INSTITUTE FOR ADVANCED COMPUTING ANDSOFTWARE DEVELOPMENT (IACSD), AKURDI, PUNE

Documentation On

E-Helping Hands

PG-DAC March 2023

Submitted By:

Group No: 90

Roll No.	Name:
233189	Priti Mundhe
233196	Rutuja Khalate

Mrs. Monika Sindhikar & Mr. Harshal Waghchaure

Project Guide

Mr. Rohit Puranik

Centre Coordinator

ABSTRACT

This project is a web-based E-Helping Hands for an existing NGO. The project objective is to manage the common platform of NGOs and donations.

The system is an attempt to provide the advantages of common platform for managing NGOs and making donations for visitors online. It helps to manage NGO functionality and donation for visitors from anywhere through internet by using a website device. Thus, without using paper or pen or without going anywhere, one can get updated using this common platform.

This will be beneficial to all the members who wants to donate for NGO and also those who wants to donate anonymously. This application will travel worldwide and any members will have an access to it. Understanding the needs of the NGOs and to overcome the manual work of the documentation and make it online which will be feasible and flexible and try to make it user friendly.

ACKNOWLEDGEMENT

I take this occasion to thank God, almighty for blessing us with his grace and taking our endeavor to a successful culmination. I extend my sincere and heartfelt thanks to our esteemed guide, **Mrs. Monika and Mr. Harshal** for providing me with the right guidance and advice at the crucial juncture sand for showing me theright way. I extend my sincere thanks to our respected **Centre Co-Ordinator Mr. Rohit Puranik**, for allowing us to use the facilities available. I would like to thank the other faculty members also, at this occasion. Last but not the least, I would like to thank my friends and family for the support and encouragement theyhave given me during the course of our work.

Priti Mundhe (233189)

Rutuja Khalate (233196)

Table of Contents

LIST OF FIGURES

Introduction

E-Helping Hands is application software which is used to provide the unique platform for people who are willing to donate money and for NGOs who need help.

We provide list of NGOs and information about activities done by registered NGOs according to their category. People can register and then donate the money to NGO when they wants, donor can donate money anonymously also. We provide facility for NGOs to register.

Document Purpose

The advancement in Information Technology and internet penetration has greatly enhanced various student related processes and communication between students and organization. This Student Management System and Performance calculations is developed to provide the following services:

Problem Statement

Most of the NGO management systems are for individual NGOs, and the NGO's which are there in rural area cannot get chance to explore their work around the world, provide the unique platform which provides the list of NGOs according to different categories.

Product Scope

"E-HELPING HANDS" is a project with a mission to provide the unique platform for people who are willing to donate money and for NGOs who need help. Thus, the overall system will consist of a NGO's Database System and Web Interface. The NGO Database System will supply the fundamental database structure of the entire system where as Web Interface will provide a secure Web interface between the users and the database. The Software aims to provide the unique platform for people who are willing to donate money and for NGOs who need help. The software will help the following levels of user in viewing the information. The role of admin in this project is to manage the NGO's and Visitor's Donation.

- Admin Level
- NGO Level
- Visitor level

Aims & Objectives

Specific goals are: -

- To produce a web-based system that allow the admin to add NGO. and maintain the records of donations.
- To ease NGO by providing different functionalities.
- To maintain the donations of visitor and maintain records.

Overall Description

System Analysis:

System analysis is the process of gathering and interpreting facts, diagnosing problems, and usingthe information to recommend improvements on the system. System analysis is a problem-solvingactivity that requires intensive communication between the system users and system developers.

System analysis or study is an important phase of any system development process. The system isviewed as a whole, the inputs are identified, and the system is subjected to close study to identify the problem areas. The solutions are given as a proposal. The proposal is reviewed on user requestand suitable changes are made. This loop ends as soon as the user is satisfied with the proposal.

Existing system function:

Existing system for a NGO management are for individual NGOs. The people who are willing to donate money to NGO need to search for different NGO, and it is difficult to get the multiple NGO's of same the same category at one place. Because of this some NGOs are not able to explore their work to outside world, Sometimes the NGO's which are there in rural area didn't get chance to explore their work.at is it not possible for them to connect with the large amount of people around the world who are willing to donate the money and to help the people.

PROPOSED SYSTEM

- **Product functionality:**

E-Helping Hands provides the features for admin, NGO and visitor. It includes several functionalities describes as below:

- ***Admin Management:***

It provides facility to add, and view the NGOs, and it can also view the donors and donation amount for all NGO's, it can add the category also.

- ***Donation:***

Donor can donate the money by registering to the system, donor can donate to multiple NGOs at the same time.

- ***Anonymous Donation:***

The people who don't want to show their identity while donating the money can donate the money anonymously.

- ***NGO Management:***

The project helps the NGOs to see all the donations by registered donors and anonymous donors.

Specific Requirement Specification:

General Description:

Product Description:

E-Helping Hands:

A tool through which admin can register a NGO and People can donate the money to NGO. The admin also receives some set of functionalities which help in managing the NGO.

NGO Management:

To be able to use internet technology to project to the global world instead of limiting their services to their local domain alone, thus increase their return on investment (ROI).

Benefits of E-Helping Hands System

- This online donation system is fully functional and flexible.
- It is very easy to use.
- This online donation management system helps in providing the platform for donors who wants to donate the money and for NGO's who need help.
- It saves a lot of time.
- It increases the efficiency of the management at offering quality services to the donors.
- It provides custom features development and support with the application.

Functional Requirements:

Admin:

- Admin can login to the system.
- View the list of all Categories.
- View the list of all NGOs.
- Add new NGO.
- Add new Category.
- View the donations of registered donors.
- View the donations of anonymous donors

NGO:

- NGO can login to the system.
- View donations of registered donors.
- View donations of anonymous donors.
- View donors list

Visitor:

- Visitor can login to the system
- View NGOs list
- Make donations.

