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Analysis of Philanthropist for Internal NGO Management using Data Mining

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ABSTRACT

Non-governmental organizations (NGOs) make significant contributions to diverse areas. Similar to for-profits they need to manage their knowledge, but often lack resources for this. Social software may give a "new hope" for knowledge management in NGOs particularly by implementing social knowledge environments (SKEs). Since majority of international NGOs have a website, is it possible to use it to support SKE? This paper proposed a theoretical framework for creating a SKE on the base of NGO website. Proposed website model considers NGO features from this perspective and shows the approach to SKE development. Web mining a process through which meaningful data and patterns are acquired from large data sets, can benefit the charitable sector. Since the techniques used for mining meaningful data relies on computer science and coding, it is often automatic (or semi-automatic) once the algorithms are in place. Therefore, this process can be a feasible and effective tool for donor profiling in India.

KEYWORDS: *NGO, K-Mean Algorithm, ANN, CNN, API, SKE(Social Knowledge Environment), Data Mining*

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IJTSRD31408

1. INTRODUCTION

Information technology has progressed to such an extent where people do the daily work with just few clicks. The advancement in technology has led the world where it is today. Just a few clicks and all the information from around the world is present in the hands of people within fraction of seconds. Similarly, people don't find time to do some duties out of the daily working schedules and this is where our paper focuses on.

Today, there are many such people who want to help others in some good cause or for self-satisfaction. Donation or volunteering is one of the most preferred thing which people wish to do. But searching for a satisfactory NGO becomes a tedious task. Thus our online application wsill be able to provide a solution to the previous mentioned burden.

Our research brought us to a conclusion that there should be such a system where people may go through a good number of NGOs and make a particular selection according to their need instead of being overwhelmed by the search results which internet provides.

This system will not only be able to assist the donors or the volunteers but also allow the NGOs or social events to advertise themselves through our application. All the NGOs will have their own web pages displaying their information and contacts. The NGOs will also be able to upload their wish lists according to their current needs so that the donor will be able to view them and contact the particular NGO. Hence the overall paper proposes such a system that will soothe the on goings between a donor/ volunteer and an NGO/social organization.

1.1. Motivation

NGOs enable citizens to work together voluntarily to promote social values and civic goals, which are important to them. They promote local initiative and problem solving. Through their work in a broad array of fields – environment, health, poverty alleviation, culture & the arts, education, etc. NGO activities include, but are not limited to, environmental, social, advocacy and human rights work.

1.2. Problem Definition

Social networking seems to play an imperative role on people's lives especially on teenage youth & adults around the world. Each Social network has its own specific feature, purpose and target audience. NGOs and Volunteers are commonly extending their public relationship, promoting their organization and connecting with other volunteers through social networks such as Facebook, Twitter and LinkedIn. They need to concurrently access the sites to get regular updates because separate profiles are created for each social media. Sponsors and donors are not given a proper platform to research on the current issues raised by the Volunteers in order to extend their support to the NGO projects.

2. Literature Survey

1. Paper Title: "The Future Role of Civil Society"
Author: OleksandrBerezko
Publish Year: 2017
Summary: Large number of volunteers in NGOs provides for high staff turnover rate and moreover volunteers often participate in many organizations at once. According to non-government organizations: problems & remedies IN ,it is a usual lesson that there have been grave charges of mistreat and misuse of funds received as grant- in-aid form the government, overseas donors and brought up through their own resources by the many of the NGOs. According to Online Monitoring System (OMS), help the NGOs to centrally monitor and track the progress of their daily work in a very comprehensive manner. [4.]

2. Paper Title: "Assessing Online Behaviors through Discussion Forums in NGO's Daily Working Life"
Author: Yao-Jen Chang
Publish Year: 2014
Summary: According to Assessing Online Behaviours through Discussion Forums in NGO's Daily Working Life, it was found that a shortage of resource is often experienced by the social and welfare institutions because their service focus is on the under privileged rather than the opposite. The paper, an introduction to NGO management , suggests the growing need of NGO throughout the world be more effective and productive, and one way to achieve this is by broadening and strengthening the constitution of their Boards. [3.]

3. Paper Title: "An Introduction to Non-Governmental Organizations (NGO) Management"
Author: Ali Mostashari
Publish Year: 2018
Summary: The paper, an introduction to NGO management, suggests the growing need of NGO throughout the world be more effective and productive, and one way to achieve this is by broadening and strengthening the constitution of their Boards. The paper, Environmental NGOs in World Politics Linking the Local and the Global, explains the key role of NGOs in an emerging world environmental politics, this paper also shows how NGOs act both as in dependent bargainers and as agents of social learning, to link biophysical conditions to the political realm at both the local and global levels. [3.]

4. Paper Title: "An Online Platform for Connecting NGO"
Author: Gursharan Singh
Publish Year: 2015
Summary: The paper, NGOs Intervention in Poverty Alleviation [7], D.K. Gosh (2001) opines that attacking poverty and its reduction to an appreciable extent seems to be not manageable only by the Government sector. According to eighth paper, The National Non-profit Leadership and Management Journal [8], their purpose is to present a corporate bridge for a win-win situation and achieve a balance in society by studying the existing operations of the NGOs. [1.]

3. Software Requirements Specification

3.1. Introduction

A software requirements specification (SRS) is a document that is created when a detailed description of all aspects of the software to be built must be specified before the project is to commence. It is important to note that a formal SRS is not always written. In fact, there are many instances in which effort expended on a SRS might be better spent in other software engineering activities.

3.1.1. Project Scope

This platform also provides people interested in volunteering and wants to work for NGOs and contribute using their skill set and expertise.

This application can be easily extended to other organizations working in social sector like schools, hospitals.

3.1.2. User Classes and Characteristics

Sr. no	Description	Class	Result
1	User register into system	User	Information stored into system
2	Search NGO	User	Search by Categories
3	Filtering	System	Apply Machine Learning Technique
4	NGO Details	System	Server provide NGO Details

3.1.3. Assumptions and Dependencies

A. The System will be useful in to all user which are interested to provide the help for to the emergency.
B. User must know the which NGO are available for particular queries.
C. User/Admin must give the username and password for accessing the server
D. The system is based on web application and can be handled easily by the user.

3.2. Functional Requirements

3.2.1. System Feature 1

3.2.2. System Feature2

3.3. External Interface Requirements

3.3.1. User Interfaces

A. Front-end software: Python.
B. Back-end software: MYSQL 5.0

3.3.2. Hardware Interfaces

A. Windows OS.

3.3.3. Software Interfaces

A. Operating system : We have chosen windows operating system for its best support and user-friendliness.
B. Database: To save the user records we have chosen MYSQL database.

3.3.4. Communication Interfaces

A. Our Project belongs to web application by which we are connecting user and Local Server with request and response form.
B. We are also connecting the server and the Portal as there is giving of Information to the Admin.
C. There is communication between the registered user and the Admin as the Admin gives the valid permission to the user.

3.4. Nonfunctional Requirements

3.4.1. Performance Requirements

For good performance, the server should be tuned to server only server process and most of the RAM should be used for our application. Good internet bandwidth for find out the NGO details converting API the server can handle the request at a time.

3.4.2. Safety Requirements

For the safety purpose backup of the database must be required. To avoid illegal use of the system, while using this System. The user first register and must login and logout each time they uses the System.

3.4.3. Security Requirements

The system should be safe because we use the windows system, with firewall system therefore the system should have proper security so that it cannot be hacked.

3.4.4. Software Quality Attributes

Application will satisfy following software quality attributes:

A. Correctness: System is planned in such way that it will give most correct output.

B. Reusable: This software is reusable.

C. Availability: As the System is a Web Application it is always available and no need of any hardware or software for its installation.

Also system satisfies other quality attributes such as reliability, Data Integrity, maintainability and Scalability.

3.5. System Requirements

3.5.1. Database Requirements

A. **Logical Database Requirements**: A logical database can stretch over multiple physical hard disks and information files. The data storage unit is still a single database for information retrieval purposes. To have a logical database, all given hard disks and information files must be accessible from a single source.

B. **Physical Database Requirements**: A physical database is technically a smaller unit of storage referred to as a company, field, record or table, de- pending on how much information the physical storage device contains. A field is the smallest unit of storage housing only a single file.

3.5.2. Software Requirements

A. Windows OS.

B. Front End : Python.

C. Database : MySQL 5.0

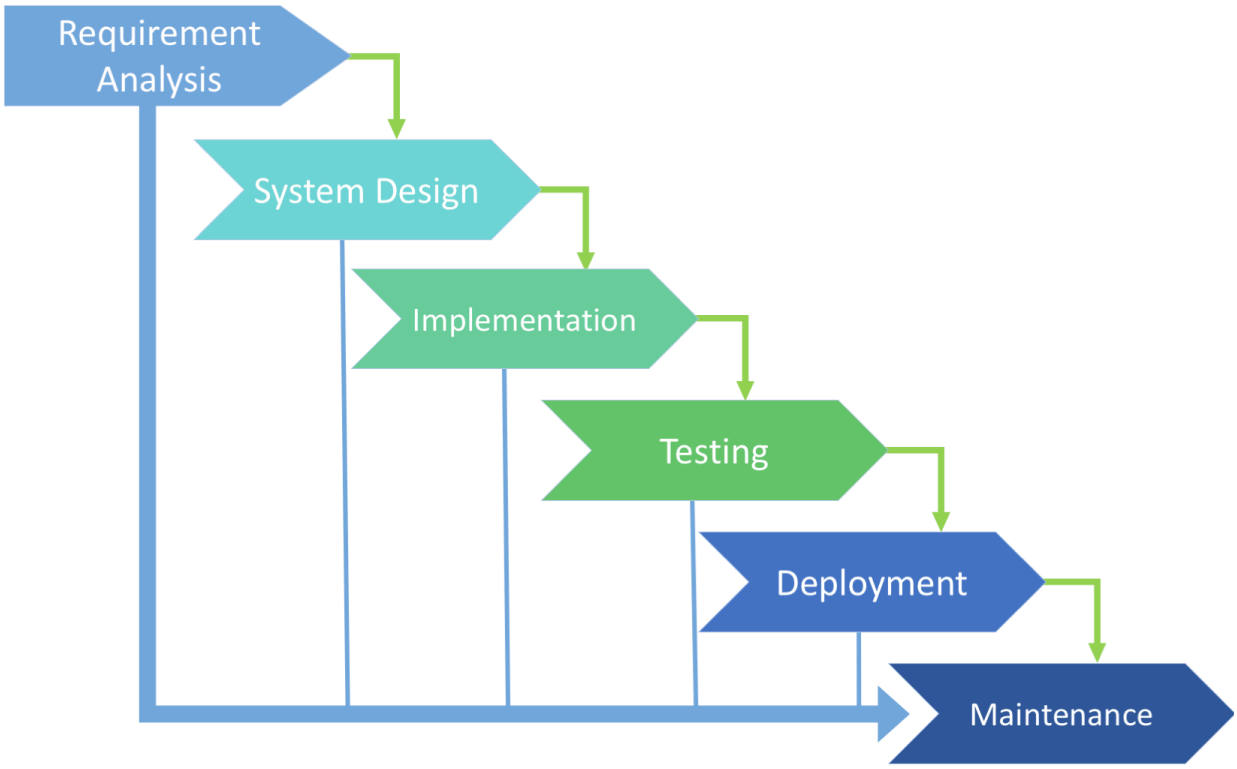
3.5.3. Hardware Requirements

A. Processor : Intel Core i3 or advanced

B. RAM : 4 GB (min)

C. Hard Disk : 200 GB (min)

3.6. Analysis Models: SDLC Model to be applied



The major software development activities include:

- Requirement extraction: After deciding the topic we had a vague idea of what is required. After a thorough analysis of the requirements and planning steps to reach the target, the abstract idea is to put the idea into practice.
- Software description: Describes that the software is the next step in the process.
- Abstract system representation: Is created to confirm that it meets the requirements of the product and interfaces with other software products together with the underlying hardware.
- Requirements: Implemented through the code programmed by software engineers.
- Code testing: The code is tested to make sure it is free of bugs and adheres to the requirements.
- Documentation of the internal design: For future product maintenance and enhancement.
- Maintenance: It is performed to change the system architecture according to future needs. This may require the addition of code or alteration of the existing code.

3.7. System Implementation Plan

We have divided the implementation plan for proposed system in various set of activities which are needed to be carried out for successful implementation. Following time-lines and tables represents the same.

Sr No	Task	Description	Duration (Days)
1	Domain selection	Deciding the domain as network security for the project	15
2	Searching key terms	Searching key terms related to the domain	2
3	Deciding topic for project	Selecting Smart Crawler as project topic	10
4	Literature survey	Studied Papers related to smart crawler	20
5	Problem statement	Making the problem statement	10
6	Synopsis formation	Forming the synopsis	15
7	Studying existing system	Methodologies and drawbacks of existing system are made	15
8	Mathematical Modelling	For the mathematical model of project	25
9	Existing System	Implementation of existing system	60
10	Proposed system	Implementation of proposed system	70
11	Testing	Going through various types of testing	20
12	Data Analysis	Analysis of existing and proposed system	30
13	Report generation	Latex report preparation	20

Fig 3.7.1 Project Plan for Sem-I and Sem-II

PERT chart/ Gantt chart

A work plan is a complete accounting of how a person or grouping proposes going about accomplishing a specific task, approaching a project. Proposed work plan generally includes an introduction or overview of a project or job, a breakdown of how individual project-related tasks will be accomplished, a timeline for completion and cost projections for implementation.

