

## Patient Monitoring System

### Project Increment 2

#### Team # 12

##### Team Members:

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#### "Project Goal and Objectives (REVISED)"

We intend to design a system for the patients having some chronic disease or any minor health condition. It can help the doctor by monitoring his patients online through the application. Patient can tell their symptoms to the doctor and can also give feedback regarding some medication given by the doctor. In this way the doctor can further recommend some medicines or can cut down some based on the results. The benefit of this kind of system is that it is not necessary for the doctor to meet the patient in person to prescribe him medication. If the condition of the patient is not severe then the doctor can prescribe him online.

It will be a mobile application which can be accessed by the doctor as well as patients once they are registered under that doctor. Both doctor and patient will have access to their own accounts. They can talk to the doctor about their condition and can take advice from the doctor. They can also send their pictures showing improvement in their condition to the doctor. The doctor can also prescribe some test to the patient and the patient can take that test from some lab. The patient can share their reports with the doctor. The doctor can view patient's details as well as can check his history. He can also add prescriptions and certain medical advice for the patient. This is an efficient way of communication and doctor doesn't need to be present in person. The database for this application stores the record for all the patients in the hospital. The doctor may view the data anytime whenever needed.

#### "Significance"

- The web application can be used anywhere by the doctor and the patient.
- Paper based work is reduced.
- Doctor can access any patient report whenever he wants.
- Less human intervention.
- Patient data can be maintained easily.
- Flexible and secured system.
- Data of one patient can be transferred easily from one doctor to another.

## "Project Plan (USING ZENHUB TOOL)"

### Phase2

#### Issues

The screenshot shows the GitHub Issues page for the repository "Harmeet0005 / ASE-Project". The URL is <https://github.com/Harmeet0005/ASE-Project/issues>. The page displays three open issues:

- Database Collection and Arrangement (enhancement) #11
- Pop up frames (enhancement) #10
- Linking of all the XML files (enhancement) #9

Each issue includes a description, the number of comments, and its status (In Progress). There are filters at the top for "Code", "Issues", "Pull requests", "Boards", "Reports", "Projects", and "Wiki". A "New issue" button is located in the top right corner.

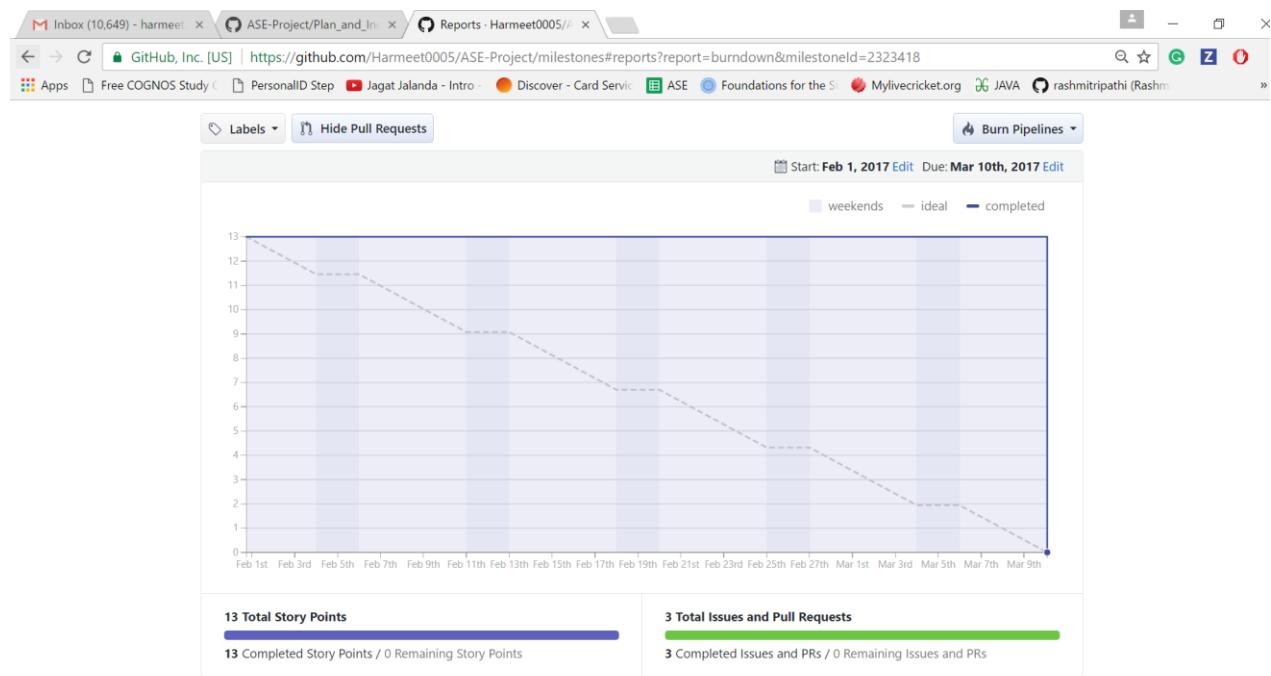
#### Closed Issues on Boards

The screenshot shows the GitHub Boards page for the repository "Harmeet0005 / ASE-Project". The URL is <https://github.com/Harmeet0005/ASE-Project/issues#boards?repos=81777965>. The page displays a board with four columns: In Progress, Review/QA, Done, and Closed. The "Closed" column contains the following issues:

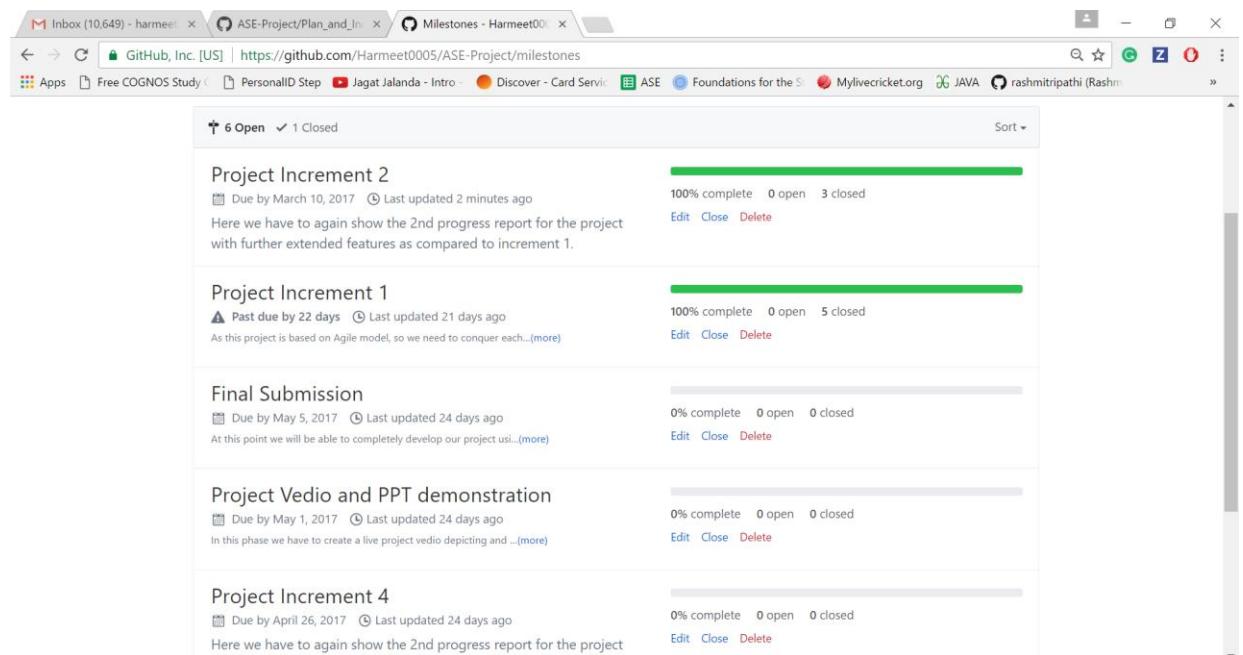
- ASE-Project #9 Linking of all the XML files (enhancement)
- ASE-Project #11 Database Collection and Arrangement (enhancement)
- ASE-Project #10 Pop up frames (enhancement)
- ASE-Project #4 Some G. Comment Requirements (enhancement)

The "Done" column has 0 items. The "Review/QA" and "In Progress" columns also have 0 items. There are buttons for "View", "Repos (1/1)", "Labels", "Milestones", "Assignees", and "Epics". A search bar and a "New Issue" button are located at the top right.