NON-FUNCTIONAL REQUIREMENTS

i. EFFICIENCY REQUIREMENT

When admin, NGO or visitor visits system it should access in an efficient manner.

ii. RELIABILITY REQUIREMENT

The system should provide a reliable environment to admin and NGO. All data should be store on server.

iii. USABILITY REQUIREMENT

The Web application is designed for user friendly environment and ease of use.

iv. IMPLEMENTATION REQUIREMENT

Implementation of the system using React in front end with Spring Boot as back end and it will beused for database connectivity. And the database part is developed by MySQL. Responsive web designing is used for making the website compatible for any type of screen.

External Interface Requirements:

User Interfaces:

- All the users will see the same page when they enter in this website. This page will show the list of categories of NGO's.
- By viewing the list of categories, the user can see the list of NGOs according to selected category.
- The user interface will be simple and consistence, using terminology commonly understood by intended users of the system. The system will have simple interface, consistence with standard interface, to eliminate need for user training of infrequent users

Hardware Interfaces:

- No extra hardware interfaces are needed.
- The system will use the standard hardware and data communication resources.
- This includes, but not limited to, general network connection at the server/hosting site, network server and network management tools.

Operating Environment:

Server Side:

Processor: Intel® Xeon® processor 3500 series

HDD: Minimum 500GB Disk Space

RAM: Minimum 2GB

OS: Windows 8.1

Database: MYSQL

Client Side (minimum requirement):

Processor: Intel Dual Core

HDD: Minimum 80GB Disk Space

RAM: Minimum 1GB

OS: Windows 7

Design and Implementation Constraints:

- The application will use reactJS as main web technologies.
- HTTP protocol is used as communication protocols. client can access system via HTTP protocol Several types of validations make this web application a secured one.
- Since E-Helping Hands is a web-based application, internet connection must be established.
- The E-Helping Hands will be used on PCs and will function via internet or intranet in any web browser.

Application Interfaces:

OS: Windows 7

Web Browser:

The system is a web-based application; clients need a modern web browser such as Mozilla Firebox, Internet Explorer, Opera, and Chrome. The computer must have an Internet connection in order to be able to access the system.

Communications Interfaces:

- This system uses communication resources which includes but not limited to, HTTP protocol for communication with the web browser and web server and TCP/IP network protocol with HTTP protocol.
- This application will communicate with the database that holds all the donation information. Users can contact with server side through HTTP protocol by means of a function that is called HTTP Service. This function allows the application to use the data retrieved by server to fulfil the request fired by the user.

DATABASE DESIGN

3.1 DATABASE

Databases are the storehouses of data used in the software systems. The data is stored in tables inside the database. Several tables are created for the manipulation of the data for the system. Two essential settings for a database are

- Primary key - the field that is unique for all the record occurrences
- Foreign key - the field used to set relation between tables

Normalization is a technique to avoid redundancy in the tables.

3.2 SYSTEM TOOLS

The various system tools that have been used in developing both the front end and the back end of the project are being discussed in this chapter.

FRONT END:

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

BACKEND:

The back end is implemented using MySQL which is used to design databases.

MySQL:

MySQL is the world's second most widely used open-source relational database management system (RDBMS). The SQL phrase stands for Structured Query Language.

Spring-Boot:

This is used to connect MYSQL and fetch data from database and store the data in database.
The Spring Framework is an application framework and inversion of control container for the Java platform. The frame work's core features can be used by any Java application, but there are extensions for building web applications on top of the Java EE (Enterprise Edition) platform. Although the framework does not impose any specific programming model, it has become popular in the Java community as an addition to the Enterprise JavaBeans (EJB) model. The Spring Framework is Open-source Framework

System Design

Activity Diagram

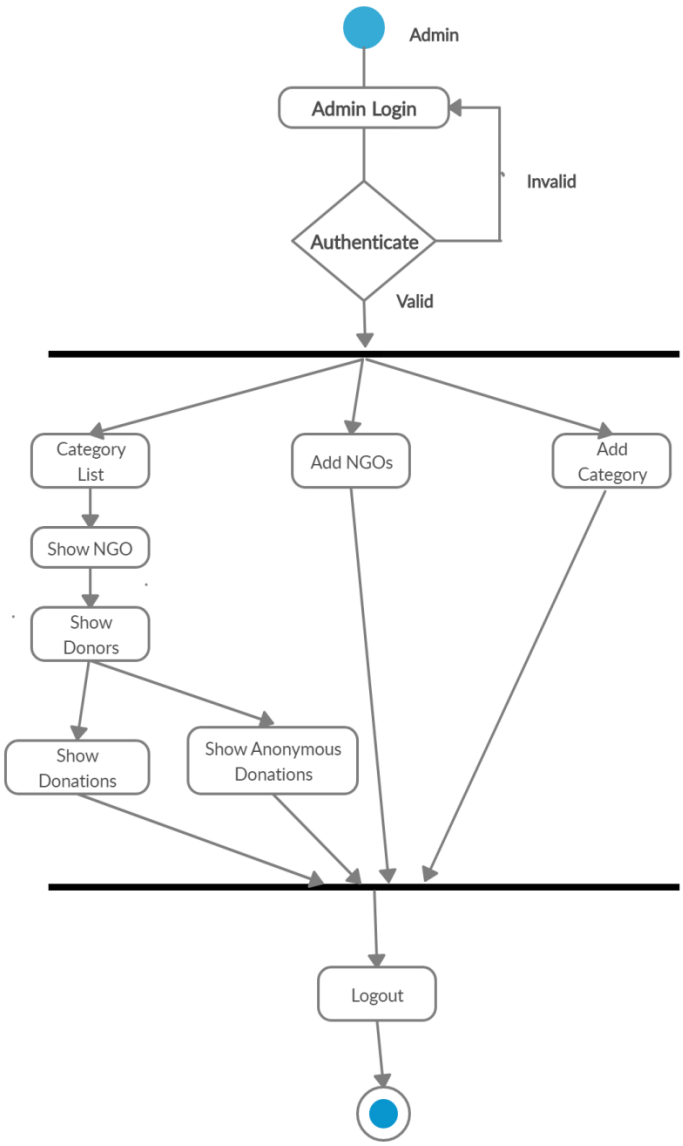


Figure 1 Admin Activity Diagram

Data Flow Diagrams:

