    if (this.subtotal() > 0) {
      items = this.items();

      for (i = 0, len = items.length; i < len; i++) {}
    }
  });
```

```

</script>
<!-- //cart-js -->
<!-- Scrolling Nav JavaScript -->
<script src="js/scrolling-nav.js"></script>
<!-- //fixed-scroll-nav-js -->
<!-- dropdown nav -->
<script>
    $(document).ready(function () {
        $(".dropdown").hover(
            function () {
                $(''.dropdown-menu', this).stop(true, true).slideDown("fast");
                $(this).toggleClass('open');
            },
            function () {
                $(''.dropdown-menu', this).stop(true, true).slideUp("fast");
                $(this).toggleClass('open');
            }
        );
    });
</script>
<!-- //dropdown nav -->
<!-- start-smooth-scrolling -->
<script src="js/move-top.js"></script>
<script src="js/easing.js"></script>
<script>
    jQuery(document).ready(function ($) {
        $(".scroll").click(function (event) {
            event.preventDefault();

            $('html,body').animate({
                scrollTop: $(this.hash).offset().top
            }, 1000);
        });
    });

```

```

</script>
<!-- //end-smooth-scrolling -->
<!-- smooth-scrolling-of-move-up -->
<script>
    $(document).ready(function () {
        /*
        var defaults = {
            containerID: 'toTop', // fading element id
            containerHoverID: 'toTopHover', // fading element hover id