The above figure shows Gantt chart of proposed plan work this chart explain the plan of work there are total eight task.

Task 1 is study IEEE paper in 30 days, task 2 signify design of algorithm, task 3 represent design of GUI, task 4 represent preprocessing, task 5 signify the coding, task 6 represent Implementation it require 60 days to complete a work, task 7 correspond to Integrating modules and testing and task 8 is documentation.

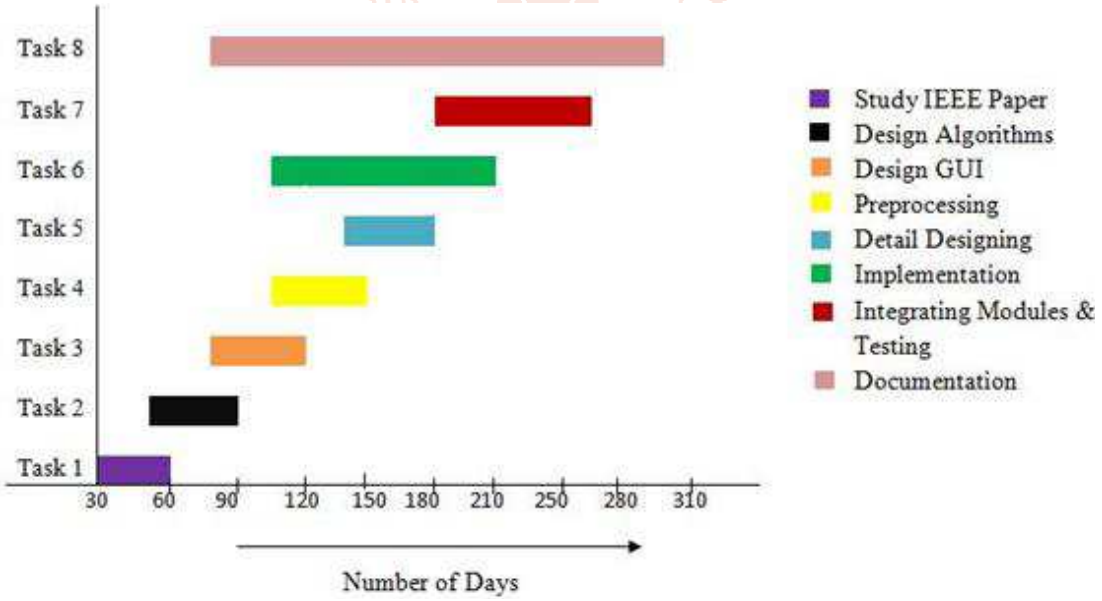


Fig 3.7.2 Project Plan for Sem-I and Sem-II

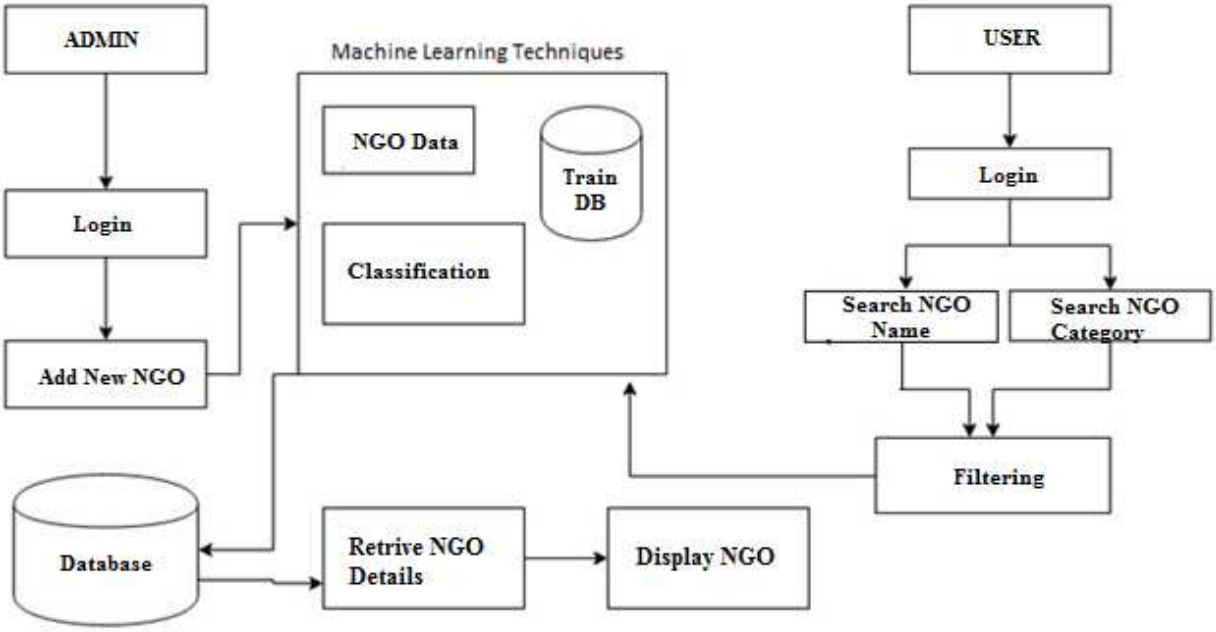
4. System Design

4.1. Introduction

In order to overcome the issues faced by NGOs and Volunteers, it would be better to introduce a social network for NGOs and Volunteers. Hence proposed system is web application system is developed in order to serve as a platform to connect NGOs and

volunteers. Using Text mining, the system connects users who are requesting donation with the donors. The System also gives automated ranking from user's view on NGO projects.