Figure 2: 0 Level Data Flow Diagram

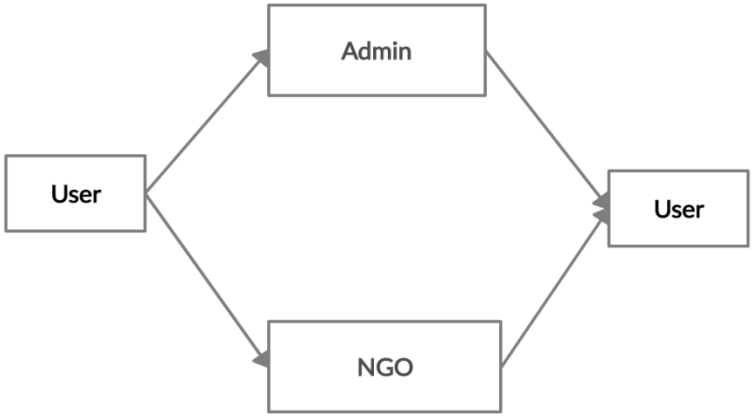


Figure 3: 1 Level Data Flow Diagram

Use Case Diagrams:

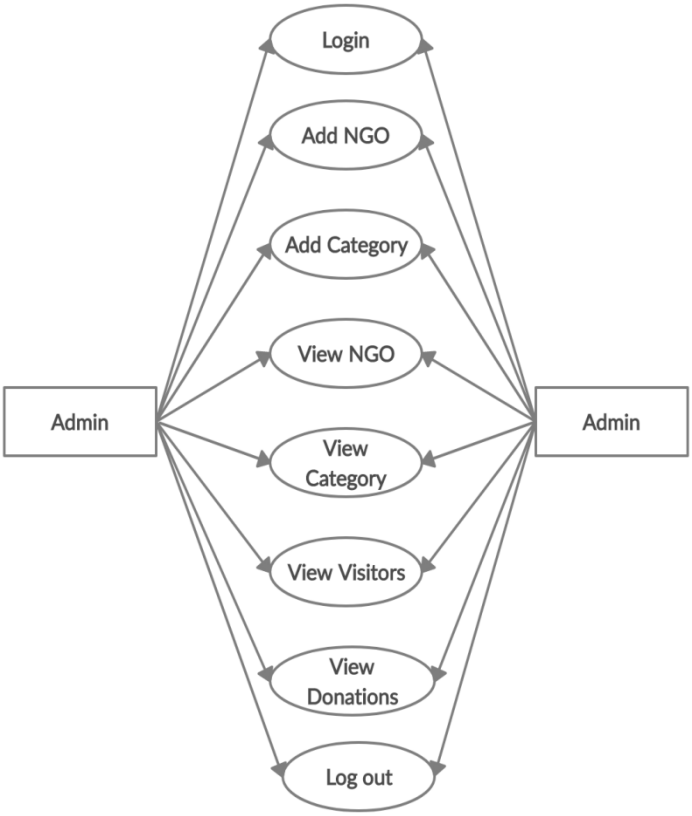


Figure 4: Use Case Diagram for Admin

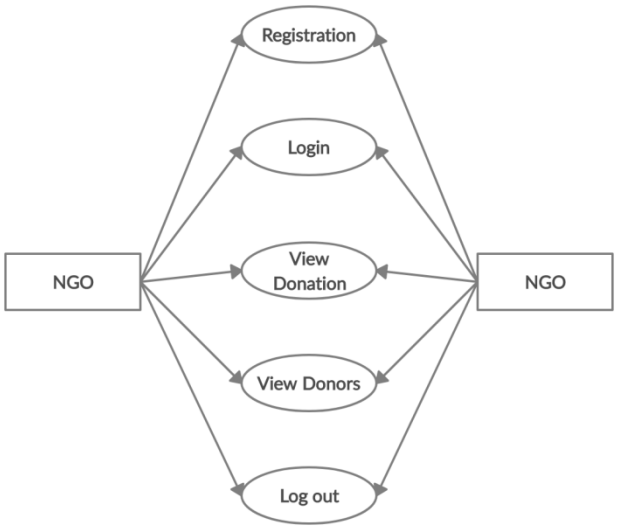


Figure 5: Use Case Diagram for NGO

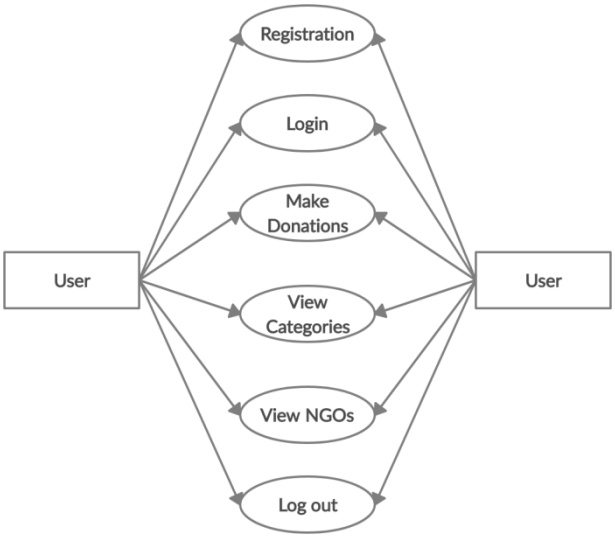


Figure 5: Use Case Diagram for User

Class Diagram:

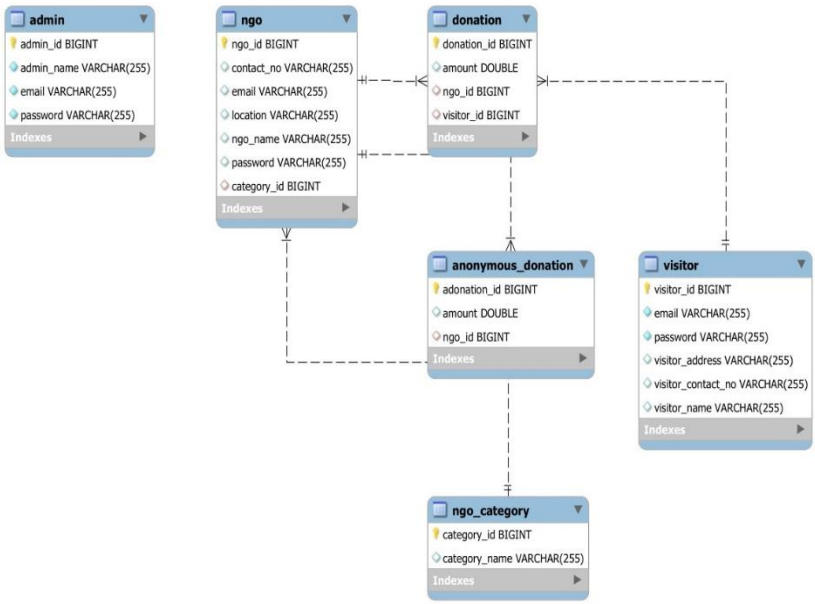


Figure 6: Class Diagram

E-R Diagram:

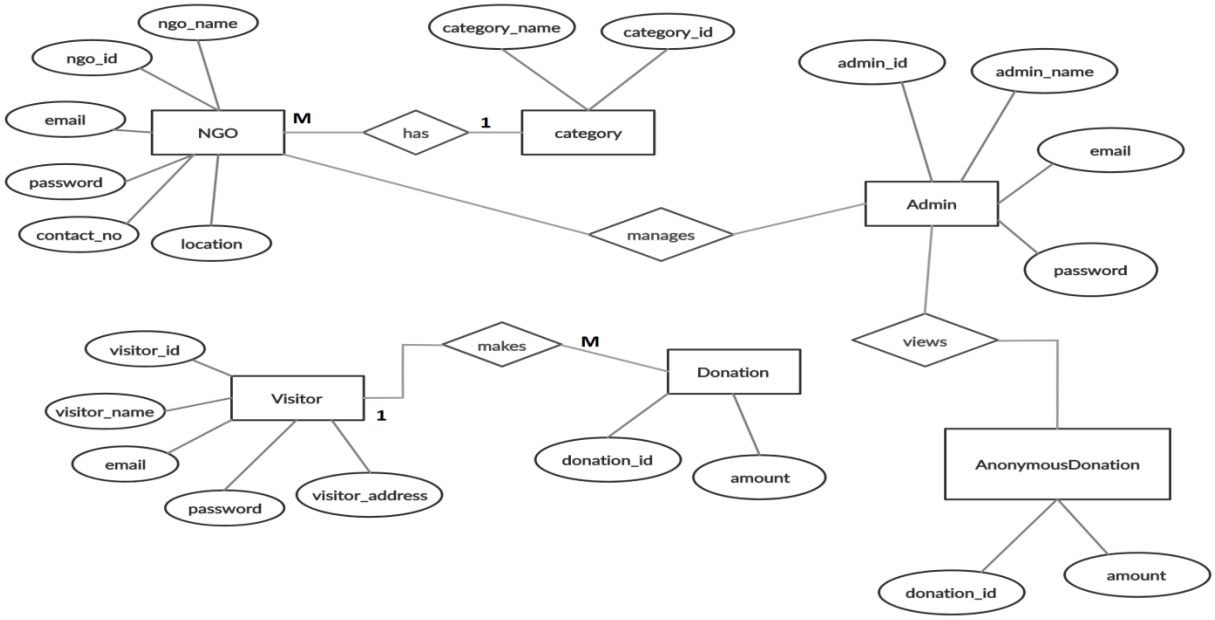


Figure 7: E-R Diagram

Table Structure:

Admin

```
mysql> desc admin;
+------------+--------------+------+-----+---------+----------------+
| Field      | Type         | Null | Key | Default | Extra          |
+------------+--------------+------+-----+---------+----------------+
| admin_id   | bigint       | NO   | PRI | NULL    | auto_increment |
| admin_name | varchar(255) | NO   |     | NULL    |                |
| email      | varchar(255) | NO   | UNI | NULL    |                |
| password   | varchar(255) | NO   |     | NULL    |                |
+------------+--------------+------+-----+---------+----------------+
4 rows in set (0.01 sec)
```

Ngo_Category:

```
mysql> desc ngo_category;
+---------------+--------------+------+-----+---------+----------------+
| Field         | Type         | Null | Key | Default | Extra          |
+---------------+--------------+------+-----+---------+----------------+
| category_id   | bigint       | NO   | PRI | NULL    | auto_increment |
| category_name | varchar(255) | YES  |     | NULL    |                |
+---------------+--------------+------+-----+---------+----------------+
2 rows in set (0.00 sec)
```

Visitor:

```
mysql> desc visitor;
+------------------+-------------+------+-----+---------+----------------+
| Field            | Type        | Null | Key | Default | Extra          |
+------------------+-------------+------+-----+---------+----------------+
| visitor_id       | bigint      | NO   | PRI | NULL    | auto_increment |
| email            | varchar(255)| NO   | UNI | NULL    |                |
| password         | varchar(255)| NO   |     | NULL    |                |
| visitor_address  | varchar(255)| YES  |     | NULL    |                |
| visitor_contact_no| varchar(255)| YES |     | NULL    |                |
| visitor_name     | varchar(255)| YES  |     | NULL    |                |
+------------------+-------------+------+-----+---------+----------------+
6 rows in set (0.00 sec)
```