            scrollSpeed: 1200,
            easingType: 'linear'
        };
        */

        $.UlToTop({
            easingType: 'easeOutQuart'
        });

    });
</script>
<script src="js/SmoothScroll.min.js"></script>
<!-- //smooth-scrolling-of-move-up -->
<!-- about bottom grid Numscroller -->
<script src="js/numscroller-1.0.js"></script>
<!-- //about bottom grid Numscroller -->
<!-- Bootstrap core JavaScript
===== -->
<!-- Placed at the end of the document so the pages load faster -->
<script src="js/bootstrap.js"></script>
</body>
</html>

```

B. SCREENSHOTS

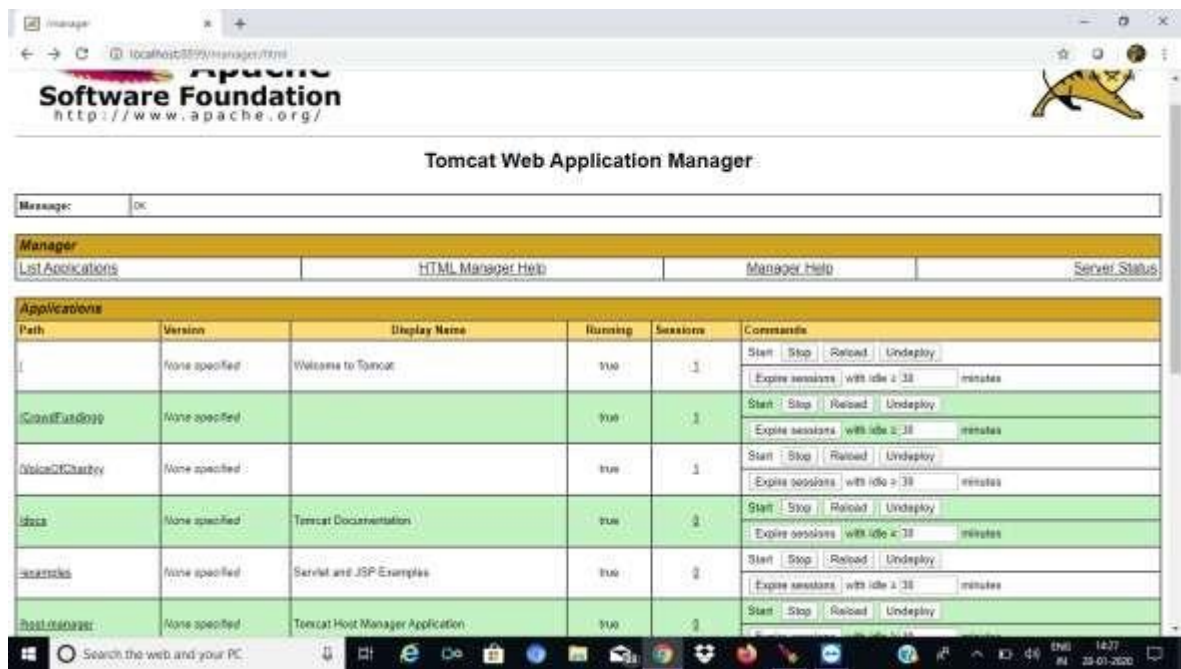


Figure 1 Tomcat Web Application Manager

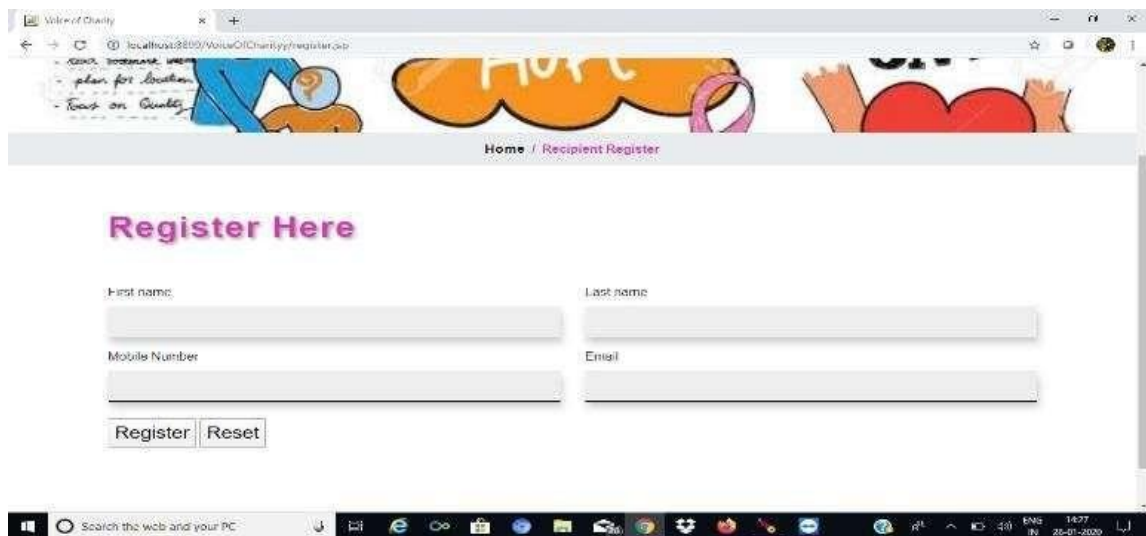


Figure 2 Registration page for User

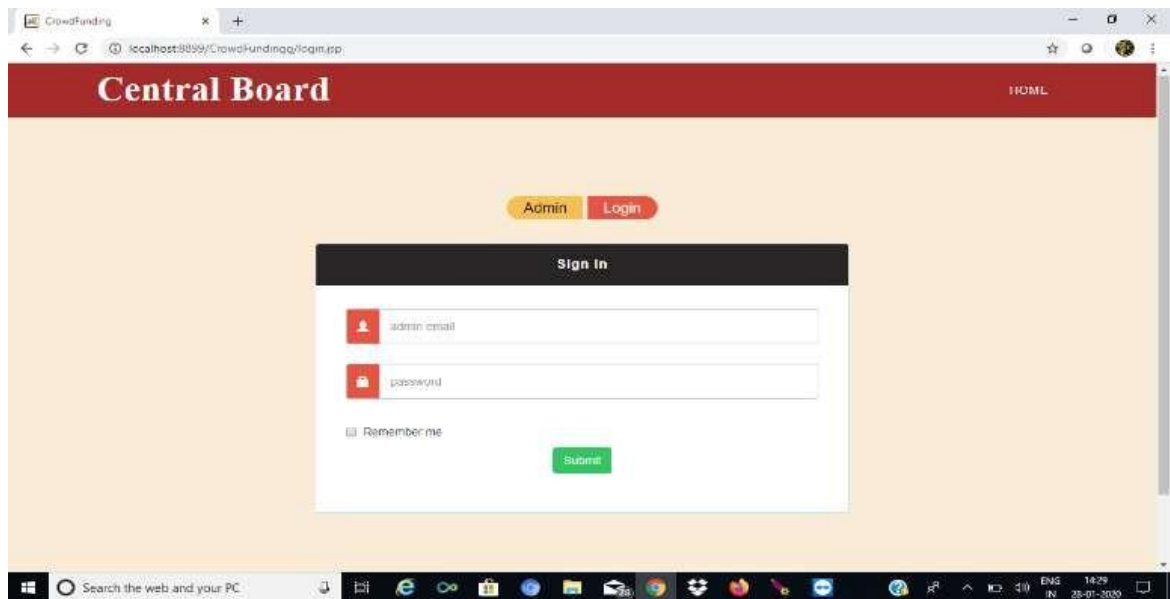


Figure 3 Admin Page

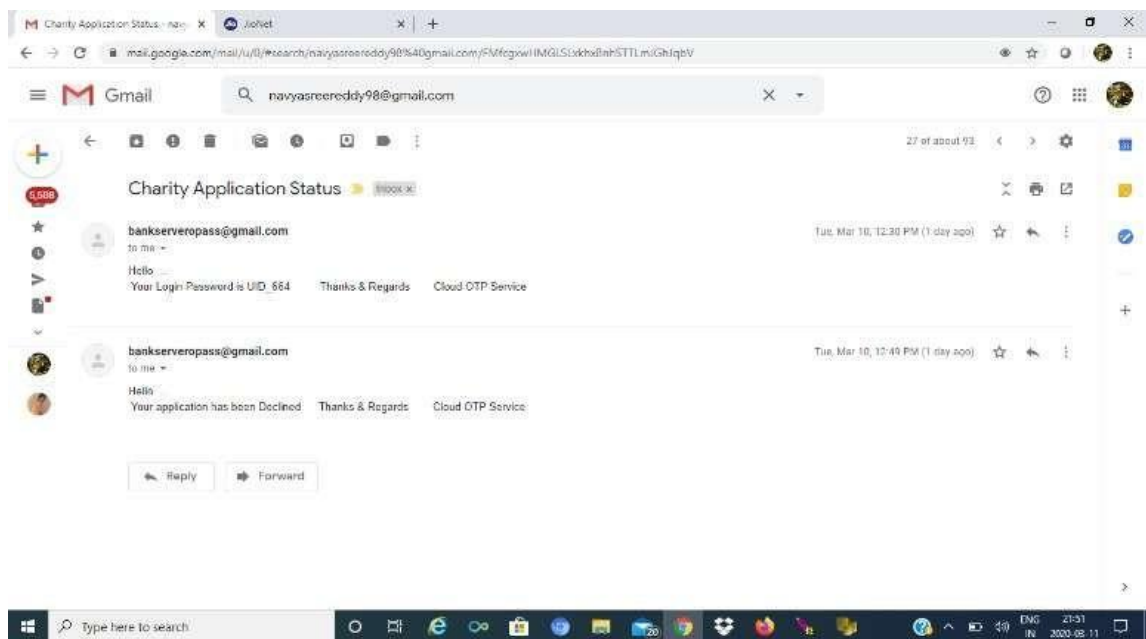


Figure 4 Authentication Mail

Recipient Requests
Recipient's in Education category requests

ID	Name	Image	Email	Expected date for money need	Required amount of money	Pay
UID_850	Debjyoti		Debjyoti1@gmail.com	2020-04-22	360 to go	365 Lend Now
UID_1918	Debobrata		Debobrata@gmail.com	2020-06-17	48000 to go	Lend Now
UID_1392	Arindam		Arindam@gmail.com	2020-09-02	37000 to go	Lend Now
UID_834	Shenoy		Shenoy@gmail.com	2020-08-31	50000 to go	Lend Now

Recipient's with age Less than 30

ID	Name	Image	Email	Expected date for money need	Required amount of money	Pay
UID_850	Debjyoti		Debjyoti1@gmail.com	2020-04-22	20000 to go	Lend Now

Figure 5 Grouping of Categories



Figure 6 Certification

PAPER PUBLICATION WITH PLAGIARISM REPORT

ONLINE DONATION BASED CROWDFUNDING

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Abstract—Charity is an organization set up to provide help and raise money for those in need. It is generosity and helpfulness, especially toward the needy or suffering. Crowdfunding mechanism concluded persons or administrations who participate in (or contribute to). Crowdfunding schemes in instead for a possible return or reward. Participating in this method can be perilous, so make sure you know what you're doing. So, we are providing trustworthy crowdfunding through the government which is the funding of a project by a large number of supporters who contribute a small amount. Only authenticated recipients and the donor can request and donate money here. This system uses the K-means clustering algorithm to cluster the similar data from a large scale of datasets. After the completion of the transaction process, it will generate a certificate on the name of the donor. This system helps in automatically notifying the donors according to their interest in a donation on any particular day, for example, on their birthday, and appreciate the donors to further improve their sequence of donation.