4.2. System Architecture



4.3. Data Flow Diagrams

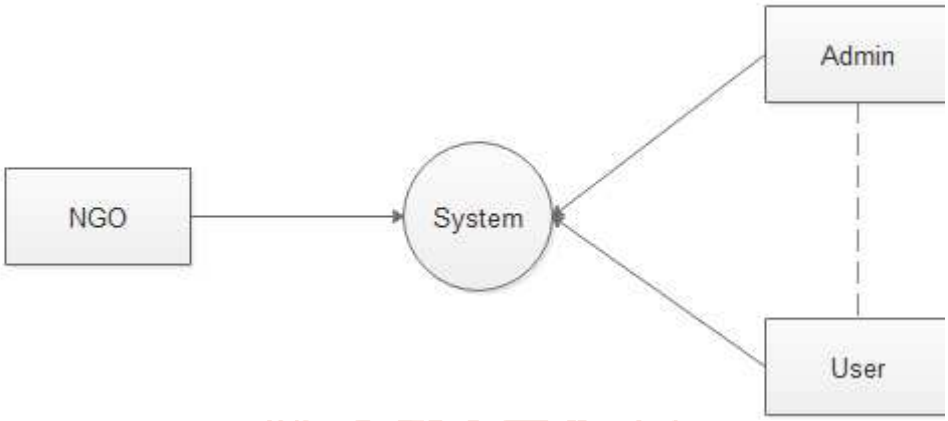


Fig1. DFD

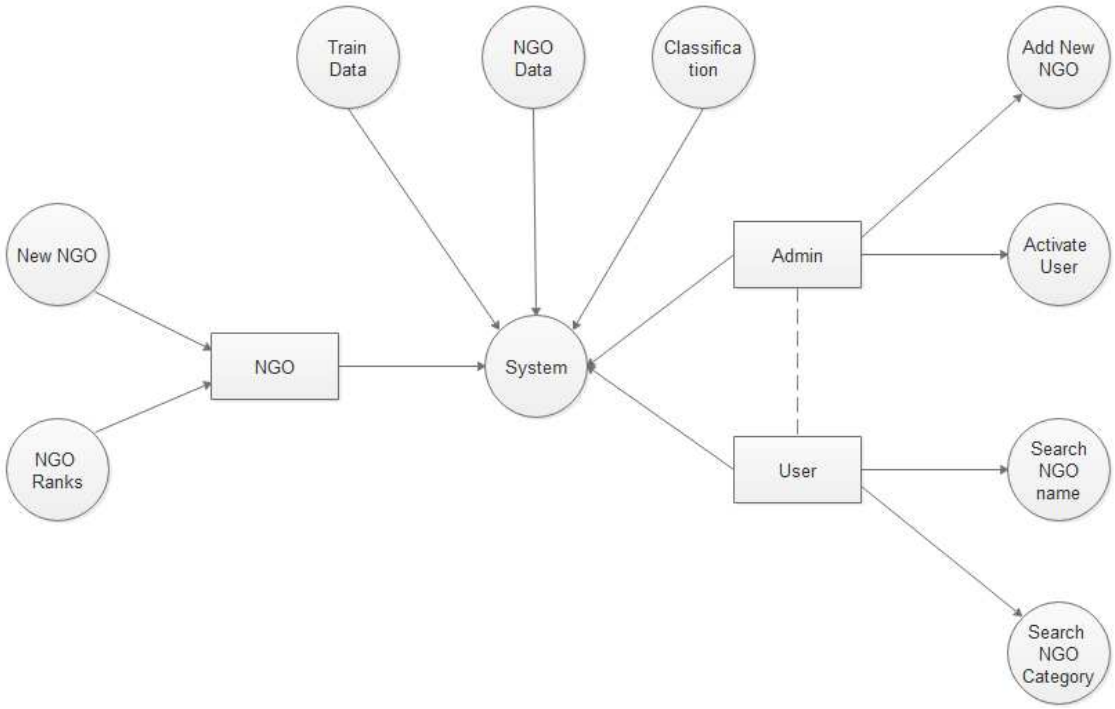


Fig2 DFD

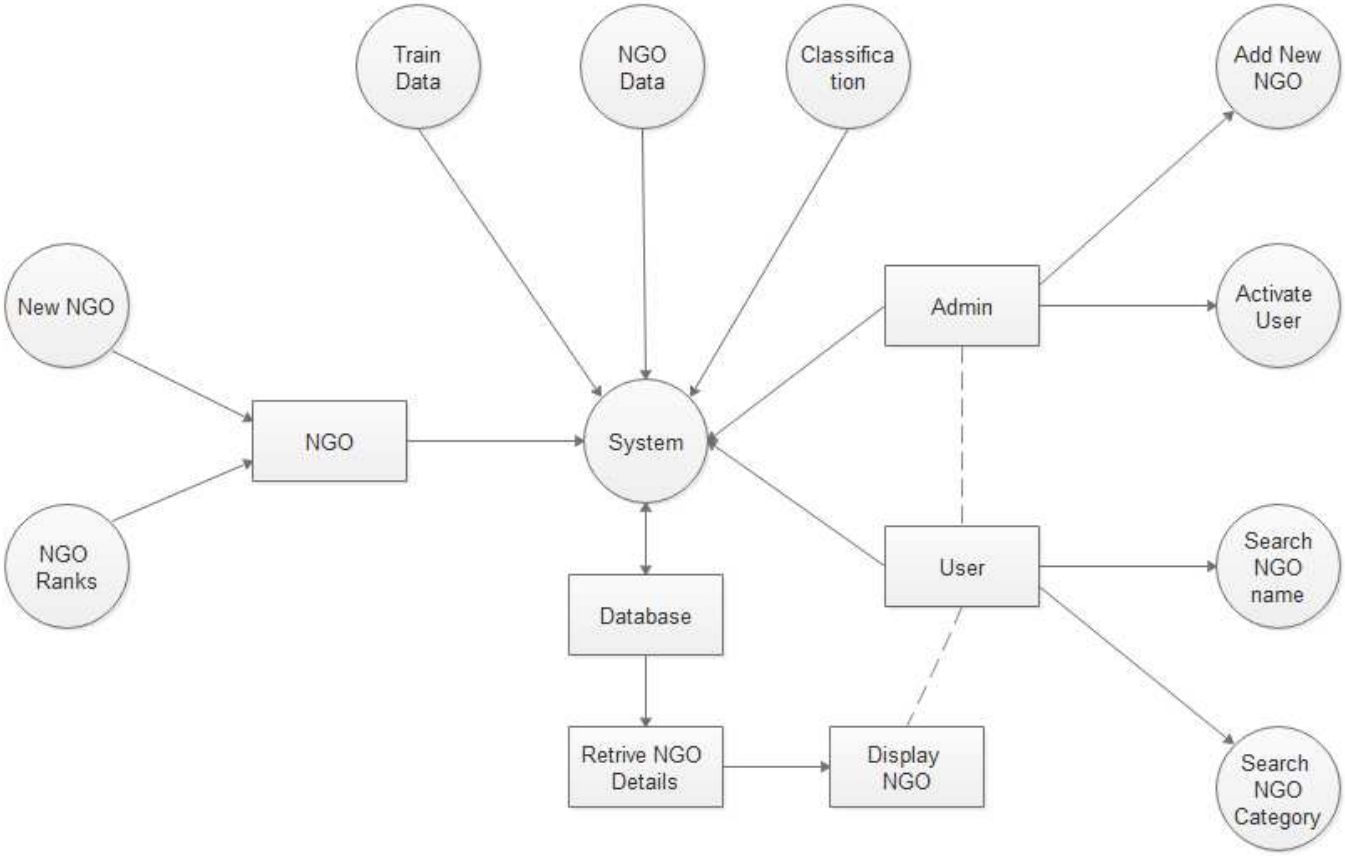
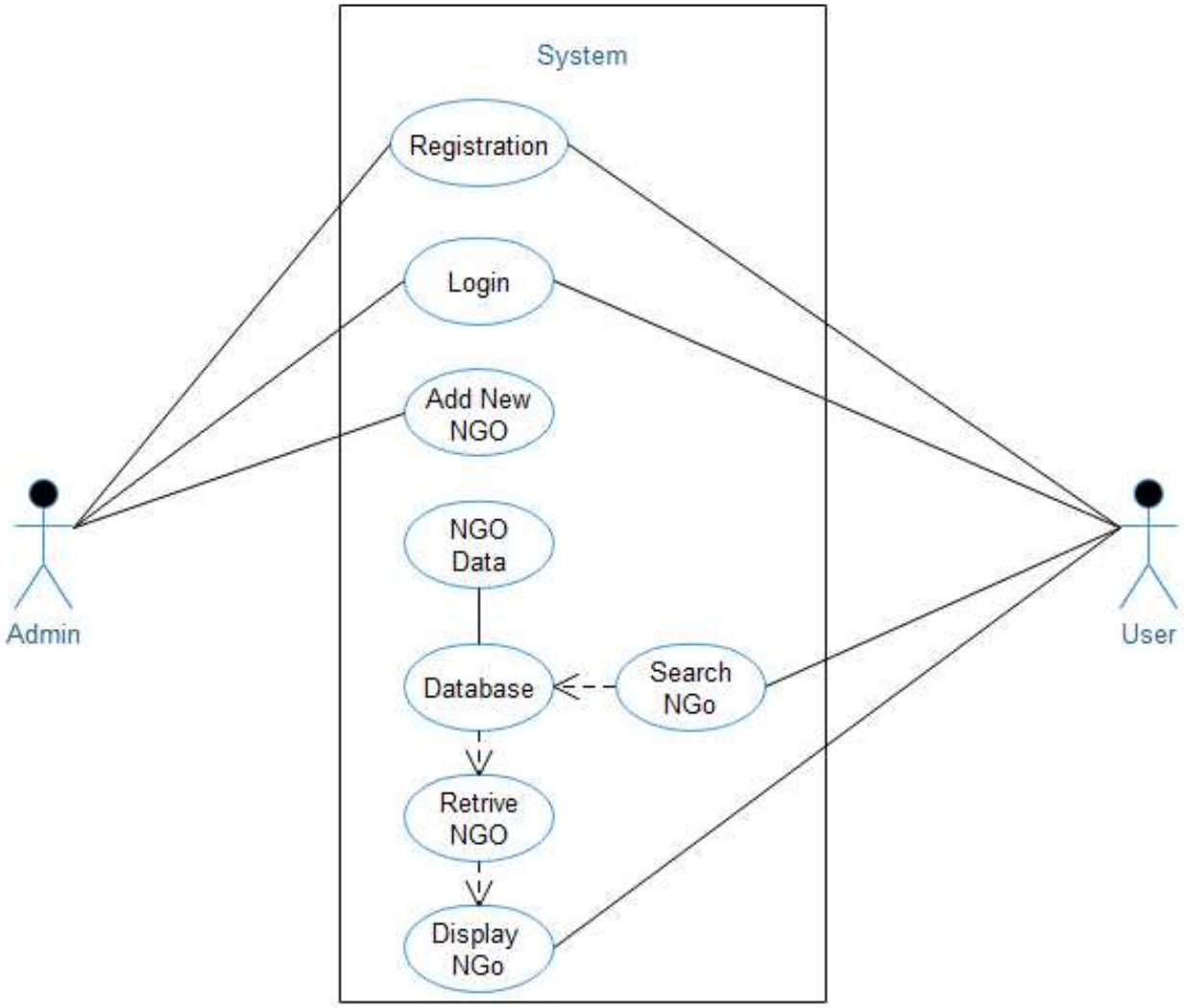