NGO:

```
mysql> desc ngo;
+-------------+--------------+------+-----+---------+-------+
| Field       | Type         | Null | Key | Default | Extra |
+-------------+--------------+------+-----+---------+-------+
| ngo_id      | bigint       | NO   | PRI | NULL    |       |
| contact_no  | varchar(255) | YES  |     | NULL    |       |
| email       | varchar(255) | YES  |     | NULL    |       |
| location    | varchar(255) | YES  |     | NULL    |       |
| ngo_name    | varchar(255) | YES  |     | NULL    |       |
| password    | varchar(255) | YES  |     | NULL    |       |
| category_id | bigint       | YES  | MUL | NULL    |       |
+-------------+--------------+------+-----+---------+-------+
7 rows in set (0.00 sec)
```

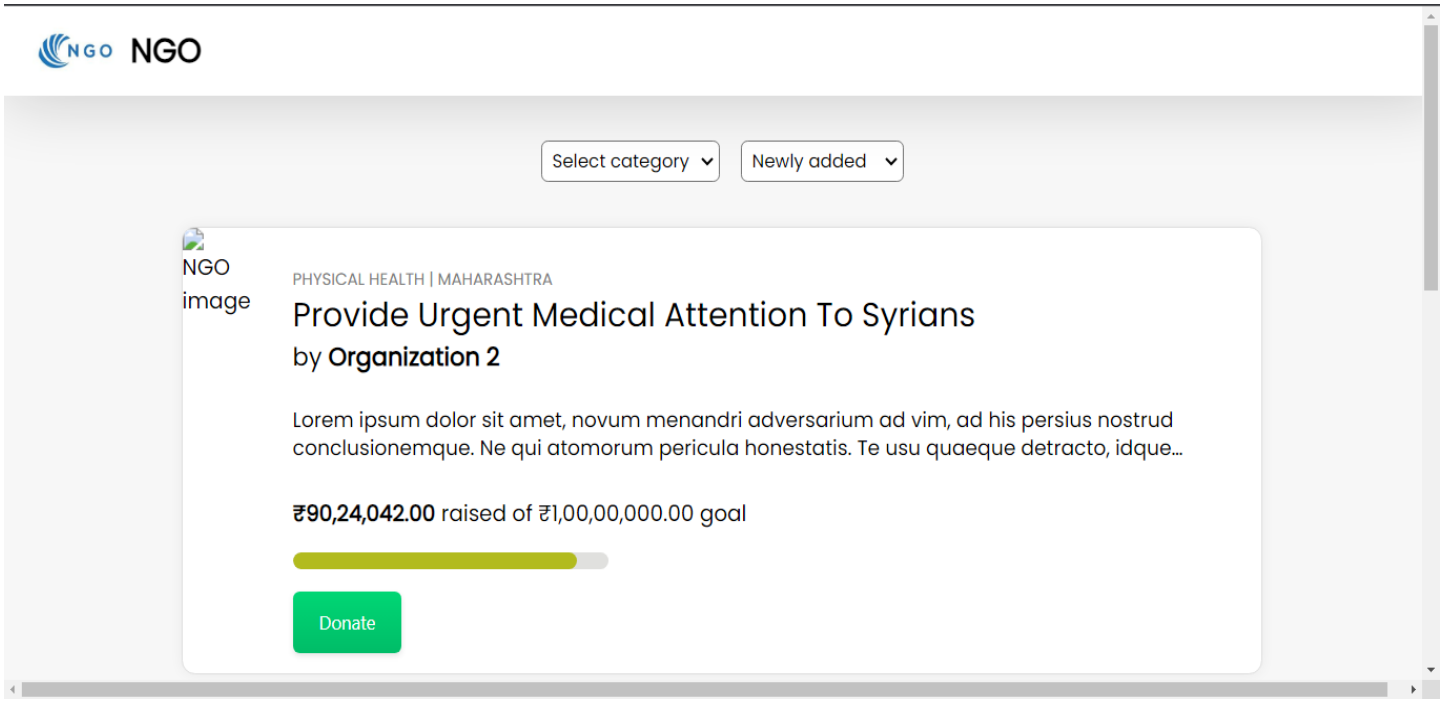
Donation:

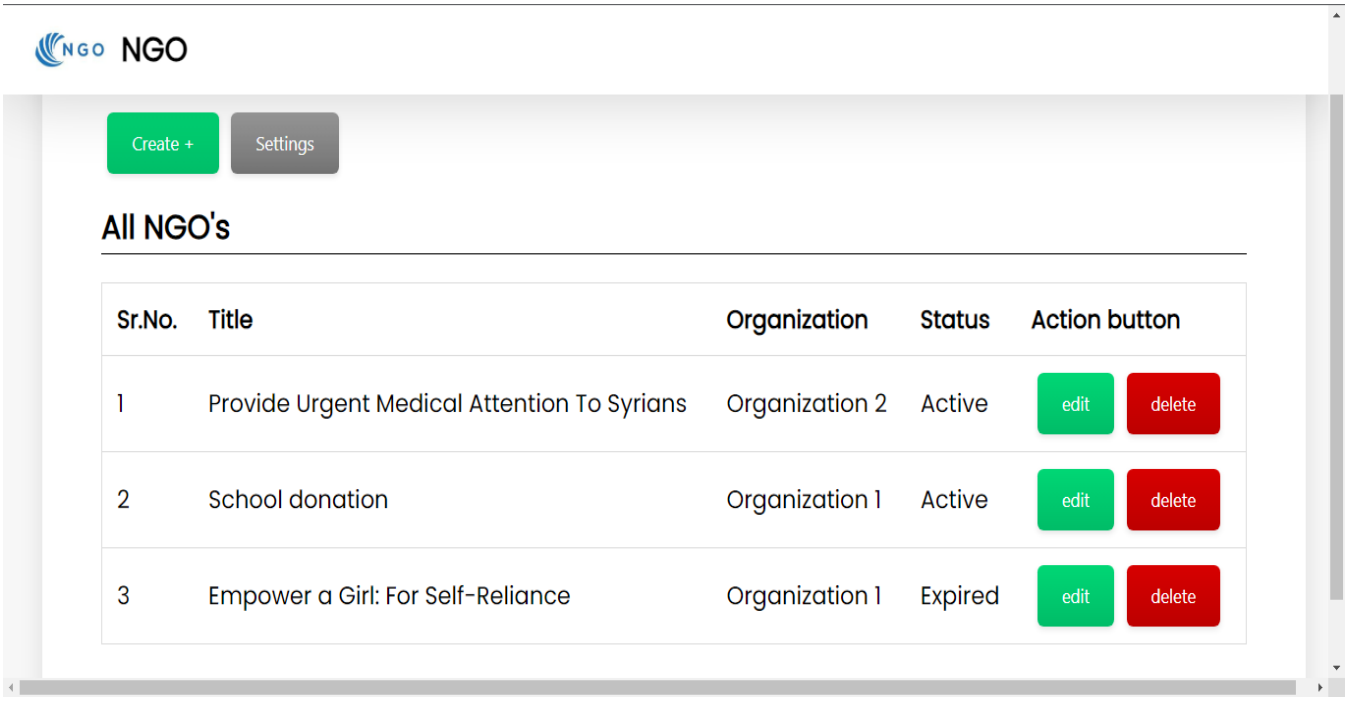
```
mysql> desc donation;
+-------------+--------+------+-----+---------+----------------+
| Field       | Type   | Null | Key | Default | Extra          |
+-------------+--------+------+-----+---------+----------------+
| donation_id | bigint | NO   | PRI | NULL    | auto_increment |
| amount      | double | YES  |     | NULL    |                |
| ngo_id      | bigint | YES  | MUL | NULL    |                |
| visitor_id  | bigint | YES  | MUL | NULL    |                |
+-------------+--------+------+-----+---------+----------------+
4 rows in set (0.00 sec)
```

