

Project Name: Online Unused Medicine Donation And Distribution System For NGO's

Project Member:

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Abstract:

To meet the increasing demand for improvements in the health care facilities & services we can utilize the power of internet technology & its wide network, by which people can help each other with just one click from their phone. The main aim of this Project is to provide assistance and the required medicines to the people in need for free as not all people have the financial backing to afford expensive medicines.

In this project we will prepare a portal for the collection of unused medicine for further utilization by a needy person. The website must be like user can donate the unused medicine to NGO. That NGO can help needy people. Many poor people who do not afford to buy their own medicines, this website will help these people to get the medicine which they required to cure their respective diseases and the unused medicine will be utilized in good way.

Implementation Technologies:

- **Spring Framework:**

Spring Framework is a Java platform that provides comprehensive infrastructure support for developing Java applications. Spring handles the infrastructure so you can focus on your application.

Spring enables you to build applications from “plain old Java objects” (POJOs) and to apply enterprise services non-invasively to POJOs. This capability applies to the Java SE programming model and to full and partial Java EE.

1.1 Features of Spring Framework:

1. Lightweight

Spring is modular lightweight framework which allows you to selectively use any of its modules on the top of Spring Core.

2. Inversion of Control (IOC)

This is another top feature of Spring framework where application dependencies are satisfied by the framework itself. Framework creates the object in runtime and satisfies application dependencies.

3. Aspect Oriented Programming (AOP)

Aspect Oriented Programming (AOP) is very popular in programming world and in Spring it is well implemented. Developer can use Aspect Oriented Programming (AOP feature of Spring to develop application in which business logic is separated from system services.

4. Container

Spring provides their own container for managing the bean lifecycle.

5. MVC Framework

Spring MVC Framework is used for developing MVC based web applications.

1.2 Advantages of Spring Framework:

1. Solving difficulties of Enterprise application development

Spring is solving the difficulties of development of complex applications, it provides Spring Core, Spring IoC and Spring AOP for integrating various components of business applications.

2. Support Enterprise application development through POJOs

Spring supports development of Enterprise application development using the POJO classes which removes the need of importing heavy Enterprise container during development. This makes application testing much easier.

3. Easy integration other frameworks

Spring designed to be used with all other frameworks of Java, you can use ORM, Struts, Hibernate and other frameworks of Java together. Spring framework do not impose any restriction on the frameworks to be used together.

4. Application Testing

Spring Container can be used to develop and run test cases outside enterprise container which makes testing much easier.

5. Modularity

Spring framework is modular framework and it comes with many modules such as Spring MVC, Spring ORM, Spring JDBC, Spring Transactions etc. which can be used as per application requirement in modular fashion.

6. Spring Transaction Management

Spring Transaction Management interface is very flexible it can be configured to use local transactions in small application which can be scaled to JTA for global transactions.

- **The JDBC Template**

The central class of the Spring JDBC abstraction framework is the `JdbcTemplate` class that includes the most common logic in using the JDBC API to access data, such as handling the creation of connection, statement creation, statement execution, and release of resource. The `JdbcTemplate` class can be found in the `org.springframework.jdbc.core` package. The `JdbcTemplate` class instances are thread-safe once configured. A single `JdbcTemplate` can be configured and injected into multiple DAOs.

We can use the `JdbcTemplate` to execute the different types of SQL statements. Data Manipulation Language (DML) is used for inserting, retrieving, updating, and deleting the data in the database such as `SELECT`, `INSERT`, or `UPDATE` statements

2.1 MySQL

MySQL, the most popular Open Source SQL database management system, is developed, distributed, and supported by Oracle Corporation.

Features of MySQL:

- **MySQL is a database management system.**

A database is a structured collection of data. It may be anything from a simple shopping list to a picture gallery or the vast amounts of information in a corporate network. To add, access, and process data stored in a computer database, you need a database management system such as MySQL Server. Since computers are very good at handling large amounts of data, database management systems play a central role in computing, as standalone utilities, or as parts of other applications.

- **MySQL databases are relational.**

A relational database stores data in separate tables rather than putting all the data in one big storeroom. The database structures are organized into physical files optimized for speed. The logical model, with objects such as databases, tables, views, rows, and columns, offers a flexible programming environment.

- **MySQL software is Open Source.**

Open Source means that it is possible for anyone to use and modify the software. Anybody can download the MySQL software from the Internet and use it without paying anything.

- **The MySQL Database Server is very fast, reliable, scalable, and easy to use.**

MySQL Server was originally developed to handle large databases much faster than existing solutions and has been successfully used in highly demanding production environments for several years. Although under constant development, MySQL Server today offers a rich and useful set of functions. Its connectivity, speed, and security make MySQL Server highly suited for accessing databases on the Internet.