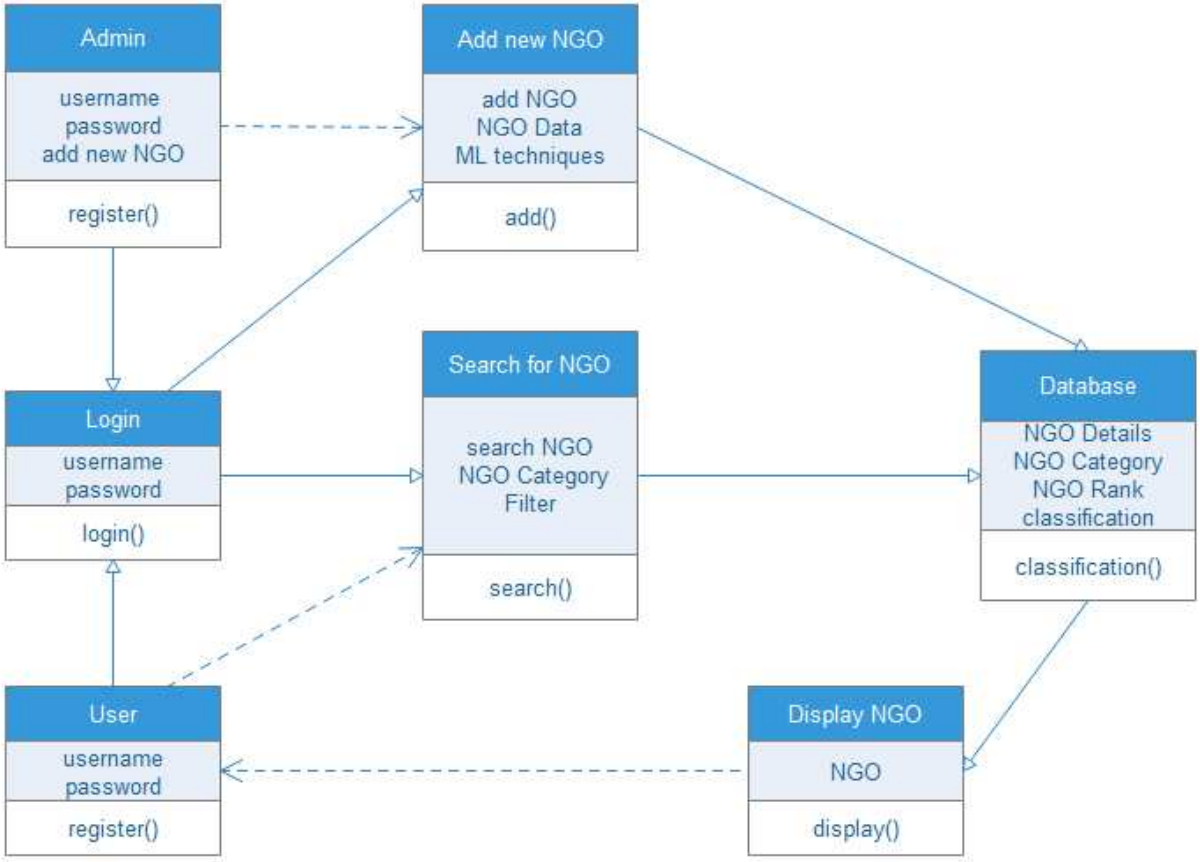
Fig3 DFD

4.4. UML Diagrams

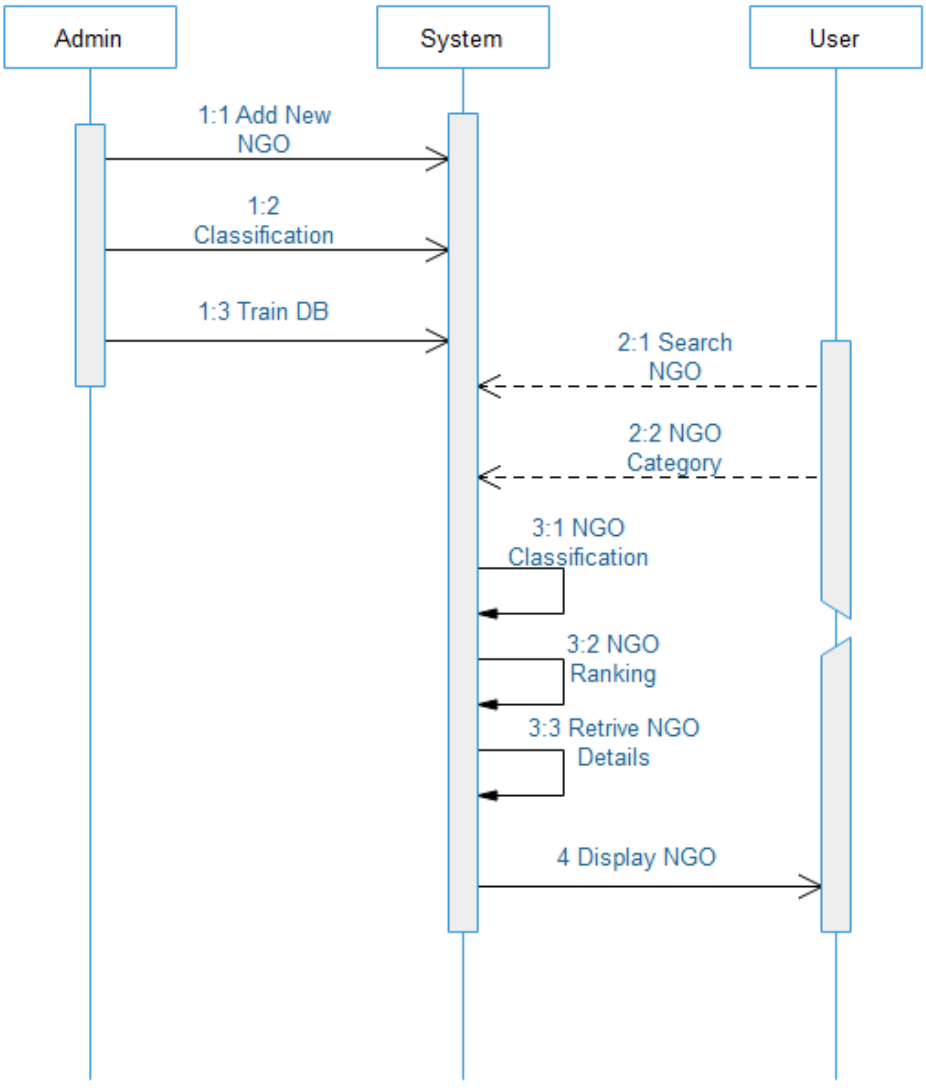
4.4.1. Use Case Diagram



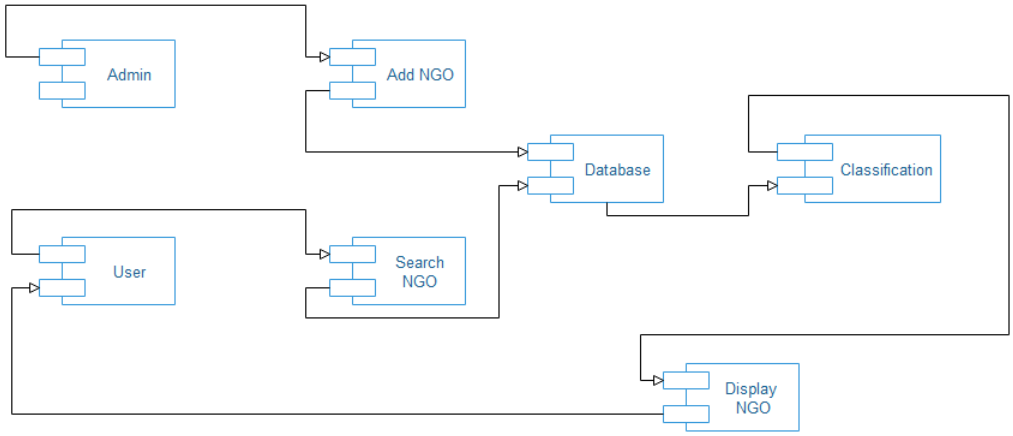
4.4.2. Class Diagram



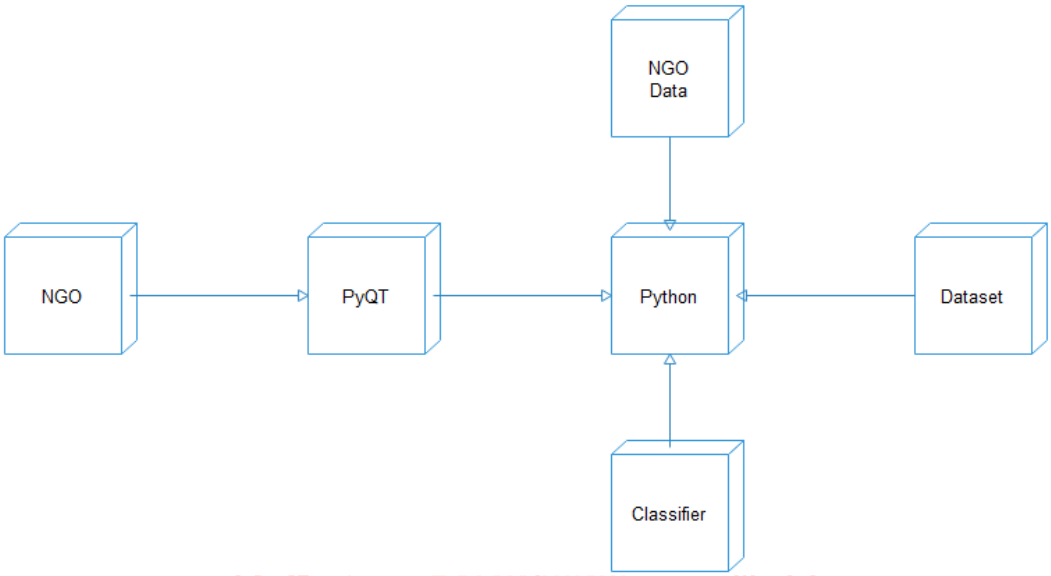
4.4.3. Sequence Diagram



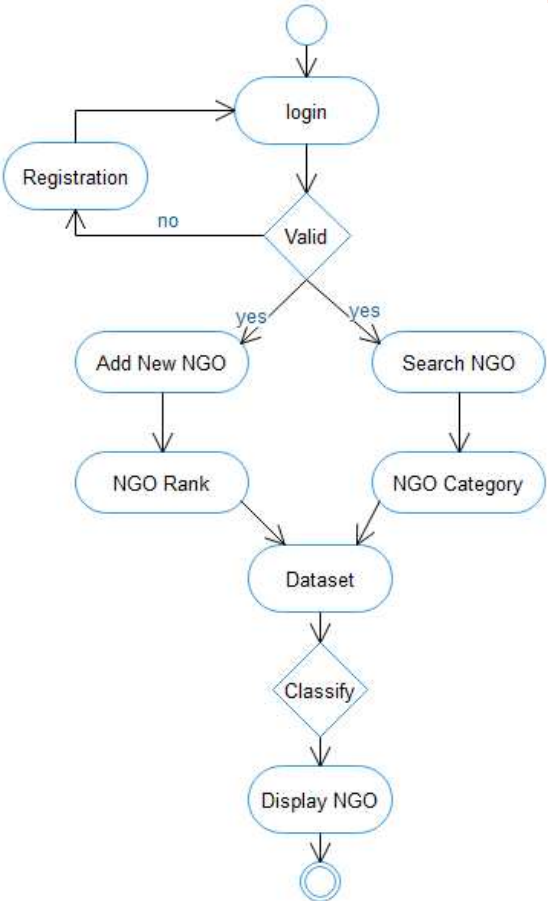
4.4.4. Component Diagram



4.4.5. Deployment Diagram



4.4.6. Activity Diagram



5. PROJECT PLAN

5.1. Project Estimates

Use Waterfall model and associated streams derived from assignments 1,2, 3, 4 and 5(Annex A and B) forestimation.

5.1.1. Reconciled Estimates

- Cost Estimate

The project cost can be found using any one of the model.
COCOMO-1 Model
COCOMO-2 Model

Model -1: The basic COCOMO model computes software development efforts as a function of program size expressed in estimated lines of code.

Model-2: The intermediate COCOMO model computes software development efforts as a function of program size and a set of cost drivers that include subjective assessment of the product, hardware, personnel, project attributes

Model-3: The advanced COCOMO model incorporates all characteristics of the intermediate version with an assessment of the cost drivers impact on each step of the software engineering process. Following is the basic COCOMO -2 model.

Software Project	A(b)	B(b)	C(b)	D(b)
Organic	2.4	1.05	2.5	0.38
Semi-detached	3.0	1.22	2.5	0.35
Embedded	3.6	1.20	2.5	0.32

The basic COCOMO -2 model equations take form:
$E=A(b)KLOC^{B(b)}$
$D=C(b)E^{D(b)}$

Where E is the effort applied in person months. D is development time in chronological month. KLOC is estimated number of delivered lines of code for the project. This project can be classified as Semidetached software project. The rough estimate of number of lines of this project is 9.072k.Applying the above formula

$E=3.0*(9.072)^{1.22}$
= 44.20 person- months
$D=2.5* 44^{.35}$
= 9.40 months

Hence according COCOMO -2 model the time required for completion of the project is 9 (~9.40) months.

- Cost of Project:

Equation for calculation of cost of project using COCOMO - 2 model is:
C = D * Cp

Where,
C = Cost of project
D = Duration in month
Cp= Cost incurred per person-month, Cp=Rs.2000/- (per person-month) (approx.)
C=9*2000
= 18000/-

Hence according COCOMO - 2 model the cost of project is 18000/-(approx.)

- Time Estimates

The time estimate of this project is approximate 9 months.

5.1.2. Project Resources

Well configured Laptop, Linux System, 2 GHZ CPU speed, 4 GB RAM, Internet connection.

5.2. Risk Management w.r.t. NP Hardanalysis

This section discusses Project risks and the approach to managingthem.

5.2.1. RiskIdentification

1. Have top software and customer managers formally committed to support the project?
   Ans-Not applicable.
2. Are end-users enthusiastically committed to the project and the system/product to be built?
   Ans-Not known at this time.

3. Are requirements fully understood by the software engineering team and its customers?
   Ans-Yes
4. Have customers been involved fully in the definition of requirements?
   Ans-Not applicable
5. Do end-users have realistic expectations?
   Ans-Not applicable
6. Does the software engineering team have the right mix of skills?
   Ans-yes
7. Are project requirements stable?
   Ans-Not applicable
8. Is the number of people on the project team adequate to do the job?
   Ans-Not applicable
9. Do all customer/user constituencies agree on the importance of the project and on the requirements for the system/product to be built?
   Ans-Not applicable

5.2.2. Risk Analysis

The risks for the Project can be analyzed within the constraints of time and quality.

Risk Table:

ID	Risk Description	Probability	Schedule	Quality	Overall
1	correctness	Low	Low	high	Low
2	Availability	High	Low	high	high

Risk Probability definitions:

Probability	Value	Description
High	Probability of occurrence is	$> 75\%$
Medium	Probability of occurrence is	$26 - 75\%$
Low	Probability of occurrence is	$< 25\%$

Risk Impact definitions:

Impact	Value	Description
Very high	$> 10\%$	Schedule impact or Unacceptable quality
High	$5 - 10\%$	Schedule impact or Some parts of the project have low quality
Medium	$< 5\%$	Schedule impact or Barely noticeable degradation in quality Low Impact on schedule or Quality can be incorporated

5.2.3. Overview of Risk Mitigation, Monitoring, Management

Following are the details for each risk.

1. Risk Mitigation:

If a software team adopts a proactive approach to risk, avoidance is always the best strategy. This is achieved by developing a plan for *risk mitigation.* To mitigate this risk, you would develop a strategy for reducing turnover. Amongthe possible steps to be taken are:

- Meet with current staff to determine causes for turnover (e.g., poor working conditions, low pay, competitive job market).
- Mitigate those causes that are under your control before the project starts.
- Once the project commences, assume turnover will occur and develop techniques to ensure continuity when people leave.
- Organize project teams so that information about each development activityis widely dispersed.
- Define work product standards and establish mechanisms to be sure that all models and documents are developed in a timely manner.
- Conduct peer reviews of all work (so that more than one person is “up tospeed”).
- Assign a backup staff member for every critical technologist.

2. Risk Monitoring

As the project proceeds, *risk-monitoring* activities commence. The project manager monitors factors that may provide an indication of whether the risk is becoming more or less likely. In the case of high staff turnover, the general attitude of team members based on project pressures, the degree to which the team has jelled, interpersonal relationships among team members, potential problems with compensation and benefits, and the availability of jobs within the company and outside it are all monitored.

3. Risk Management

Risk management and contingency planning assumes that mitigation efforts have failed and that the risk has become a reality. Continuing the example, the project is well under way and a number of people announce that they will be leaving. If the mitigation strategy has been followed, backup is available, information is documented, and knowledge has been dispersed across the team. In addition, you can temporarily refocus resources (and readjust the project schedule) to those functions that are fully staffed, enabling newcomers who must be added to the team to "getup to speed." Those individuals who are leaving are asked to stop all work and spend their last weeks in "knowledge transfer mode." This might include video-based knowledge capture, the development of "commentary documents or Wikis," and/or meeting with other team members who will remain on the project.

5.3. Project Schedule

Sr No	Task	Description	Duration (Days)
1	Domain selection	Deciding the domain as network security for the project	15
2	Searching key terms	Searching key terms related to the domain	2
3	Deciding topic for project	Selecting Smart Crawler as project topic	10
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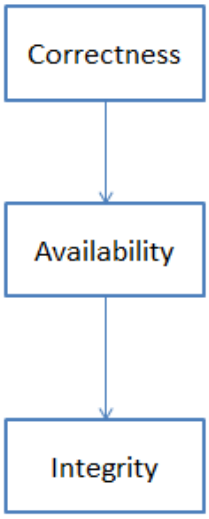
13	Report generation	Latex report preparation	20

5.3.1. Project task set

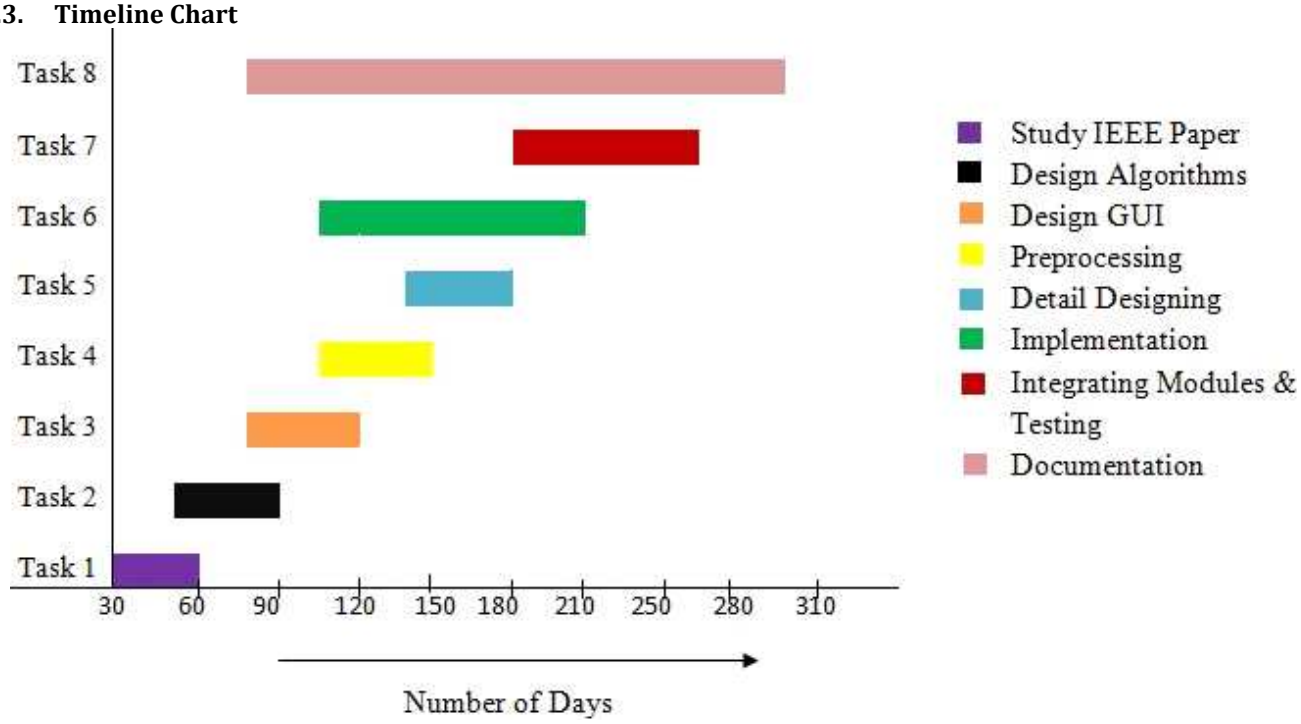
Major Tasks in the Project stages are:

- Task 1: correctness
- Task 2: availability
- Task 3: integrity

5.3.2. Task network



5.3.3. Timeline Chart



5.4. Team Organization

Team consists of 4 members and proper planning mechanism are used and roles of each member are defined.

5.4.1. Team structure

The team structure for the project is identified. Roles are defined.