## Burndown Chart



## Milestone Completion Increment 2



**"Second Increment Report"**

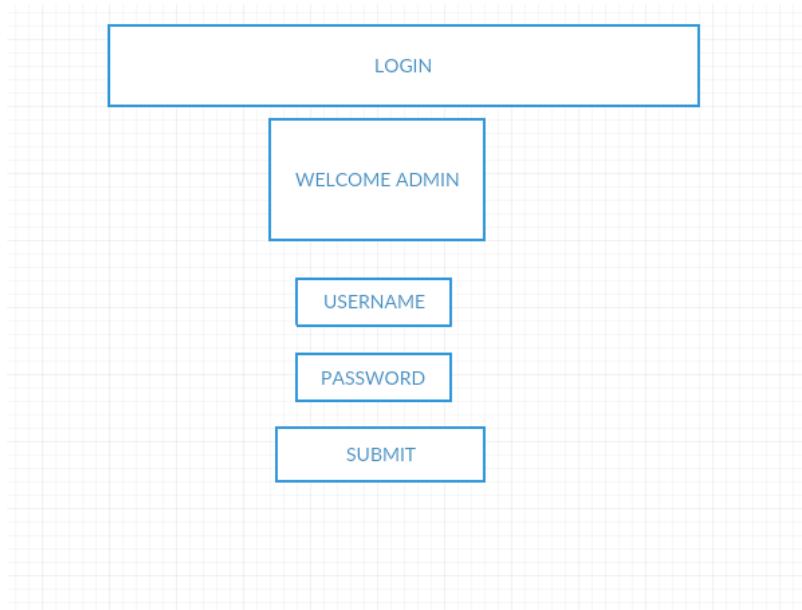
Improved UI and additional features

**Modules:**

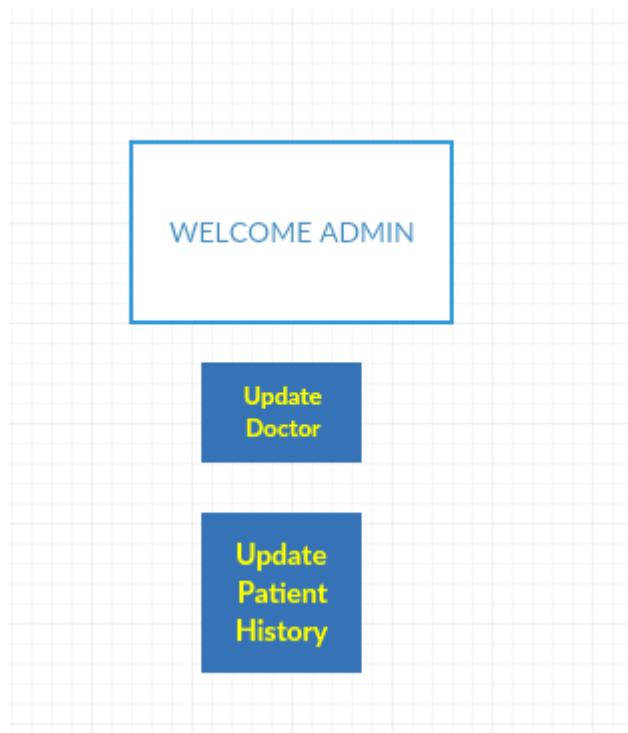
- **Doctor registration:** Doctor can enter his details and make an account on the application.
- **Patient registration:** Patient can enter his details and make an account on the application.
- **Doctor Dashboard:** The doctor can log in to his account and manage his appointments and chats.
  - Personal Information
  - Reserve Slot for Appointment
  - Add Specialization
  - Patient Report
  - Give Feedback
- **Patient Dashboard:** The patient can log in to his account and schedule appointments or chat with his doctor about prescriptions and medicines.
  - Personal Information
  - Book Slot for Appointment
  - View Report
  - Give Feedback