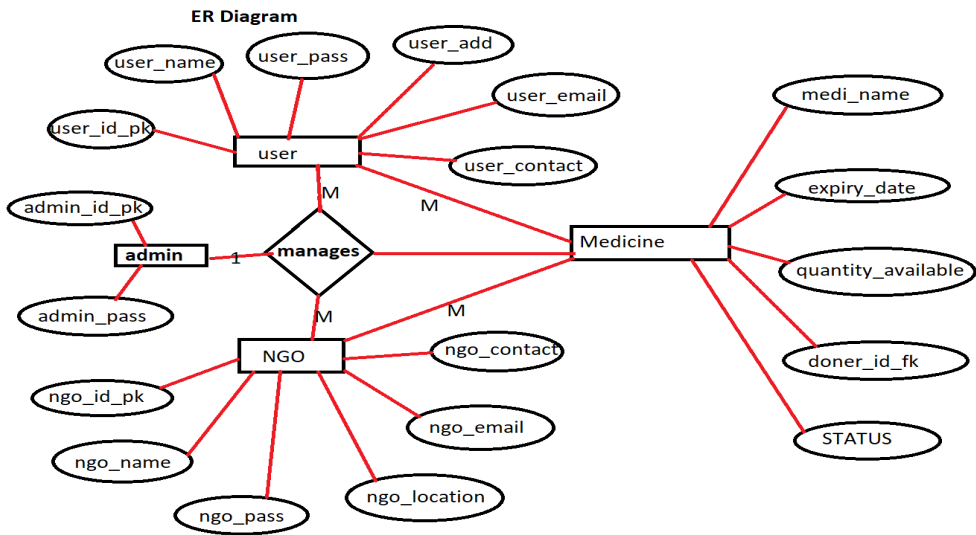
- **MySQL Server works in client/server or embedded systems.**

The MySQL Database Software is a client/server system that consists of a multithreaded SQL server that supports different back ends, several different client programs and libraries, administrative tools, and a wide range of application programming interfaces (APIs)

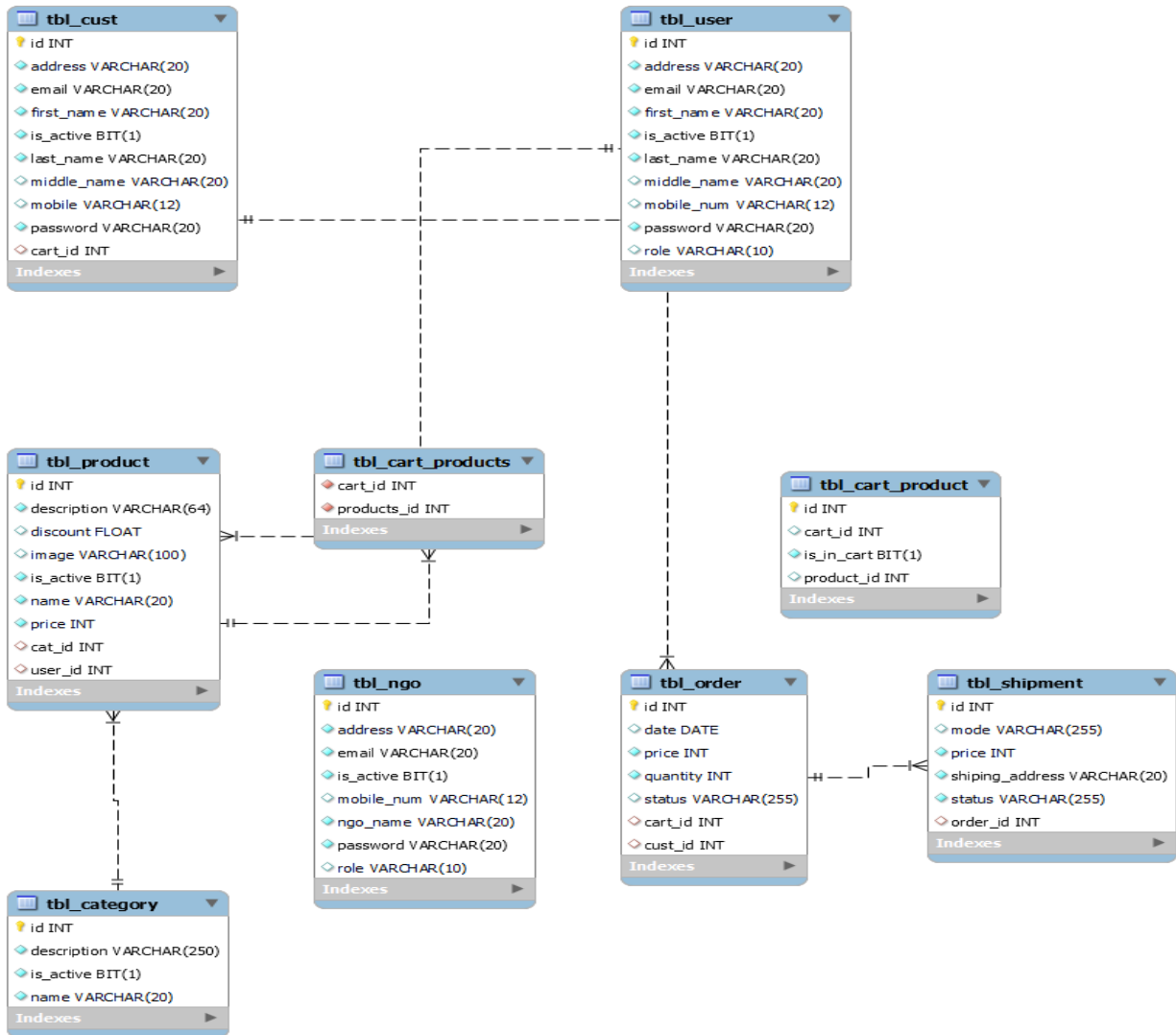
- **Hardware and Software Requirements (Minimum):**