Keywords: Crowdfunding, K-means clustering algorithm, Optical Character Recognition. Authentication, Random number generation algorithm, simple mail transfer protocol (SMTP), scheduler algorithm.

I INTRODUCTION

Crowdfunding is a practice of raising funds from people to support this project which has brought new change to help others, i.e., making it simple to donate anything to help needy across the world. Online Donation-based crowdfunding is the most preferred mode of fundraising. Crowdfunding through online platforms knows no boundaries, and has the potential to go viral. There is difficulty of high donor attrition i.e., many people give only very few times within the short lifecycle and then leave. Thus, it is a task to examine the factors and then later forecast donor behavior. In this process, presenting a detailed study on the examination of donation repetition and donor

maintenance to predict the donor's interest in a donation. Specifically, it proposes a model, which has the details of the recipient, actual donor, and the verifying person. After the donation process, every donor will get a proper donation certificate approved by the government. The experimental results will demonstrate the individual's interest in the donation and appreciate them to donate more in their future with a properly secured transaction with the support of the government.

II RELATED WORK

Online donation-based crowdfunding^[3] has carried new existence to aid organizations by seeking minor regulatory donations from troop contributors to help the needy people or by ideas. Though a decisive problem for troop funding platforms as well as outmoded help is the problematic of extreme donor slow destruction, i.e., many donors contribute only sometimes within a short lifespan and leave. Thus, it is crucial work to study the issues and then expect the donor's actions. Particularly, we concentrate on two kinds of communication actions, e.g., *contribution repetition* (whether one supporter will make contributions at some period shares in the future) and *supporter maintenance* (whether she will stay on the funding policy till the upcoming time). However, this tricky situation has not been healthy exposed due to several fields and practical challenges, such as the *diverse impact*, the *significance of the two kinds of actions*, and the *editing spectacle of maintenance accounts*. In this work, we have an attentive training on contribution repetition and supporter maintenance by the support of huge-scale interactive information collected of crowdfunding. Precisely, we recommend a Joint Deep Survival model, i.e., JDS, which can mix diverse structures, e.g., donor objects, tasks just donated to, communal associates, to jointly model the contribution repetition and supporter maintenance

subsequently these two sorts of behavioral events are extremely applicable. Also, we classical the *editing* Online peer-to-peer^[6](P2P) offering is an evolving treasure-managing facility for persons, which lets creditors to straight offer and participate on the schedules formed by borrowers without going through any outdated financial peace corps spectacle and requirement relations of dissimilar actions from the existing investigation opinion by untrustworthy multiple progressive limitations and integrating them into the unbiased roles. Finally, we manner wide-ranging study and justification trials with bulky-measure information collected from Kiva.org. The untried outcomes prove the accomplishment of our planned representations for scrutinizing and forecasting the contribution reappearance and donor maintenance in crowdfunding.

III SYSTEM ARCHITECTURE

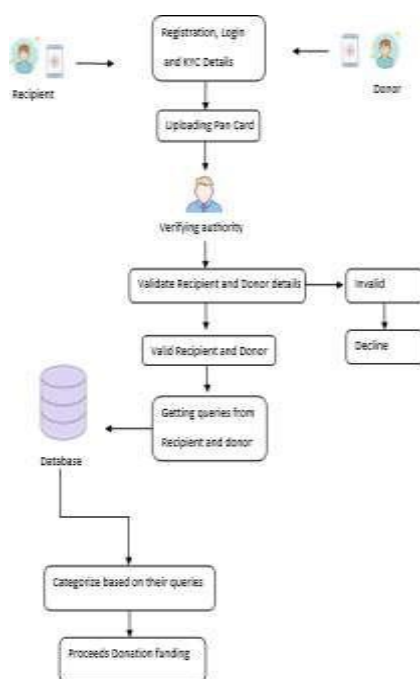


Figure 3.1 Outline of the Proposed System

In this work, the client and the donor have to fill their details which will be verified by the third party, the verifying agent appointed by the government. The verifying agent will accept the details by verifying their

details and provide a unique password to each user and donor through the mail. Proceeds the secured transaction from the donors to the clients. This system uses the clustering algorithm to filter the data from a large scale of datasets and uses the K-means clustering algorithm for clustering similar data from a large dataset. After completion of the transaction process, it will a certificate on the name of the donor. This system will automatically notify the donors on any particular day, for example, on their birthday, and appreciate the donors to further improve their sequence of donation.