**"Detailed Design of Features (Using Tools)"**

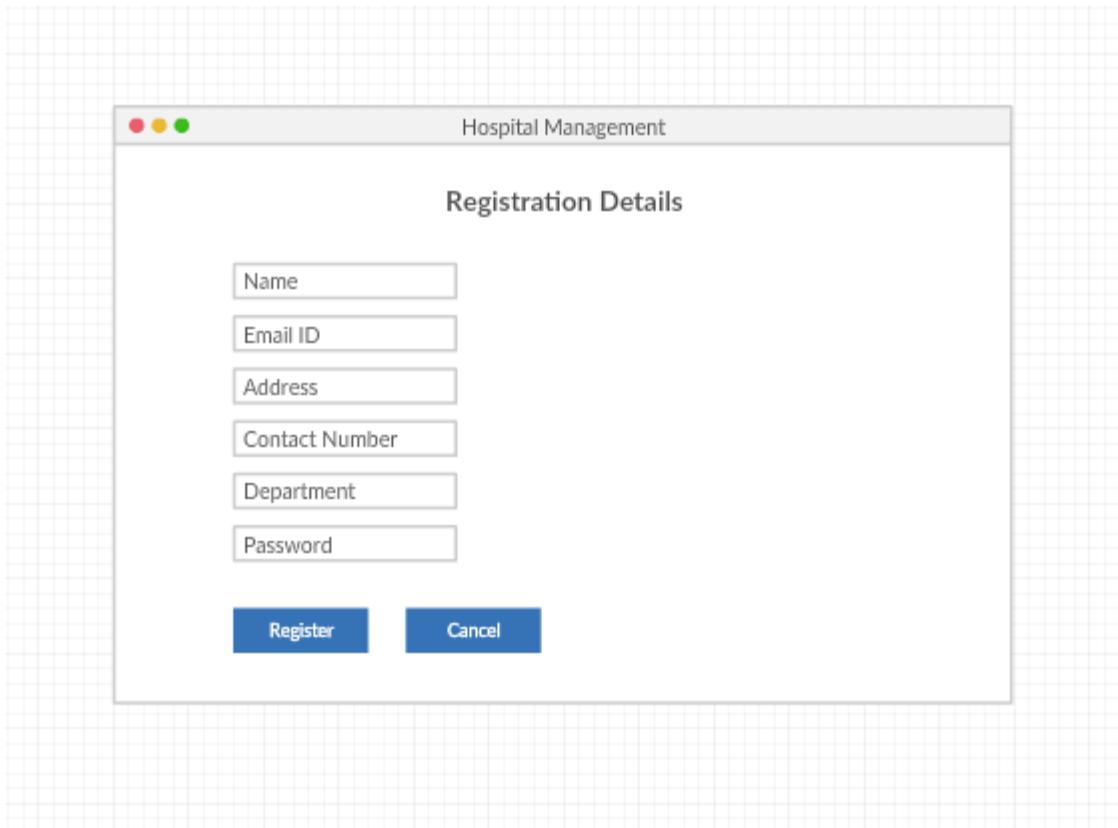
- Using wireframes



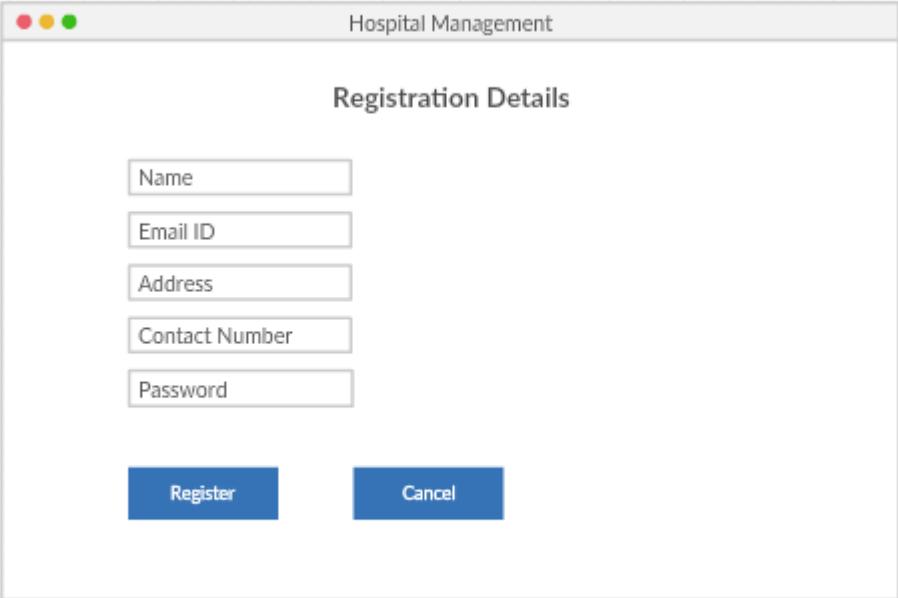
**Admin Page**



**Admin Dashboard**



**Doctor Registration**



Hospital Management

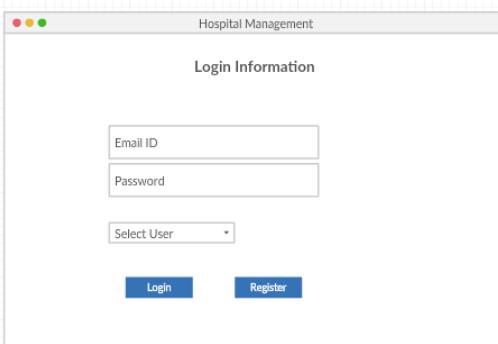
### Registration Details

Name  
Email ID  
Address  
Contact Number  
Password

Register      Cancel

This window is titled "Registration Details" and is part of the "Hospital Management" application. It contains five input fields for user registration: Name, Email ID, Address, Contact Number, and Password. At the bottom are two buttons: "Register" and "Cancel".