Sr. no	Student Name	Role
1.	Pravendra Kumar Singh	Documentation
2.	Rupal Singh	Development
3.	Nikhita Singh	GUI
4.	Roshan Singh	Testing

5.4.2. Management reporting and communication

Well planning mechanisms are used for progress reporting and inter/intra team communication are identified as per requirements of the project.

6. PROJECT IMPLEMENTATION

6.1. Overview of Project Modules

In order to overcome the issues faced by NGOs and Volunteers, it would be better to introduce a social network for NGOs and Volunteers. Hence proposed system is web application system is developed in order to serve as a platform to connect NGOs and volunteers. Using Text mining, the system connects users who are requesting donation with the donors. The System also gives automated ranking from user's view on NGO projects.

6.2. Tools and Technologies Used

- Python- For programming logic
- MYSQL server- To Communicate with MYSQL database and executes services written in Html & Python.
- Flask – Provides tools for developing applications
- MYSQL- For to store The Database

6.3. Algorithm Details

K-means Clustering Algorithm

k-means is one of the simplest unsupervised learning algorithms that solve the well known clustering problem. The procedure follows a simple and easy way to classify a given data set through a certain number of clusters (assume k clusters) fixed apriori. The main idea is to define k centers, one for each cluster. These centers should be placed in a cunning way because of different location causes different result. So, the better choice is to place them as much as possible far away from each other. The next step is to take each point belonging to a given data set and associate it to the nearest center. When no point is pending, the first step is completed and an early group age is done. At this point we need to re-calculate k new centroids as barycenter of the clusters resulting from the previous step. After we have these k new centroids, a new binding has to be done between the same data set points and the nearest new center. A loop has been generated. As a result of this loop we may notice that the k centers change their location step by step until no more changes are done or in other words centers do not move any more. Finally, this algorithm aims at minimizing an objective function know as squared error function given by:

$$J(V) = \sum_{i=1}^{c} \sum_{j=1}^{c_i} (\|x_i - v_j\|)^2$$

where,
'||xi - vj||' is the Euclidean distance between *xi* and *vj.*
'ci' is the number of data points in i^{th} cluster.
'c' is the number of cluster centers.

Algorithmic steps for k-means clustering

Let X = {x1,x2,x3,……..,xn} be the set of data points and V = {v1,v2,……..,vc} be the set of centers.

1. Randomly select *'c'* cluster centers.
2. Calculate the distance between each data point and cluster centers.
3. Assign the data point to the cluster center whose distance from the cluster center is minimum of all the cluster centers..
4. Recalculate the new cluster center using:

$$v_i = (1/c_i) \sum_{j=1}^{c_i} x_i$$

where, '*ci*' represents the number of data points in i^{th} cluster.

5. Recalculate the distance between each data point and new obtained cluster centers.
6. If no data point was reassigned then stop, otherwise repeat from step 3).

7. SOFTWARE TESTING

7.1. Type of Testing

Along with the type of testing also mention the approach to be followed for the testing, that is, *Manual Testing* or *Automated Testing*. Use Automated Testing Plan for planning automation activities in details.

The different types of testing that may be carried out in the project are as follows:

- Unit testing
- Integration Testing
- System Testing
- Validation Testing
- White Box Testing
- Black Box Testing
- GUI Testing

Unit Testing

Individual components are tested independently to ensure their quality. The focus is to uncover errors in design and implementation, including

- Data structure in component
- Program logic and program structure in a component
- Component interface
- Functions and operations of a component

Integration Testing

A group of dependent components are tested together to ensure their quality of their integration unit. This approach is to do incremental integration to avoid "big-bang" problem. That is when the entire program is put together from all units and tested as a whole. The big-bang approach usually results in chaos which incremental integration avoids. Incremental integration testing can be done in two different ways top down and bottom up. Then there is also the possibility of regression integration.

The top down integration is when modules are integrated by moving downwards through the control hierarchy, beginning with the main control module. Modules subordinate to the main control module are incorporated into main structure n either depth-first or breadth-first manner. The top down integration verifies major controls or decision points early in the test process. If major control problems do exist, early recognition is essential.

Bottom-up integration testing begins construction and testing with the lowest levels in the program structure. Because modules are integrated from the bottom-up, processing required for modules subordinate to a given level is always available and the need for test stubs is eliminated.

The focus is to uncover errors in:

- Design and construction of software architecture
- Integrated functions or operations at sub-system level
- Interfaces and interaction and/or environment integration

System Testing

The system software is tested as a whole. It verifies all elements mesh properly to make sure that all system functions and performance are achieved in the target environment. The focus areas are:

- System functions and performance
- System reliability and recoverability (recovery test)
- System behavior in the special conditions (stress and load test)
- System user operations (acceptance test/alpha test)
- Hardware and software integration collaboration
- Integration of external software and the system

Validation Testing

Validation can be defined in many ways, but a simple definition is that succeeds when software functions in a manner that can be reasonably expected by the customer.

Software validation is achieved through a series of black-box tests that demonstrate conformity with requirements. A test plan outlines the classes of tests to be conducted and a test procedure defines specific test cases that will be used to demonstrate conformity with requirements. Both the plan and procedure are designed to ensure that all functional requirements are satisfied, all behavioral characteristics are achieved, all performance requirements are attained, documentation is correct, and human engineered and other requirements are met.

White Box Testing

White-box test design allows one to peek inside the "box", and it focuses specifically on using internal knowledge of the software to guide the selection of test data. Synonyms for white-box include: structural, glass-box and clear-box.

White box testing is much more expensive than black box testing. It requires the source code to be produced before the tests can be planned and is much more laborious in the determination of suitable input data and the determination if the software is or is not correct. This testing is concerned only with testing the software product; it cannot guarantee that the complete specification has been implemented.

Black Box Testing

Black-box test design treats the system as a "black-box", so it doesn't explicitly use knowledge of the internal structure. Black-box test design is usually described as focusing on testing functional requirements. Synonyms for black box include: behavioral, functional, opaque-box, and closed-box. Black box testing is concerned only with testing the specification; it cannot guarantee that all parts of the implementation have been tested. Thus black box testing is testing against the specification and will discover *faults of omission*, indicating that part of the specification has not been fulfilled.

GUI Testing

Graphical User Interface (GUIs) present interesting challenges for software engineers. Because of reusable components provided as part of GUI development environments, the creation of the user interface has become less time consuming and more precise. But, the same time, the complexity of GUIs has grown, leading to more difficulty in the design and execution of the test cases. Because many modern GUIs have the same look and same feel, a series of test cases can be derived.

7.2. Test cases & Test Results

Test Case ID	1
Test Case Description	Start Server
Steps	1. Connect wifi internet network. 2. Server will start
Test Case Result	After clicking on the start button of system should perform the respective operation.
Action Result	After clicking on the start button of the system should perform the respective operation.
Status	Pass

Test Case ID	2
Test Case Description	Login button show on home page of application
Steps	1. User fill the User ID and password in text Box 2. User click on Log In Button
Test Case Result	Login Successfully
Actual Result	Login Successfully
Status	Pass

Test Case ID	3
Test Case Description	System should Verify Password and Username
Steps	User should click on OK button for verification
Test Case Result	Fail
Actual Result	Fail
Status	Fail

Test Case ID	4
Test Case Description	System should verify unauthorized activity
Steps	User should click on OK button for verification
Test Case Result	Pass
Actual Result	Pass
Status	Pass

Test Case ID	5
Test Case Description	Add NGO
Steps	1. Connect server 2. Add NGO Details
Test Case Result	Data will added
Actual Result	Pass
Status	NGO successfully Added

Test Case ID	6
Test Case Description	Search NGO
Steps	1. Connect server 2. Search By Name
Test Case Result	Data will retrieved
Actual Result	Pass
Status	NGO Search Successfully

Test CaseID	7
Test CaseDescription	Search NGO
Steps	1. Connect server 2. Search By Name
Test CaseResult	Data Not retrieved
ActualResult	Fail
Status	NGO Search unsuccessfully