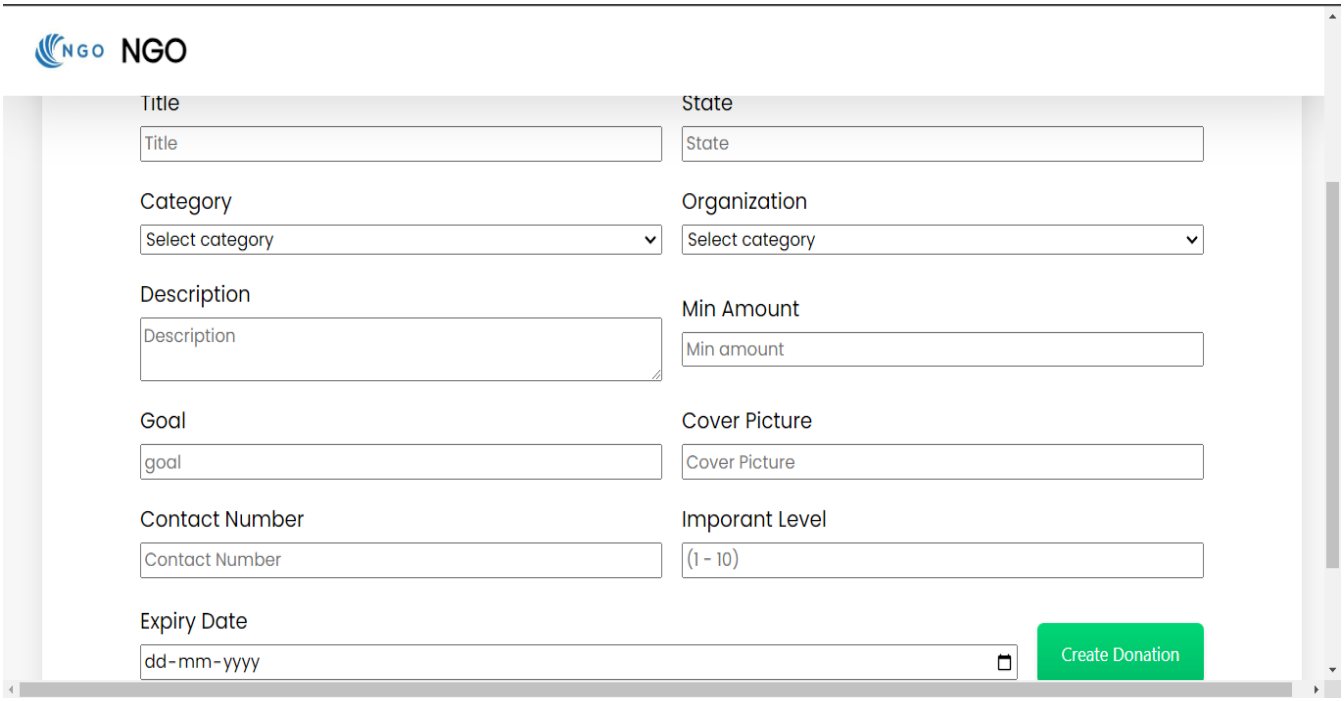
Anonymous_Donation:

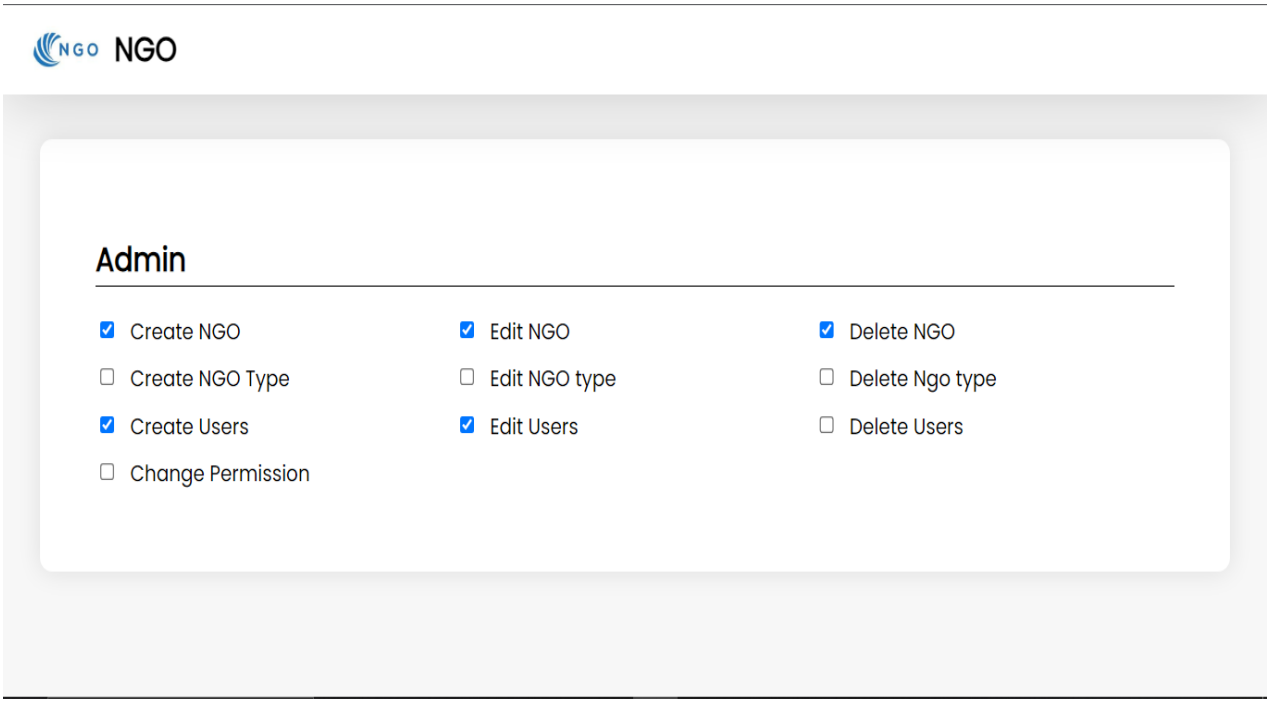
```
mysql> desc anonymous_donation;
+--------------+--------+------+-----+---------+----------------+
| Field        | Type   | Null | Key | Default | Extra          |
+--------------+--------+------+-----+---------+----------------+
| adonation_id | bigint | NO   | PRI | NULL    | auto_increment |
| amount       | double | YES  |     | NULL    |                |
| ngo_id       | bigint | YES  | MUL | NULL    |                |
+--------------+--------+------+-----+---------+----------------+
3 rows in set (0.01 sec)
```

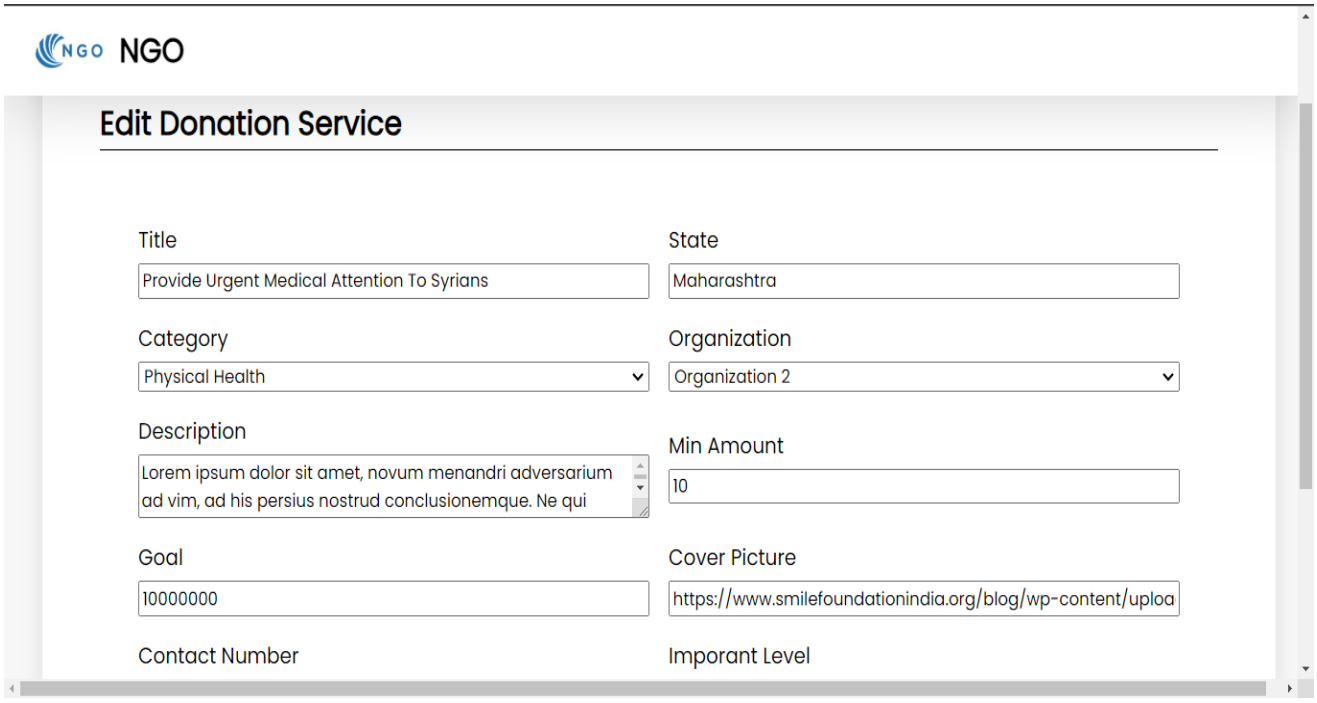
PROJECT DIAGRAMS:

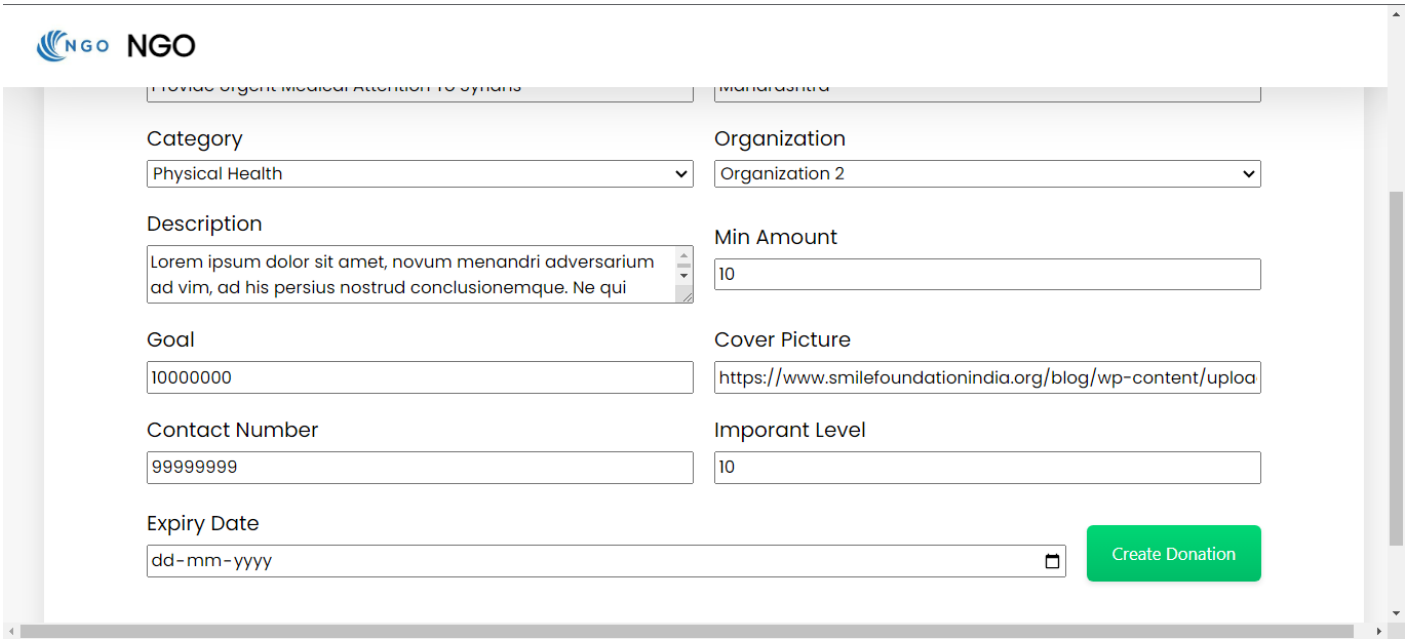



NGO
Create +
Settings
All NGO's
Sr.No.
Title
Organization
Status
Action button
1
Provide Urgent Medical Attention To Syrians
Organization 2
Active
edit
delete
2
School donation
Organization 1
Active
edit
delete
3
Empower a Girl: For Self-Reliance
Organization 1
Expired
edit
delete


NGO
Title
Title
State
State
Category
Select category
Organization
Select category
Description
Description
Min Amount
Min amount
Goal
goal
Cover Picture
Cover Picture
Contact Number
Contact Number
Imporant Level
(1 - 10)
Expiry Date
dd-mm-yyyy
Create Donation


NGO
Admin
Create NGO
Edit NGO
Delete NGO
Create NGO Type
Edit NGO type
Delete Ngo type
Create Users
Edit Users
Delete Users
Change Permission


NGO
Edit Donation Service
Title
Provide Urgent Medical Attention To Syrians
State
Maharashtra
Category
Physical Health
Organization
Organization 2
Description
Lorem ipsum dolor sit amet, novum menandri adversarium ad vim, ad his persius nostrud conclusionemque. Ne qui
Min Amount
10
Goal
10000000
Cover Picture
https://www.smilefoundationindia.org/blog/wp-content/uploa
Contact Number
Imporant Level


NGO
Category
Physical Health
Organization
Organization 2
Description
Lorem ipsum dolor sit amet, novum menandri adversarium ad vim, ad his persius nostrud conclusionemque. Ne qui
Min Amount
10
Goal
10000000
Cover Picture
https://www.smilefoundationindia.org/blog/wp-content/uploa
Contact Number
99999999
Imporant Level
10
Expiry Date
dd-mm-yyyy
Create Donation

CONCLUSION

The project entitled **E-Helping Hands** was completed successfully.

The system has been developed with much care and free of errors and at the same time it is efficient and less time consuming. The purpose of this project was to develop a web application as a common platform for donation & management.
This project helped us in gaining valuable information and practical knowledge on several topics like designing web pages using React.js, usage of responsive templates, designing of web applications, and management of database using MySQL. The entire system is secured. Also, the project helped us understanding about the development phases of a project and software development life cycle. We learned how to test different features of a project.
This project has given us great satisfaction in having designed an application which can be implemented to any nearby shops or branded shops selling various kinds of products by simple modifications.

There is a scope for further development in our project to a great extent. A number of features can be added to this system in future like providing payment gateway for maintainace donation and maintain their records in dashboard. Another feature we wished to implement was searching NGOs without login to system with the first page of “Search NGO”. Also wish to add each Visitor profile store in data as well as NGOs with their information in the system. These features could have implemented unless the time did not limit us.

REFERENCES

[1] JavaScript Enlightenment, Cody Lindley-First Edition, based on JavaScript 1.5, ECMA-262, Edition

[2] Mc Graw Hill's, Java: The complete reference 7thEdition, Herbert Scheldt

[3] Complete CSS Guide, Maxine Sherrin and John Allsopp-O'ReillyMedia; September 2012

ONLINE REFERENCE

[1] www.Google.com
[2] www.w3school.com
[3] www.javatpoint.com
[4] www.stackoverflow.com
[5] www.reactbootstrap.com
[6] www.doc.spring.io/spring-framework.com
[7] www.geekforgeeks.com
[8] www.microsoftdoc.com
[9] www.geeksforpratice.com