### Patient Registration



Hospital Management

### Login Information

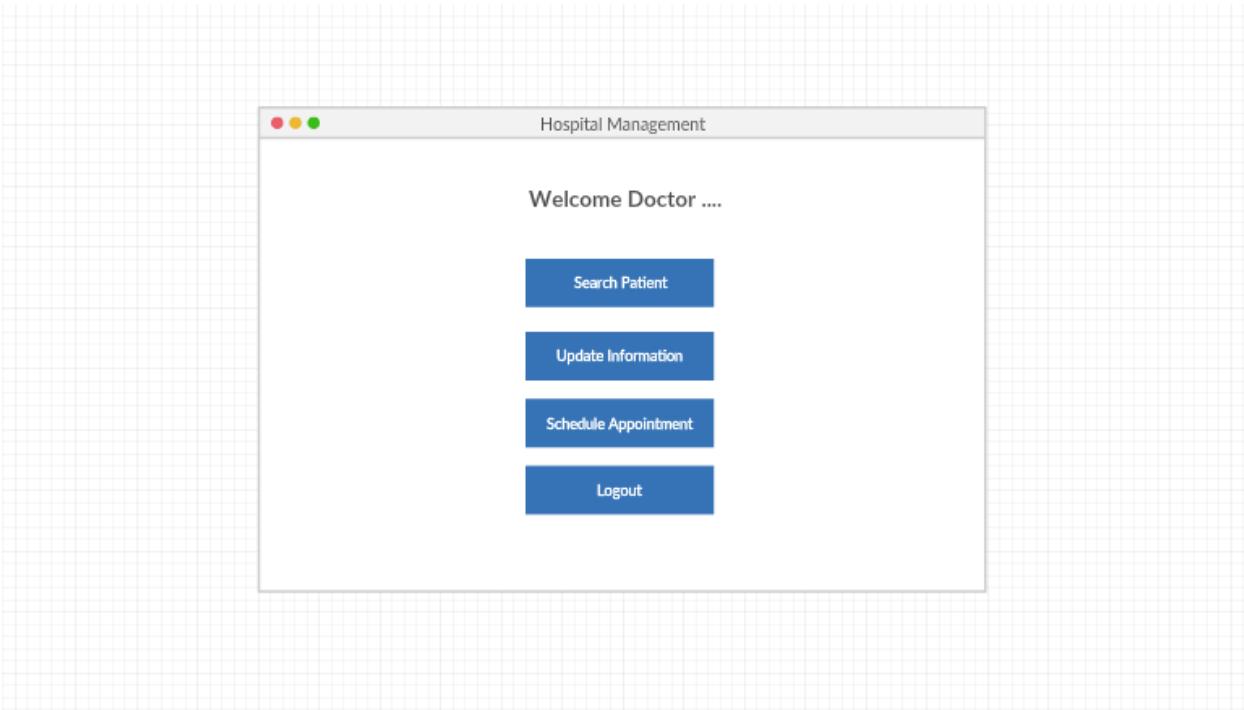
Email ID  
Password

Select User

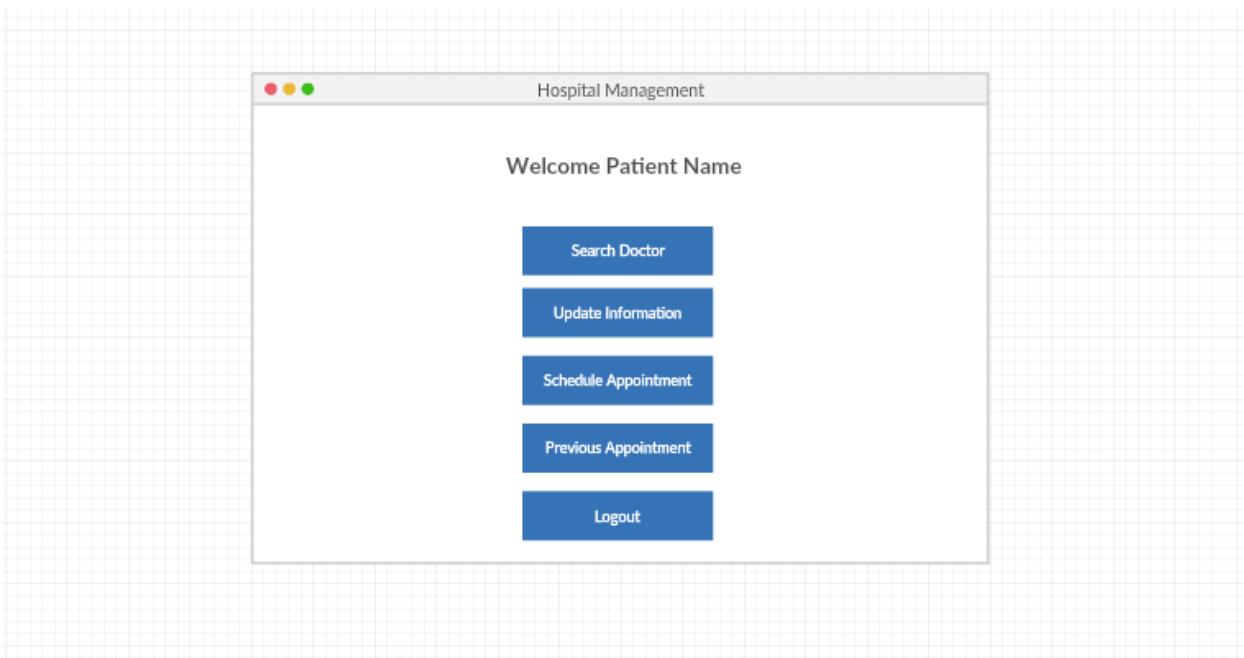
Login      Register

This window is titled "Login Information" and is part of the "Hospital Management" application. It contains three input fields: Email ID, Password, and a dropdown menu labeled "Select User". At the bottom are two buttons: "Login" and "Register".

