**Architecture/Design:**

**UI Design:**

We have the following UIs in our project.

* **Login Page:** This is an xml layout with two text fields and two buttons. User Details will be authenticated by using the text from those text fields. If the user is new he has to register, so by clicking register button he will be redirected to registration page. If the user is successfully logged in, he will be redirected to home page.
* **Registration Page:** This is an xml layout with 6 text fields, 1 radio button and register button. User has to give name, mobile number, username, zip code and more importantly blood group name. If all the required fields are validated once user clicks register button. If user has account already, an error message will be thrown with message as “account already exists, please got o login page”. If he is a new user, all the details will be stored in our database and he will be redirected to Home Page.
* **Home page:** This is the main page where user will be redirected after successful login. In this page, user can search donors who are available in the location he provided. He can view the contact details of the donors. We will extend this functionality to google maps where all the donors are seen in the maps. User can also update profile information. There is a logout button where user can close the session.

**Database:**

We are planning to use MySQL database or SQLite database to store user details. If we use social logins, we get required details from the corresponding apis.

We have only one table named “User”.

The tale will consists of following columns.

* First Name : Char
* Last Name : Char
* Mobile : Number
* User Name : Char
* Password : Char
* Zip code : Char
* Blood group : Char
* Created at: DateTime
* Id : Number
* Updated at : DateTime

## Four Different Increments:

* 1. **Increment 1-- Requirement Gathering and Designing the application**

1. Research on importance of blood donation management, requirements for the devlopement.
2. Setup android studio, zenhub and Github for every team member.
3. Design class diagrams.
4. Design sequence diagrams.
5. Design state diagrams.
6. Design WireFrames.
7. Design basic UI layouts (Login, Registration, Home)

## Increment 2—Coding/Testing

1. Implement Login/logout /Registration/ Registration validation and functionality.
2. Implement home page.
3. Setup local databases.
4. Test Login/logout UI/Registration/Registration validation.
5. Test sample user data.

## Increment 3 – Coding/Testing

1. Implement search functionality
2. Implement map functionality
3. Test search functionality
4. Test map UI and functionality
5. Extend to profile updation stage.

## Increment 4 -- Refine GUI

1. Refine GUI for Login/logout UI/Registration/Registration validation.
2. Refine GUI for Home
3. Refine GUI for Profile
4. Refine GUI for Map.

## Project Timelines, Members, Task Responsibility

Member and Responsibilities

|  |  |
| --- | --- |
| **Artifacts** | **Members : Santhosh, Anudeep, Prasanna, FathimaJ** |
| Research | All |
| Project Plan | Santhosh mohan |
| UML Diagrams | Prasanna, Anudeep |
| Modeling Database | Anudeep, Prasanna |
| Initial Mockup | FathimaJ |
| Reports | All |
| Development | Santhosh Mohan, Prasanna |
| Testing | Anudeep, FathimaJ |
| Maintenance | Santhosh Mohan |

Project Timelines:

|  |  |
| --- | --- |
| **Increments** | **Tasks** |
| Increment 1 | Initial setup of environments, uml diagrams and code (Login UI, Registration UI, Home UI) |
| Increment 2 | Code (Login, Register, Home Java code functionalities basic) |
| Increment 3 | Code + Test (Profile functionality, map functionality, testing) and use case execution |
| Increment 4 | Deployment to play store, final report. |