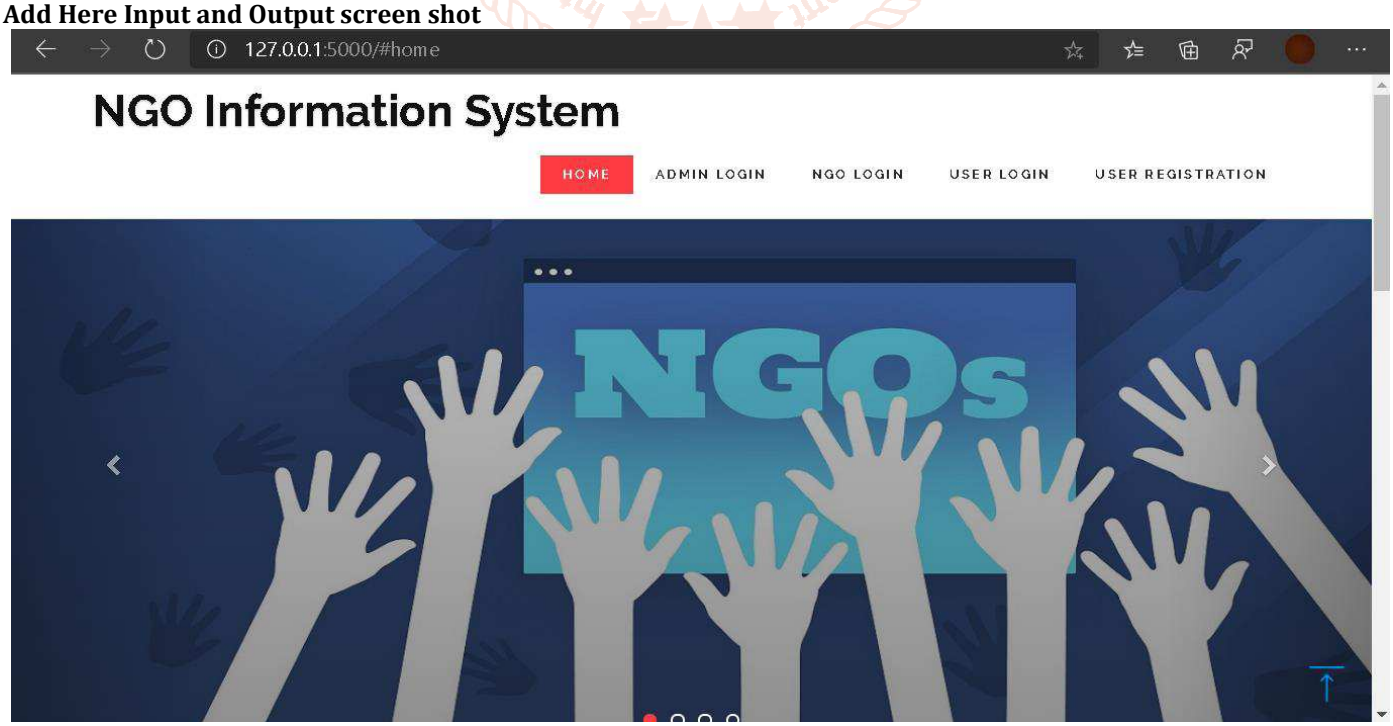
8. RESULTS

8.1. Outcomes

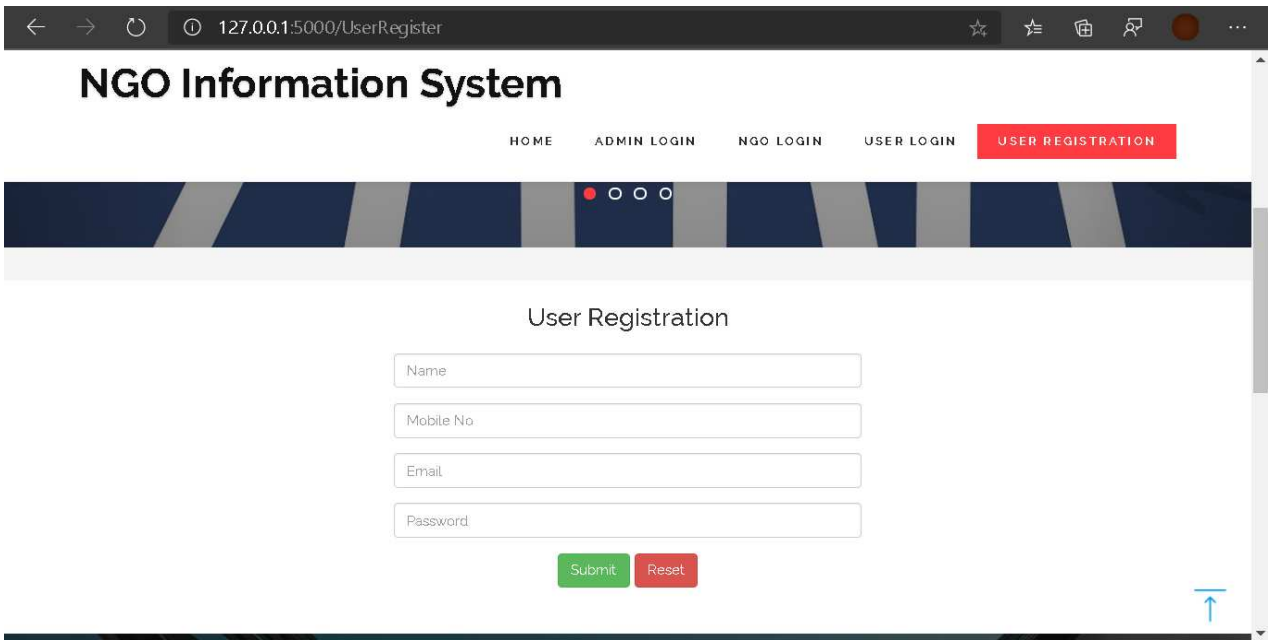
Add here Output Screen Shot

8.2. Screen Shots

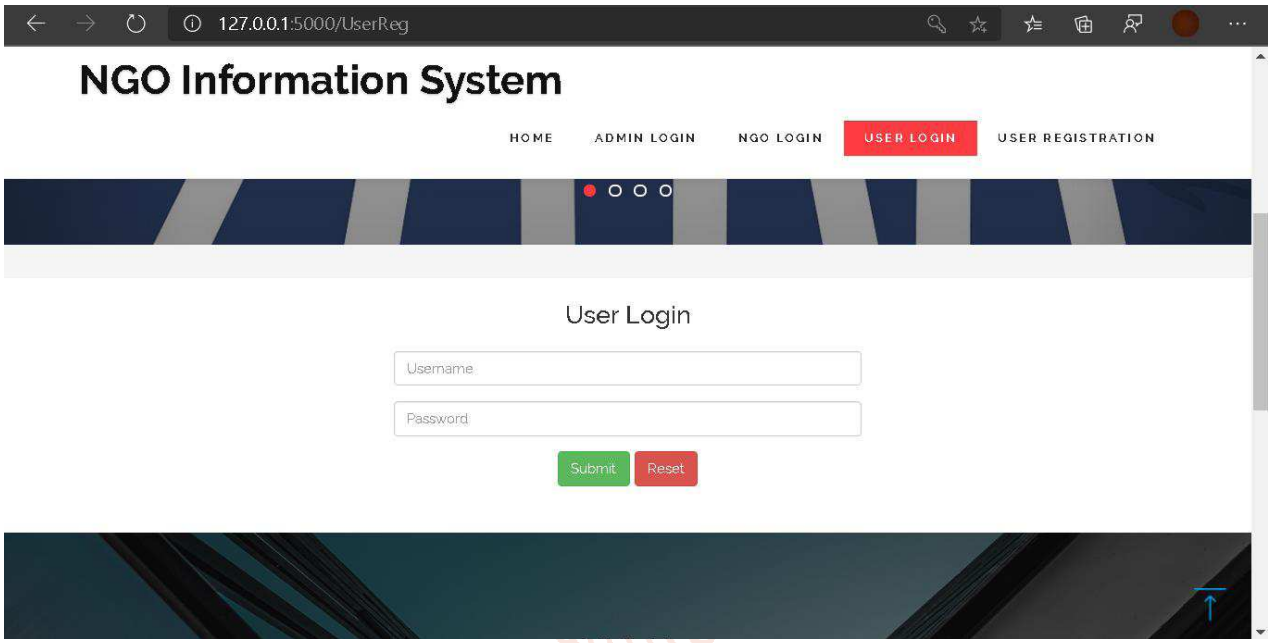
Add Here Input and Output screen shot



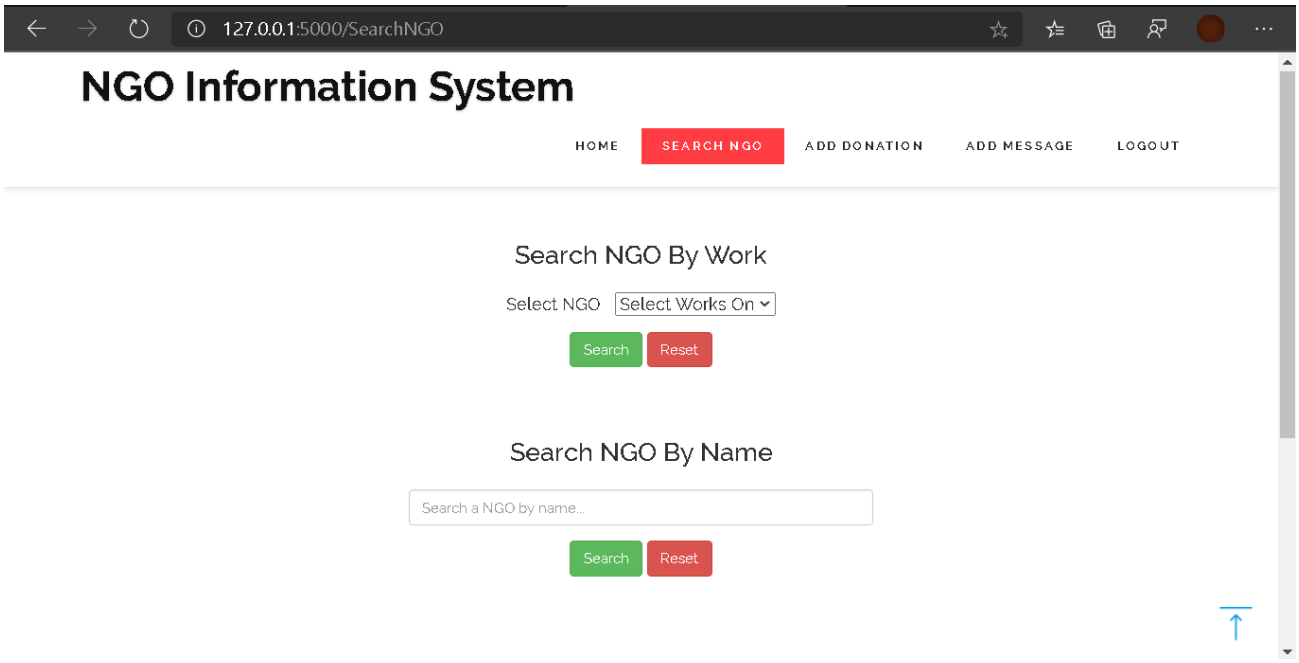
Main Page



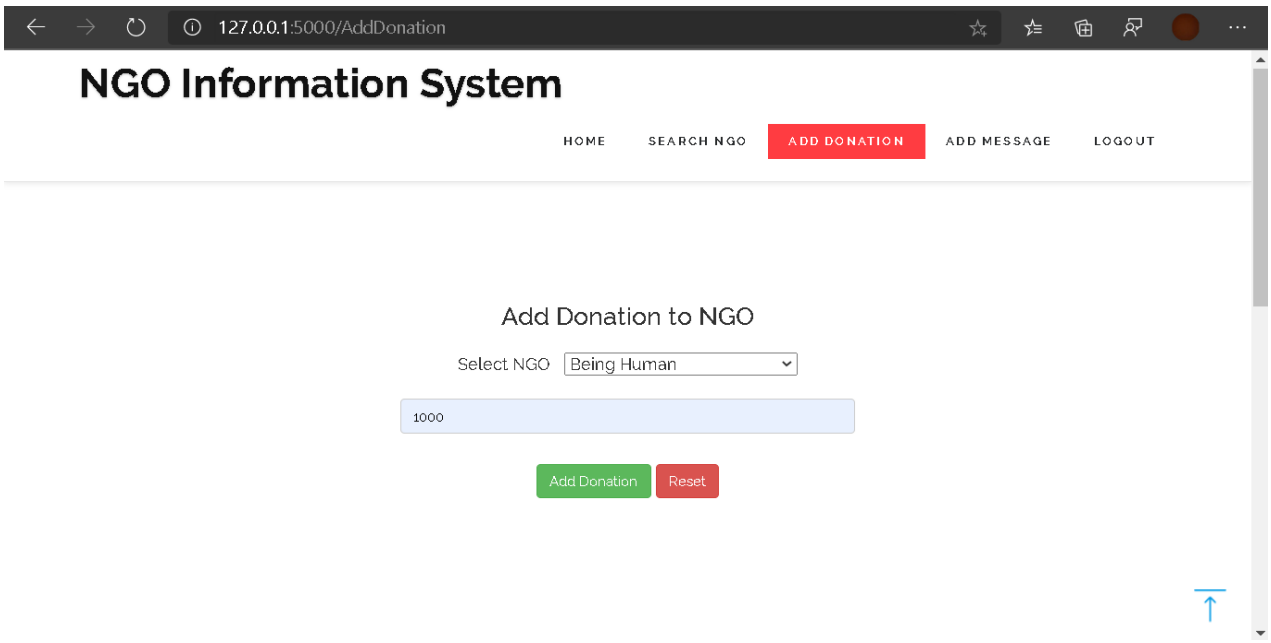