### Login Page

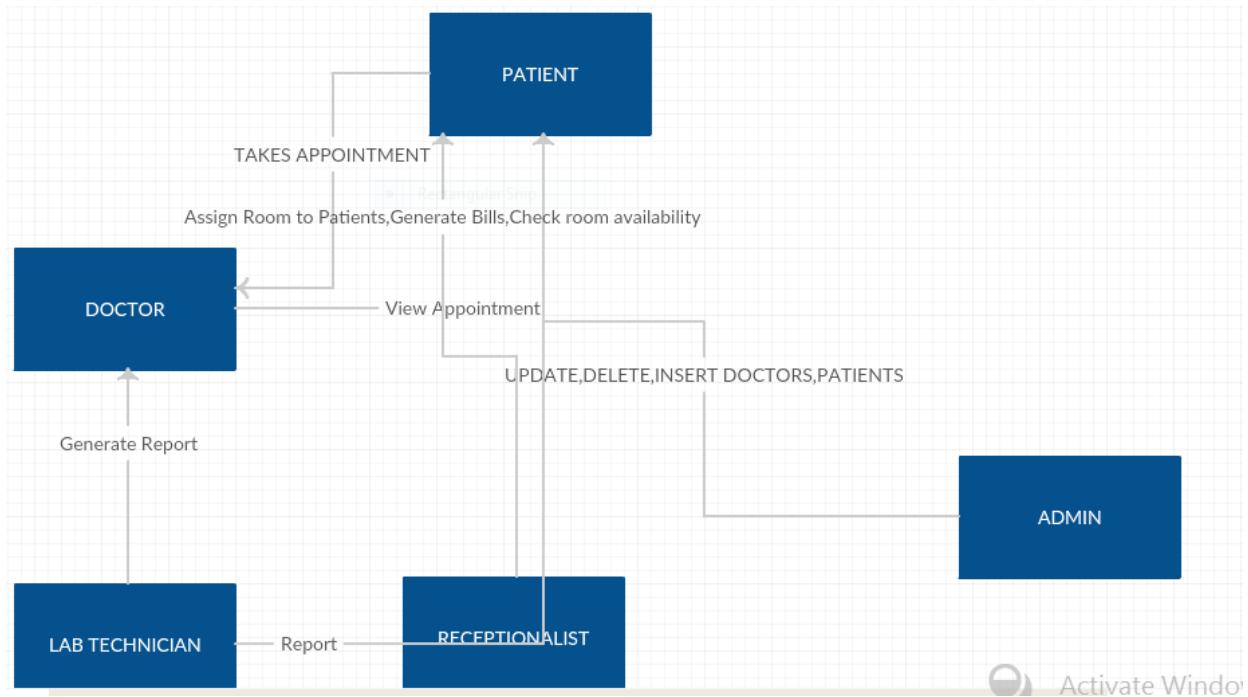


**Doctor Dashboard**

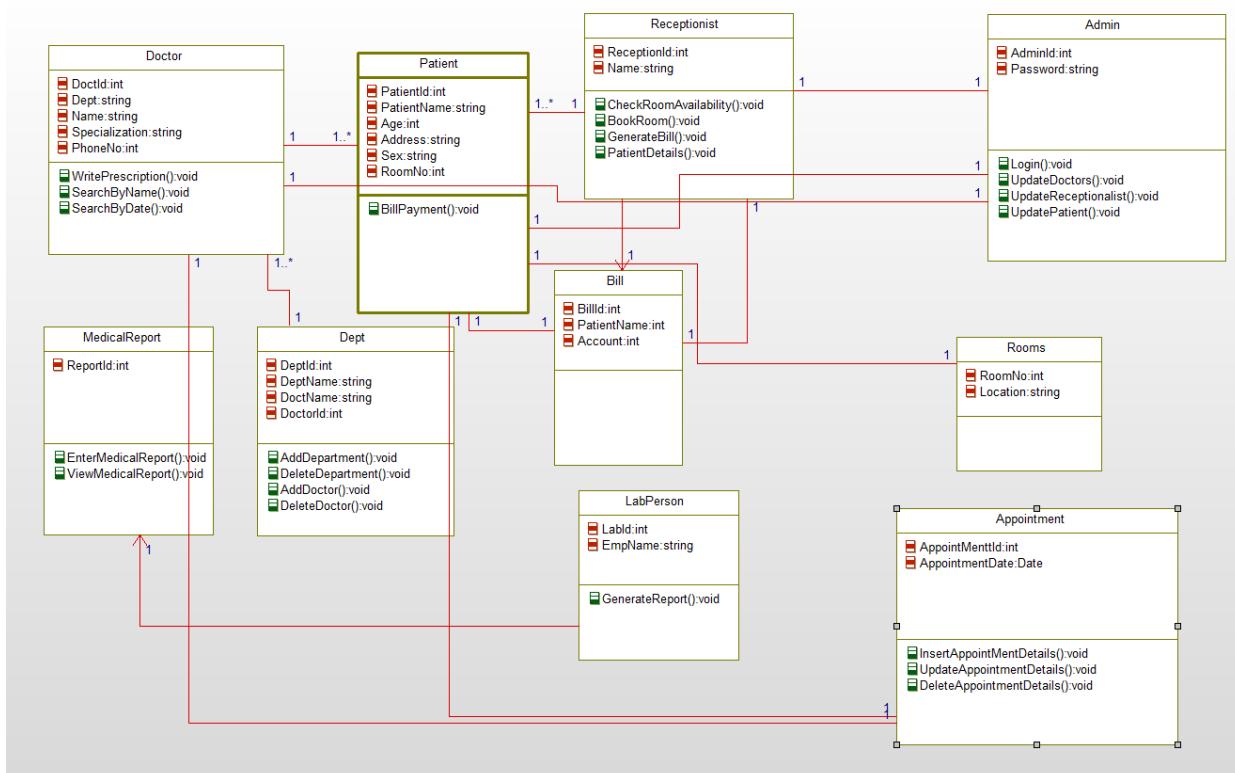


**Patient Dashboard**

### ● Architecture Diagram



### ● Class diagram