Software:

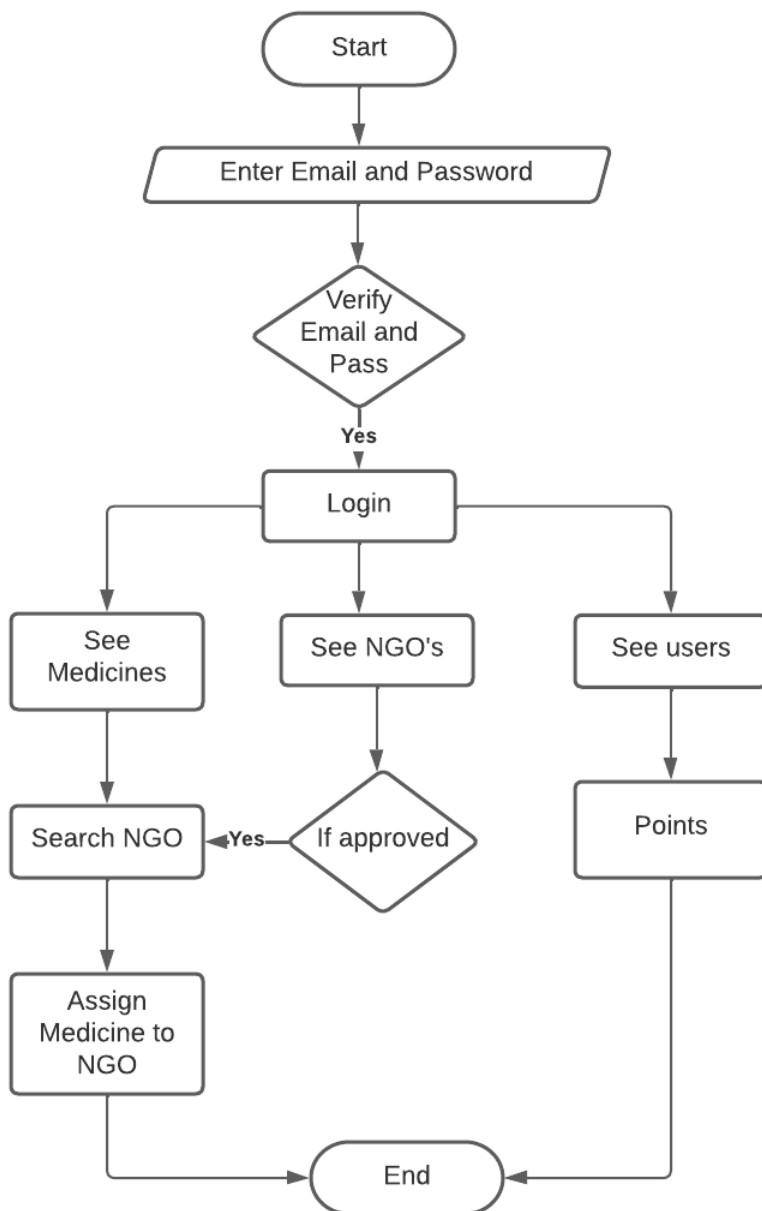
- Eclipse 4.7 Oxygen
- MySQL 5.7 with Workbench 8.0
- React
- **ER Diagram:**