User Registration Page



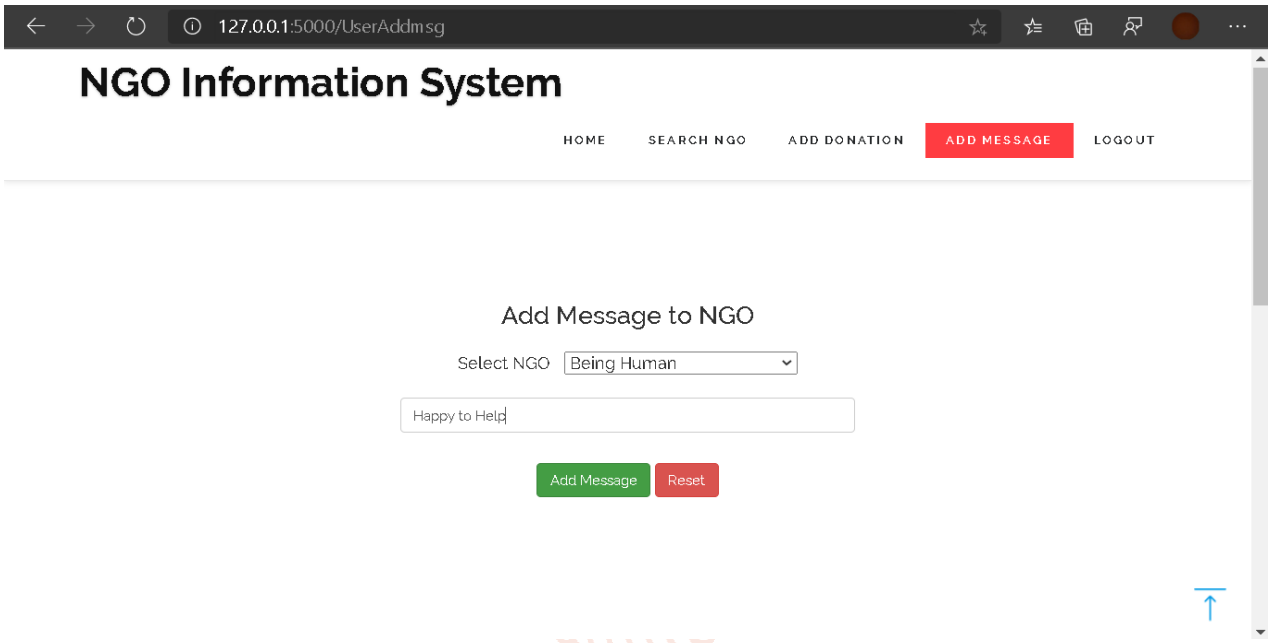
User Login Page



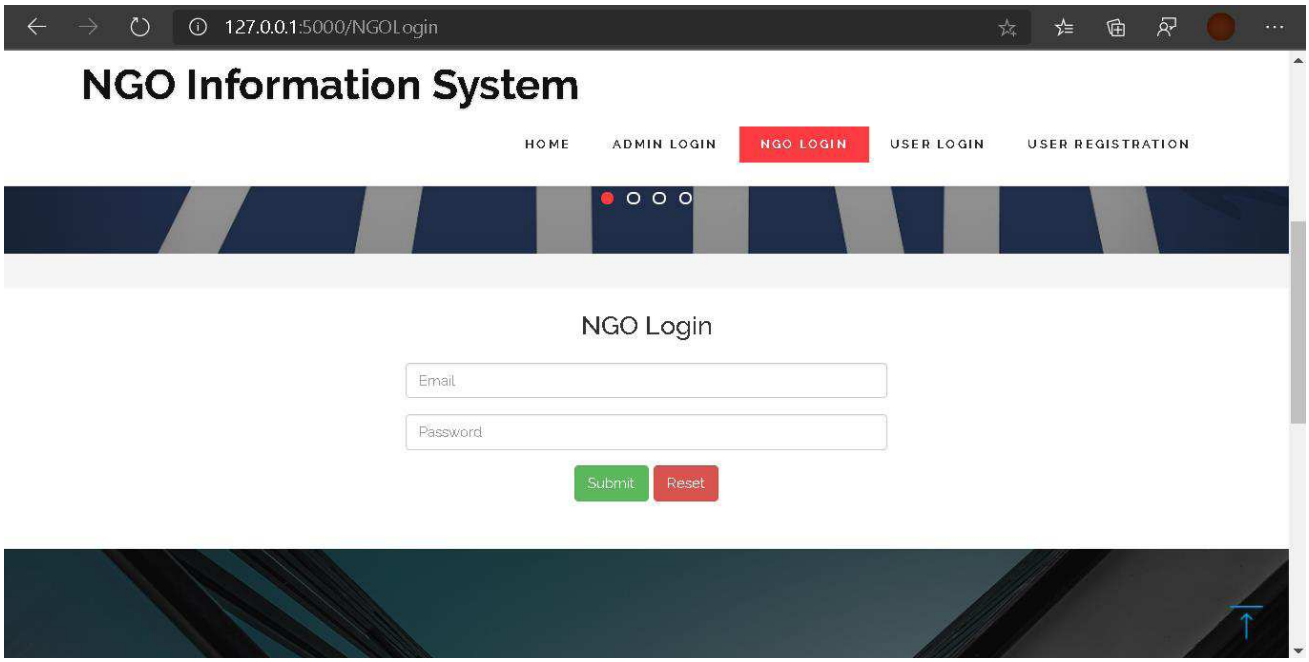
Search NGO Page



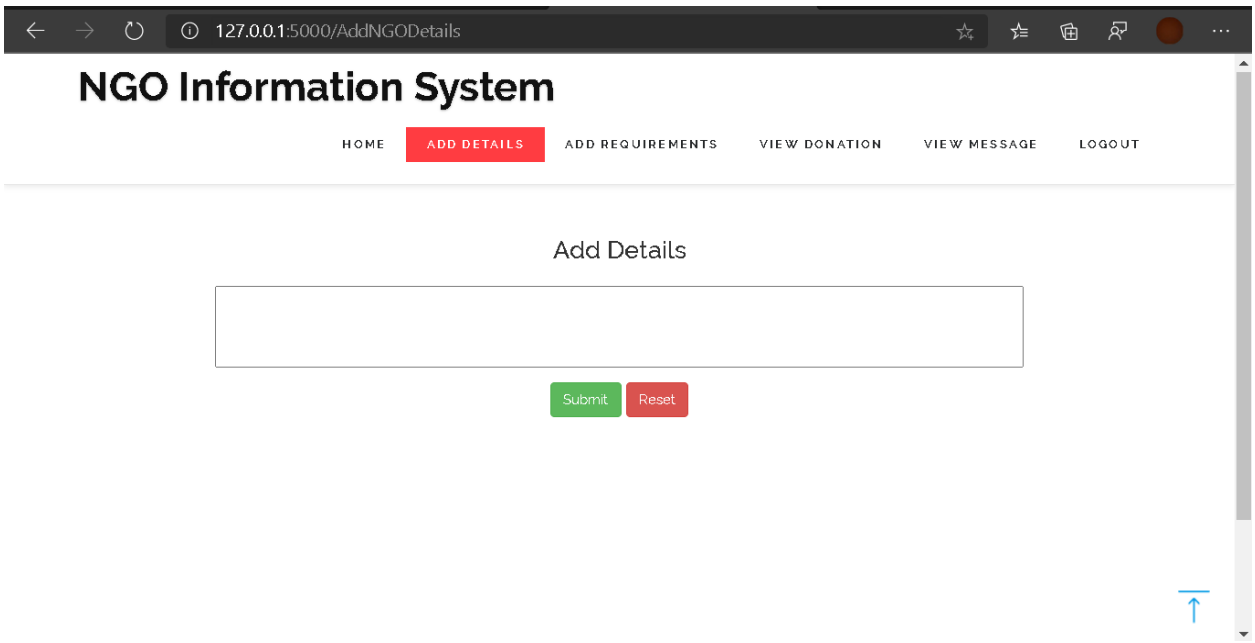
Donation Page



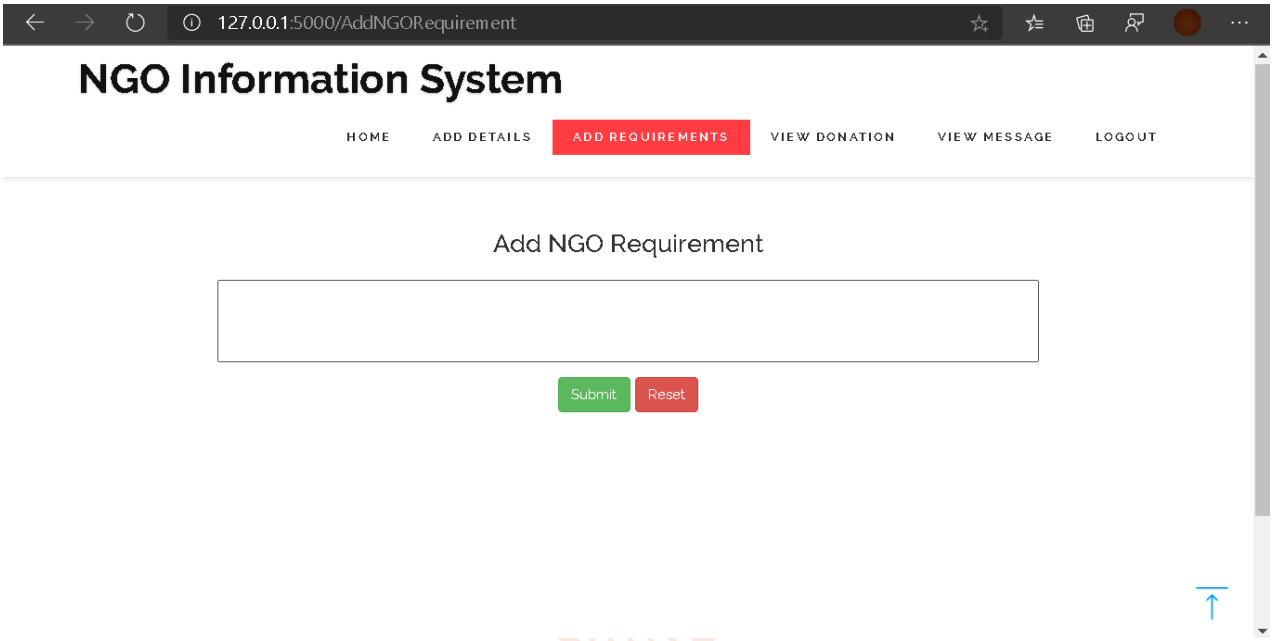
Page for adding message if want to donate other than money.