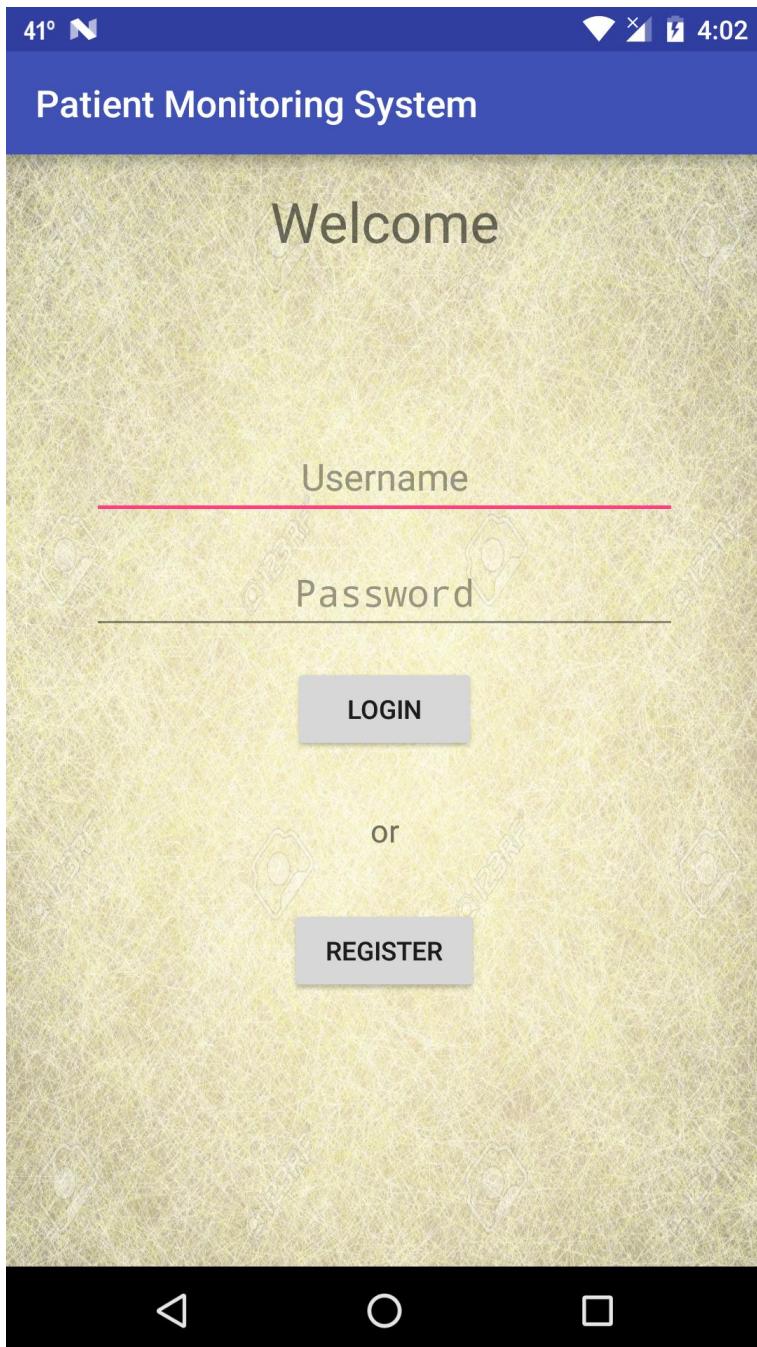


**“Implementation and Deployment”**

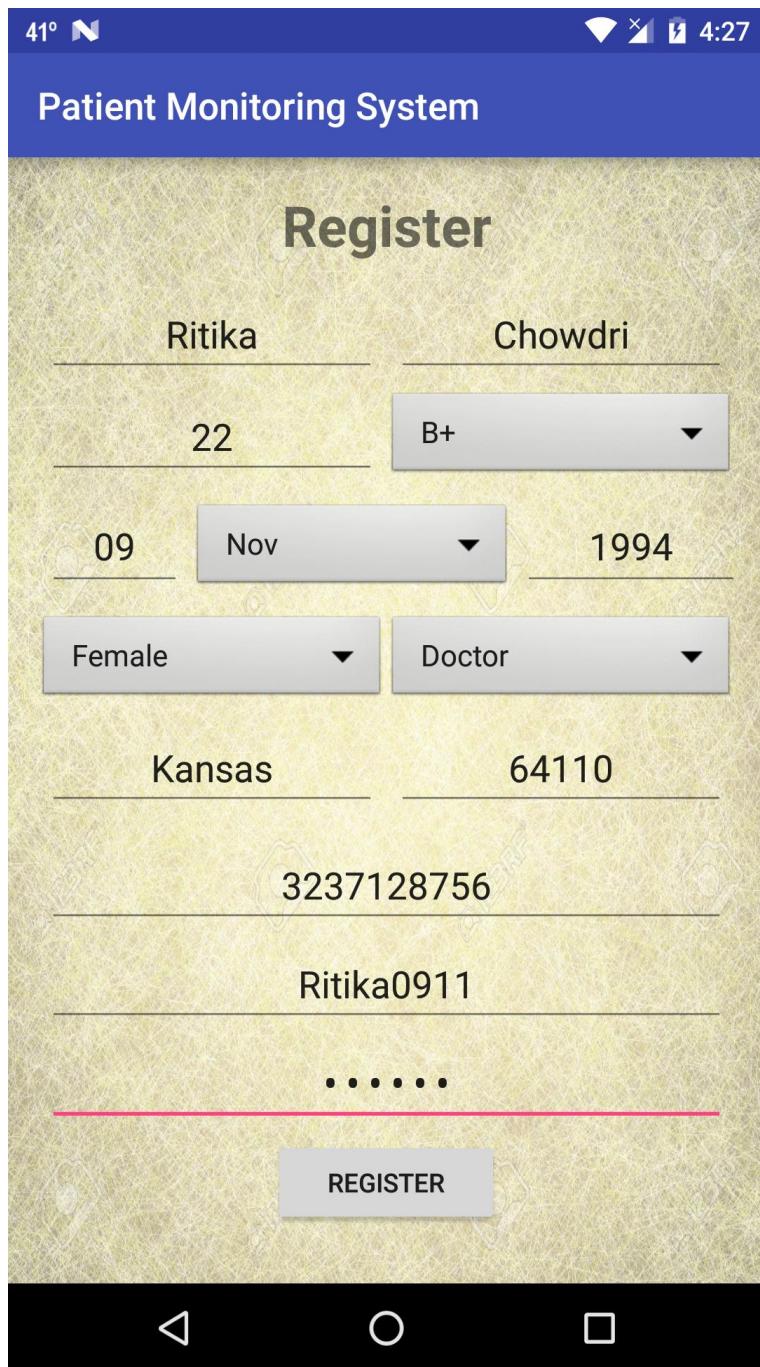
You can find the source code of the Patient Monitoring System on the following link :