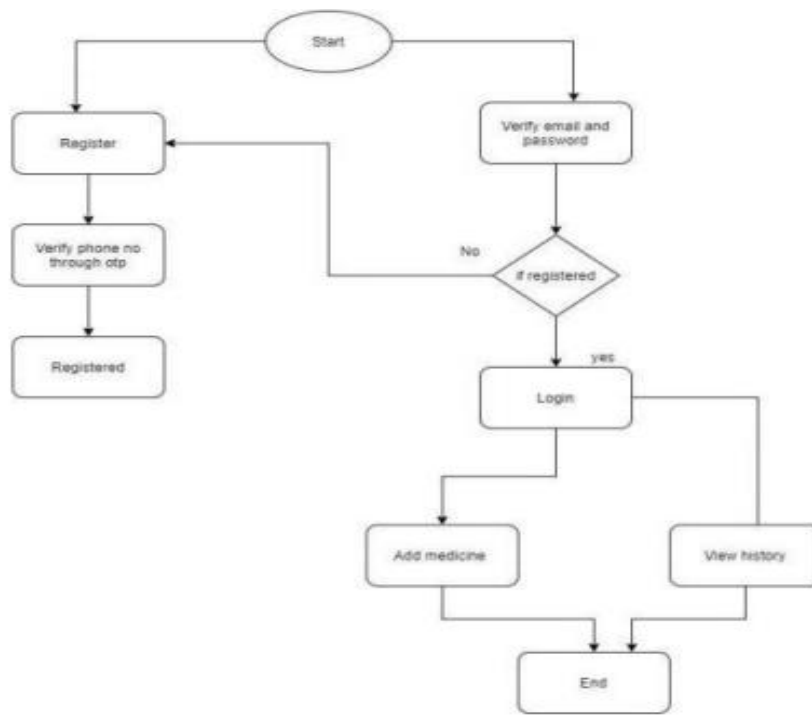


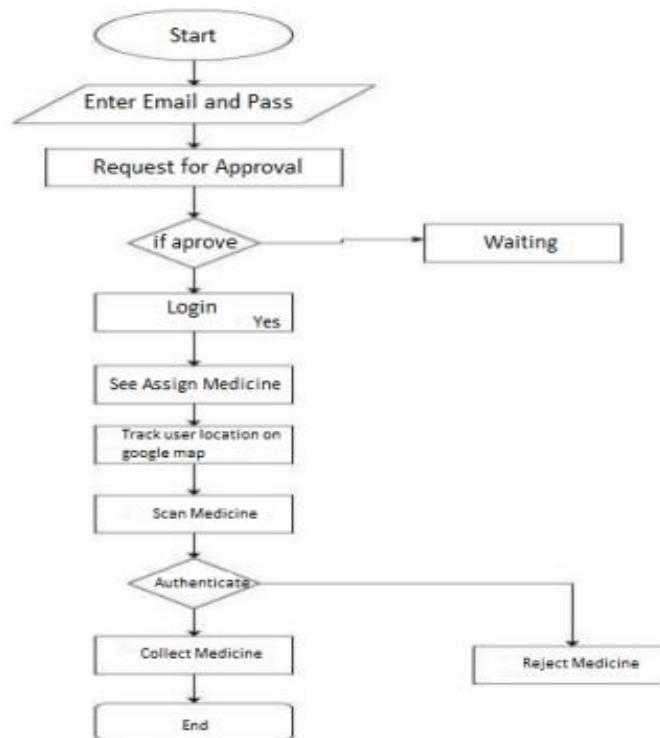
- **Table Structures:**



Flow Chart:







- **End to End Flow of Application:**

- A. Users-**

- I. Admin:-**

- 1. The Admin is the super user of this application.**
 - 2. Admin has all the information about all the users and Available Medicines.**
 - 3. Admin has monthly report of medicines which has been donated and received.**
 - 4. Admin can block the spam users.**

II. NGO:-

- 1. NGO can register and login using credentials.**
- 2. NGO will verify the donation request (eg. exp.date).**
- 3. NGO will check and verify the donee request.**

III. Users:-

- 1. The user who wants to donate the medicine will first have to register themselves on the portal.**
- 2. After successful registration user can log in to the portal**
- 3. The user can search for his required medicines without registration.**

- Future Scope of Project**

- A. This project in the future has the ability to become a full fledge application wherein all the facilities will be provided on this portal.
- B. In future, it can be expanded to provide treatment to user via video consultancy with doctors providing prescription upload feature.
- C. It can be very beneficial to user because as the current Pandemic situation it is very important to follow Governments rule and regulations.
- D. For better suggestions, we are merging all the medication facility like consultation, medicine donation, blood donation, etc. like facilities are part of the portal in future.

Thank You!