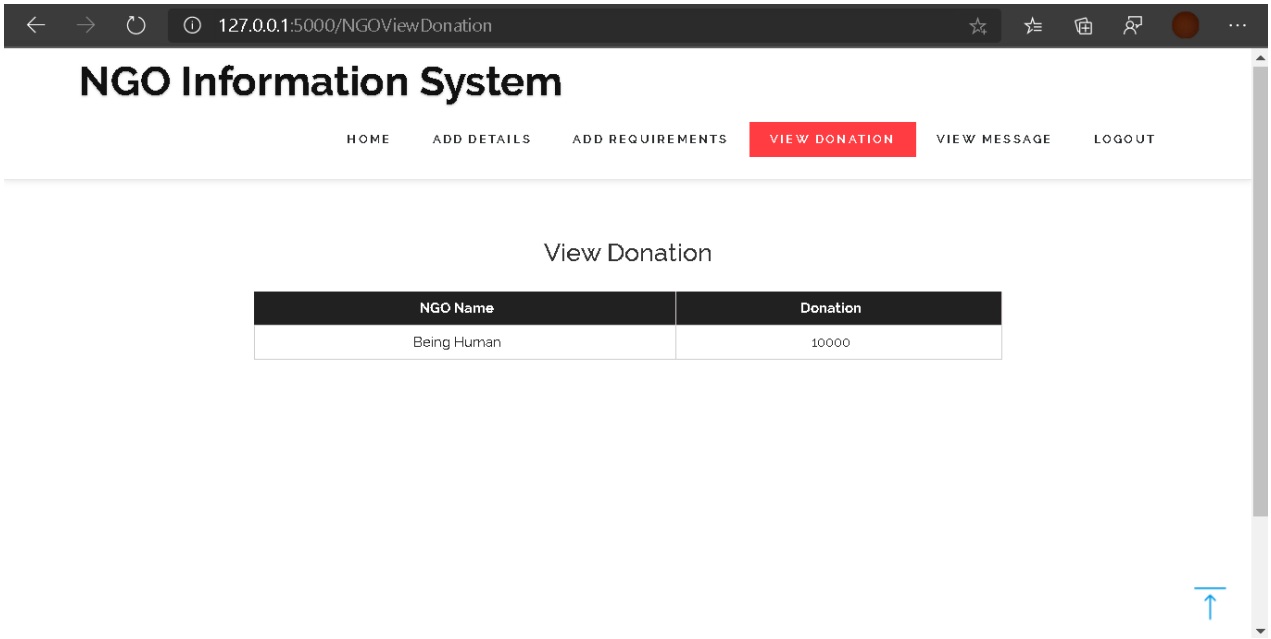
NGO Login Page



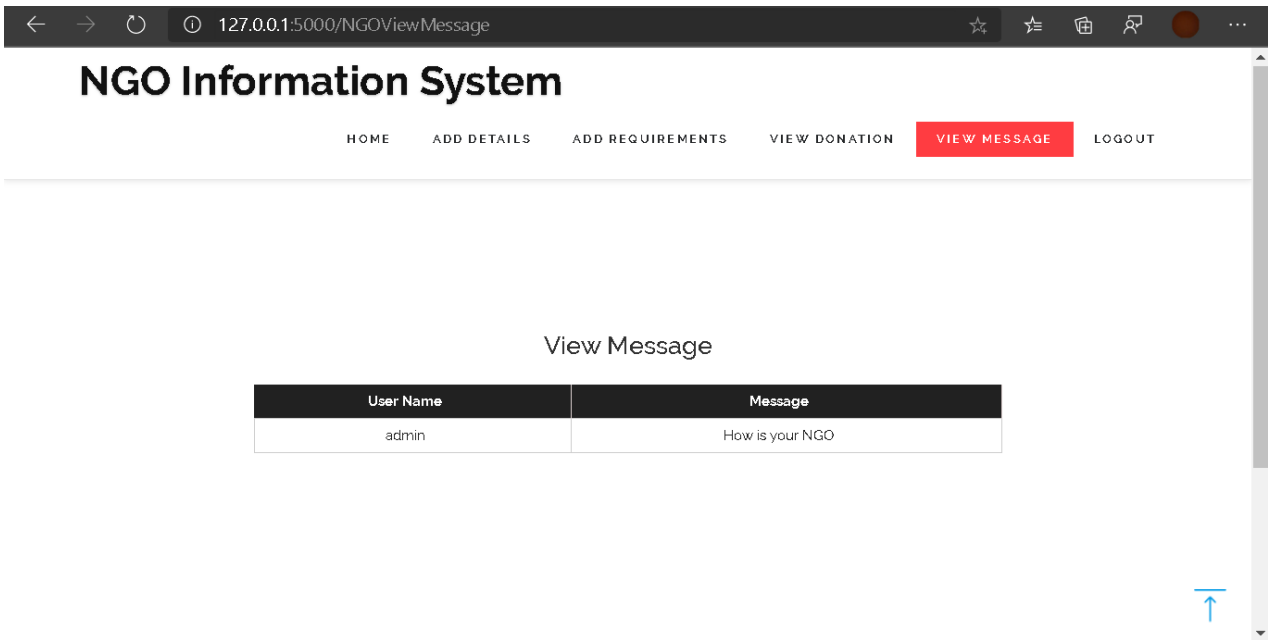
NGO Detail Page



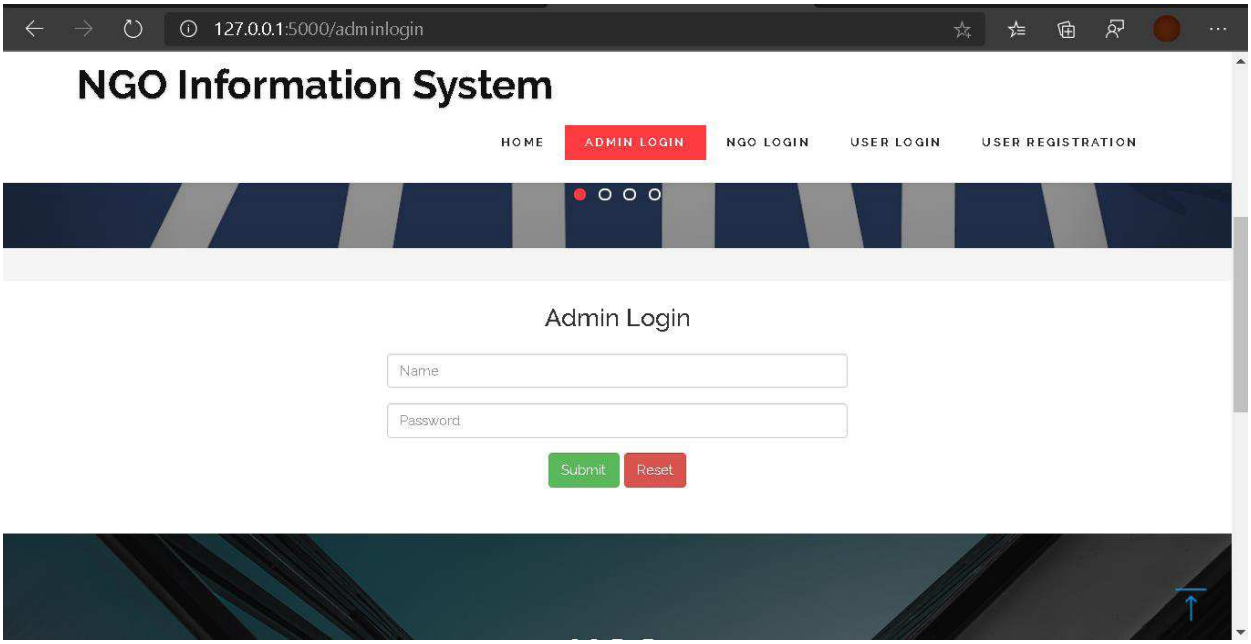
Add NGO Requirement Page



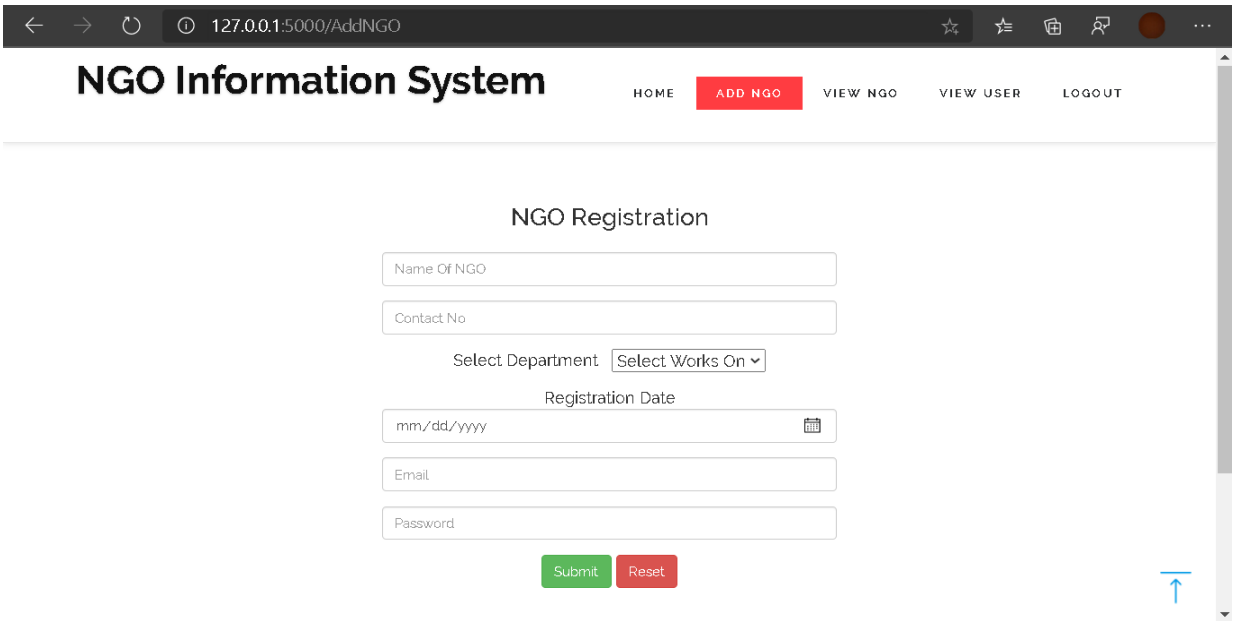
View Donation Page



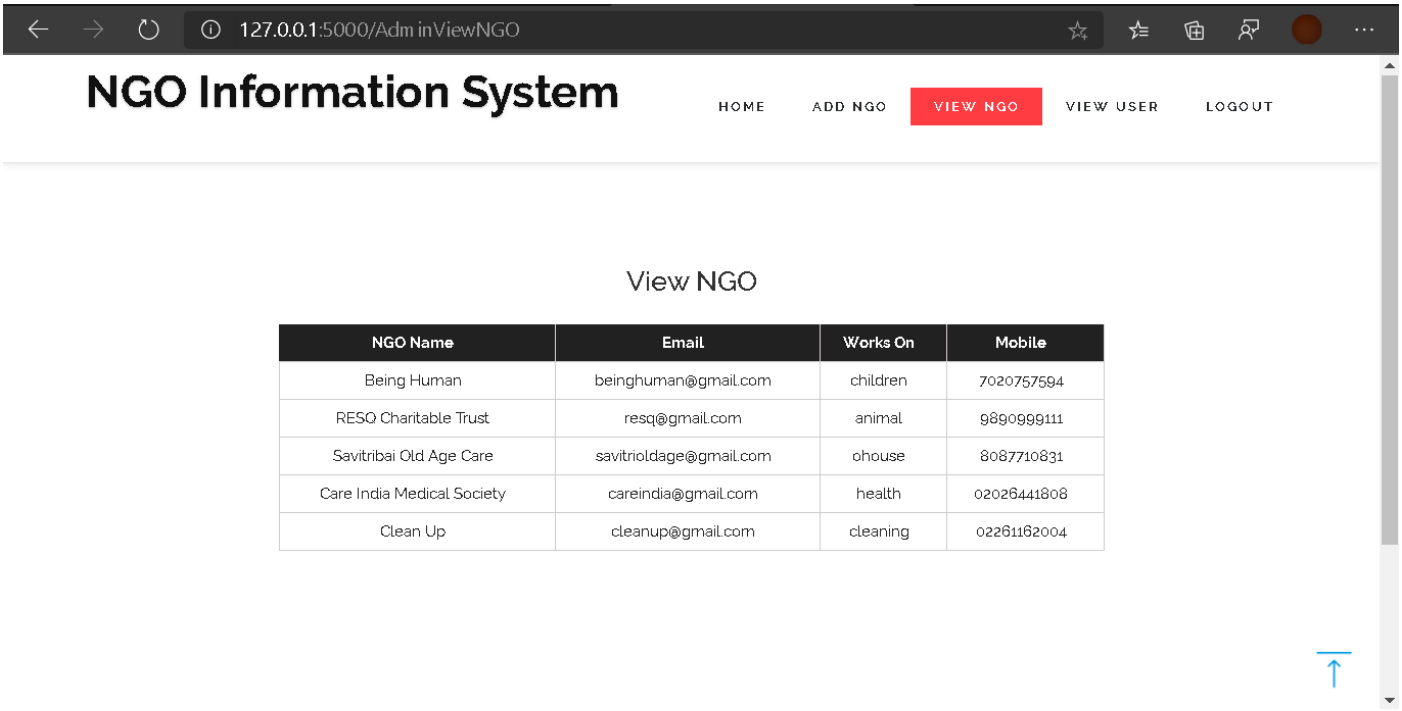
View Message Page



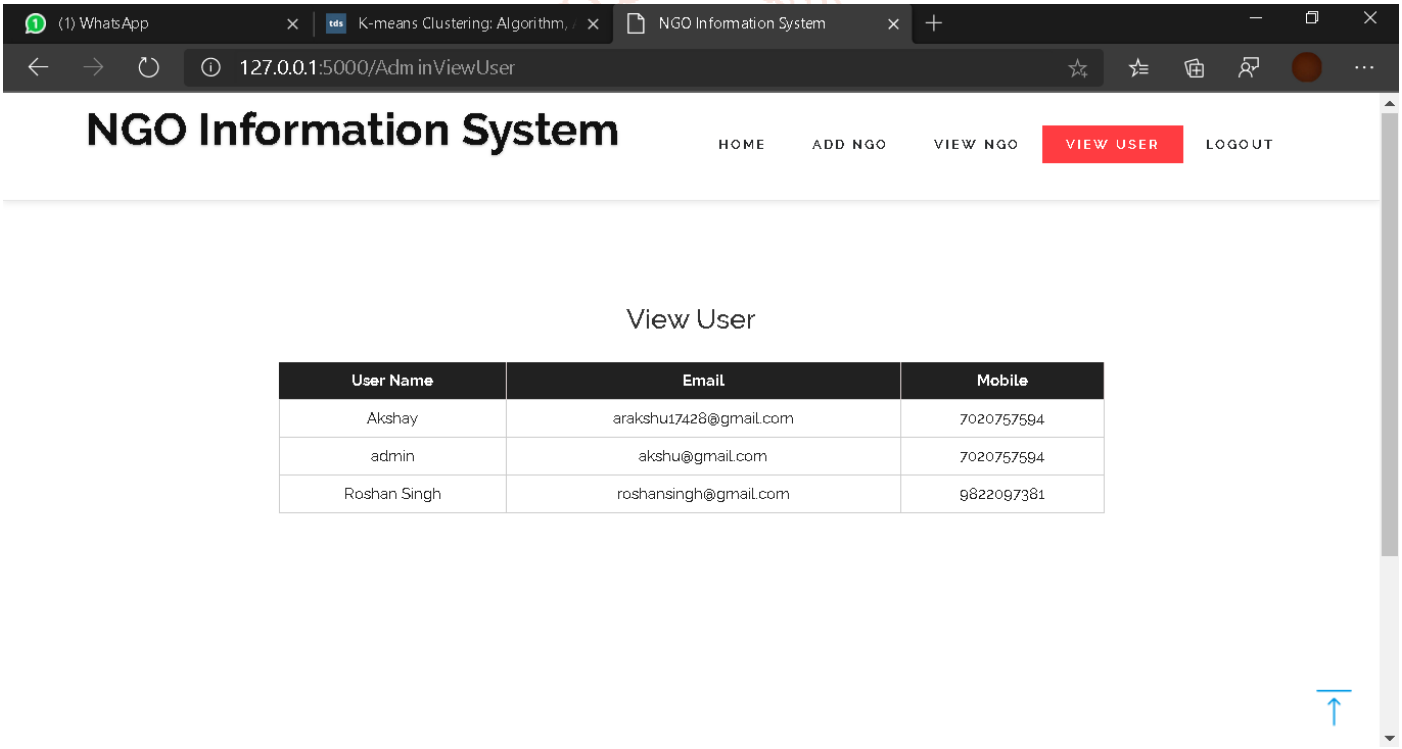
Admin Login Page



Add NGO Page



View Added NGOs Page



View User Page

9. CONCLUSIONS

9.1. Conclusion

Web portal not only solve the issues faced by NGO‟s but also the other organizations, donors, volunteer. It will serve as common platform for different categories of NGO. Searching a suitable event will be easy for volunteer. Donor can make donations according to wish list of NGO. It will be user friendly for users i.e., NGO‟s, volunteer, social organizations, donor etc.

9.2. Future Scope

In future this system will enhance with different NGO categories with other enhance system, and its capacity of the system will increase with different application use.

9.3. Applications

- To use society
- To use Government
- Scholes and colleges also this system can use.

Appendix A: Problem statement feasibility assessment using, satisfiability analysis and NP Hard, NP-Complete or P type using modern algebra and relevant mathematical models.

Definitions: P, NP, NP-Hard, NP-Complete Problems:

P Class of problems: Solutions to P class of problems have deterministic algorithms running in polynomial.

NP Class of problems: Solutions to NP class of problems have non-deterministic algorithms running in polynomial.

NP-Hard class of problems: A problem is in NP-Hard class if an already proved NP-Hard problem reduces to it.

NP-Complete class of problems: A problem is NP-Complete if it is NP-Hard and it is NP (i.e. there exists a non-deterministic algorithm running in polynomial time which solves it).

Therefore, our system is NP-Complete.

Appendix B: Details of paper publication: name of the conference/journal, comments of reviewers, certificate, paper

Paper Details:

Journal Name: International Engineering Research Journal (IERJ)

ISSN No: 2395-1621

Paper Title: Analysis of Philanthropist for Internal NGO Management using Data Mining

Author Name: Rupal Singh, Nikhita Singh, Roshan Singh, Pravendra Kumar Singh

Status: Published

Certificate:

Journal Name: JETIR (UGC Approved)
ISSN No:
Paper Title:
Author Name:
Status:
Certificate:

Appendix C: Plagiarism Report

References

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[2] "Assessing Online Behaviors through Discussion Forums in NGO's Daily Working Life", by Yao-Jen Chang, Yu-Chia Chuang, Tsen-Yun Wang, Yao-Sheng Chang

[3] "Online Monitoring System(OMS) ,an Online tool for centralized monitoring of NGOs", by Ravi Shankar, VIT University ,Vellore, India and Narita ,School of Information Technology and Engineering.

[4] "NON-GOVERNMENT ORGANIZATIONS: PROBLEMS & REMEDIES IN INDIA", by KakumaniLavanya and Lathaand Kotte Prabhakar Ellison, M. Firm foundations: Improving NGO data collection

[5] "An introduction to NGO Management" (Iranian Studies Group at MIT) June 2005