IV ALGORITHM USED

1.K-MEANS CLUSTERING: K-means is the meekest unsupervised erudition algorithms that resolve the well-known grouping problem.

Step 1: Initialization the initial item k-means prepares, is casually take K samples (data points) from the dataset (the 4 green points) as original centroids and that's basically because it does not identify up till now where the middle of each cluster is. (a centroid is the center of a cluster).

Step 2: Cluster Obligation then, all the data points that are the nearby (alike) to a centroid will generate a cluster. If we're using the Euclidean distance between data points and all centroid, a conservative stroke is tired among two centroids, then a vertical bisector (borderline) splits this stroke into two clusters.

Step 3: Transfer the centroid now, we take original clusters, that essential midpoint. A centroid's new responsibility is going to be the mean of all the samples in a cluster.

We'll keep recapping steps 2 and 3 up till the centroids stop affecting, in other words, the K-means algorithm is joined.

2.OCR (OPTICAL CHARACTER RECOGNITION) is the usage of knowledge to discriminate written or handwritten script letterings exclusive numerical pictures of physical forms, such as a perused paper text. OCR is used to recite a written text. It images the script

optically, letter by letter, changes them into machine-understandable code, and stores the text on the organization's memory.

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V IMPLEMENTATION

- A. **Recipient Authentication:**
The recipient has to fill the registration form with required mandatory input fields and the personal details. These details will get further verified by the government authority or the verifying agent appointed by the government.
- B. **Donor Authentication:**
The donor has to fill the registration form with required mandatory input fields and the personal details. These details will get further verified by the government authority or the verifying agent appointed by the government.
- C. **Recipient's Requests:**
By using the token, generated after the completion of verifying recipient's details by the government authority. The recipient will log in only using the unique token to request money. Their requests contain the details of the category for which the recipient needs money. The recipient can view their request details and status of donation for their requests.
- D. **Donor's Donation Funding:**
By using the token, generated after the completion of verifying donor's details by the government authority. The donor will log in by using the unique token to donate money. Their request contains the details or the

category for which the donor is willing to donate. The donor can view the history of their donations. After verifying all the details of the donor and the recipient, the verifying person will approve the details of the recipient and the donor and further allows the process of funding. After the funding process, the donor will be provided a certificate by the government. The donor will get notifications automatically to appreciate their donation funding

VI RESULTS AND DISCUSSION

REGISTRATION PAGE:

This is the client-side Registration page of the Online Donation-Based Crowdfunding. The registration page includes the information of the recipient who wants to register.

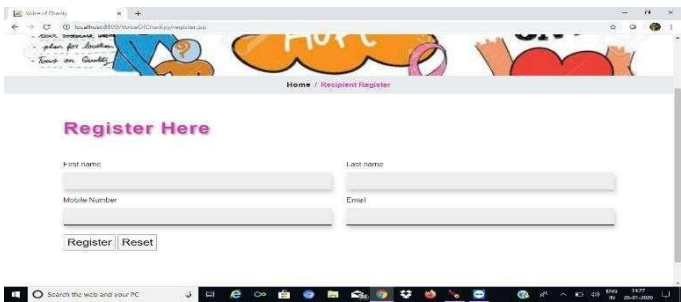


Figure 6.1: Registration page for user

ADMIN PAGE: This is the admin page of the project. Admin has the all authorities to change, modify, and verify the details.

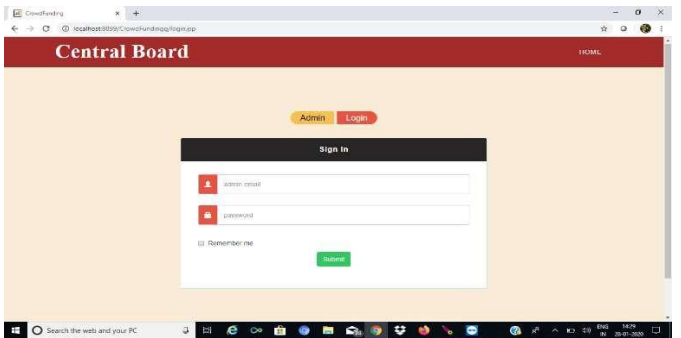


Figure 6.2: Admin Page

AUTHENTICATION MAIL:

This is the mail received by the donor or user after verifying the details. This mail includes a login password.

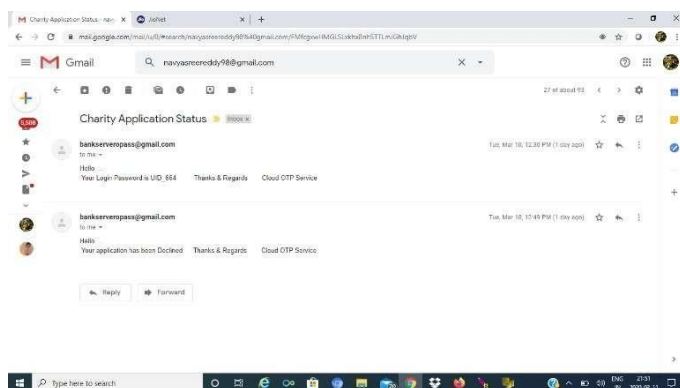


Figure 6.3: Authentication Mail

GROUPING OF CATEGORIES:

This page includes the details of the user's category. Based on the Donor selection of categories it will group the details.

Recipient Requests						
Recipient's in Education category requests						
ID	Name	Image	Email	Expected date for money need	Required amount of money	Pay
UID_850	Debjyoti		Debjyoti1@gmail.com	2020-04-22	360 to go	365 Lend Now
UID_1918	Debobrata		Debobrata@gmail.com	2020-06-17	48000 to go	Lend Now
UID_1292	Arindam		Arindam@gmail.com	2020-09-02	37000 to go	Lend Now
UID_814	Shreyo		Shreyo@gmail.com	2020-08-31	50000 to go	Lend Now
Recipient's with age Less than 30						
ID	Name	Image	Email	Expected date for money need	Required amount of money	Pay
UID_814	Shreyo		Shreyo@gmail.com	2020-04-22	20000 to go	Lend Now

Figure 6.4: Grouping of Categories

6.4 NOTIFICATION:

This is the notification mail received by a donor on his birthday, to remind him/her to donate.

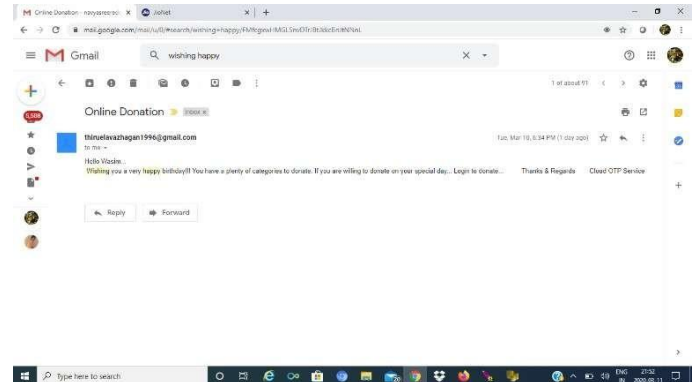


Figure 6.5: Notification

6.6 CERTIFICATE:

This is the certificate provided to the donor.



Figure 6.6: Certification

VII CONCLUSION

In the proposed system, using optical tesseract reader all the details of donor and recipient are verified automatically and it provides authentication by sending unique-id through the mail. After the completion of the donation process, it will generate a certificate in the name of the donor. This system automatically notifies the donors on any particular day, to improve their sequence of donation.

FUTURE WORK

In the future, we resolve smear and progress our replicas for further situations, such as dated assistance actions, exclusively useful toward present information with demonstrating tasks in some additional fields, such as expedient disappointment exhibiting in commerce, forecasting student dropout, and seeking the profession expansion.

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