<https://github.com/Harmeet0005/ASE-Project/tree/master/Source>

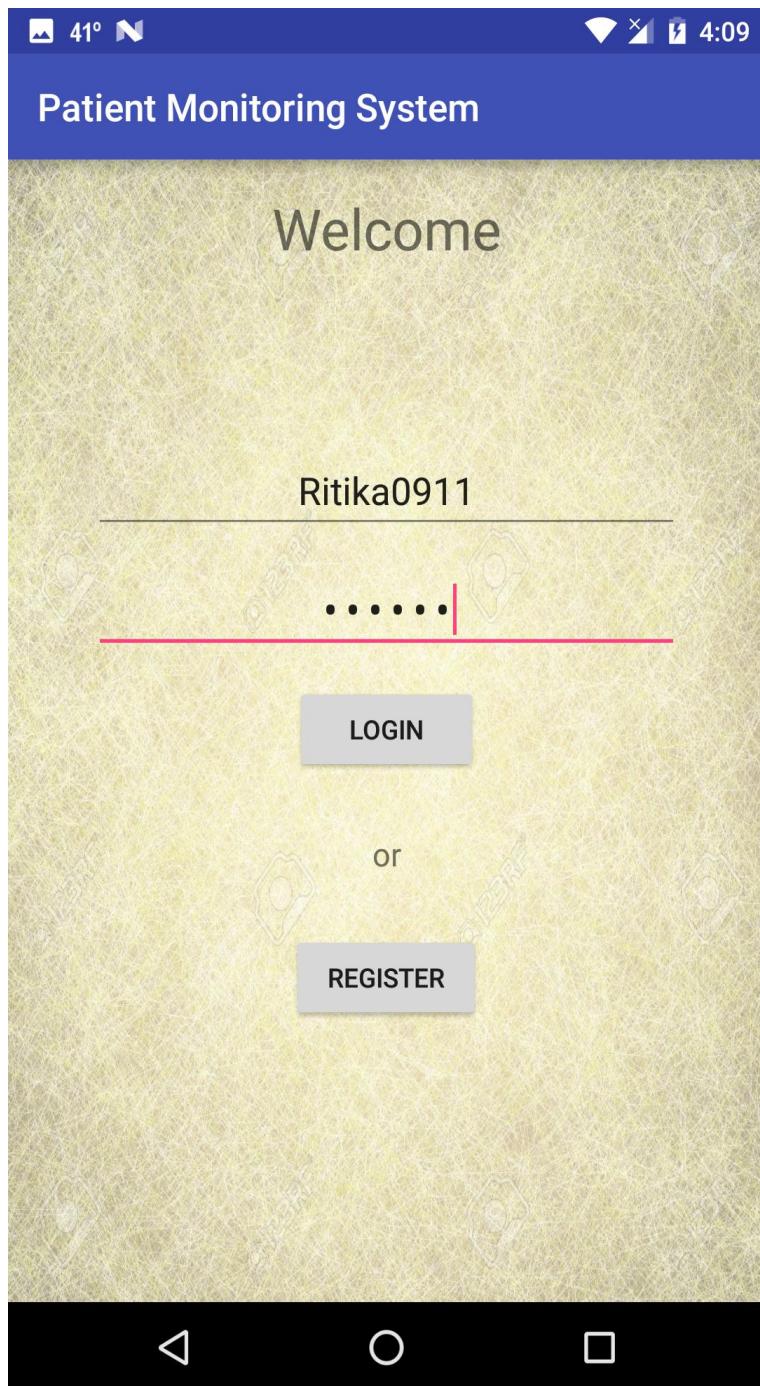
Screenshots after deployment are:



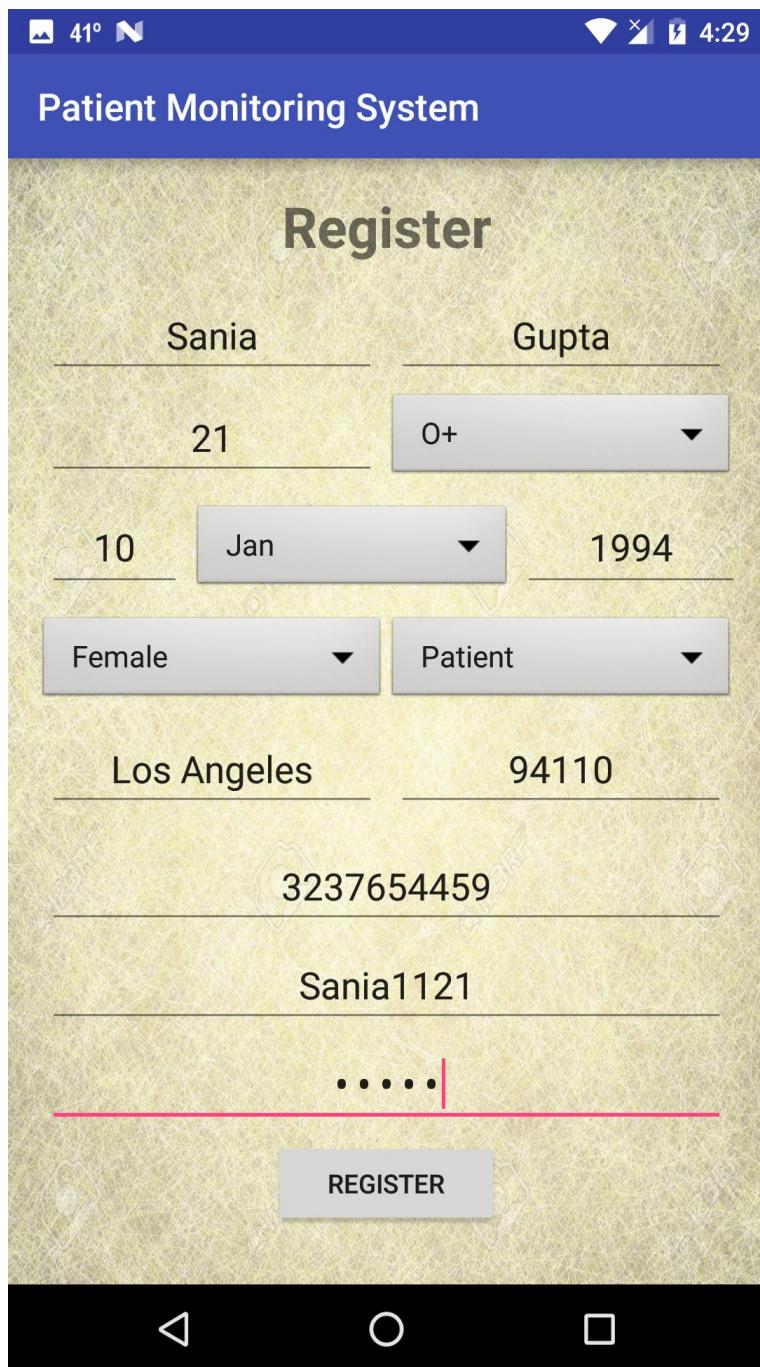
“Home Page”



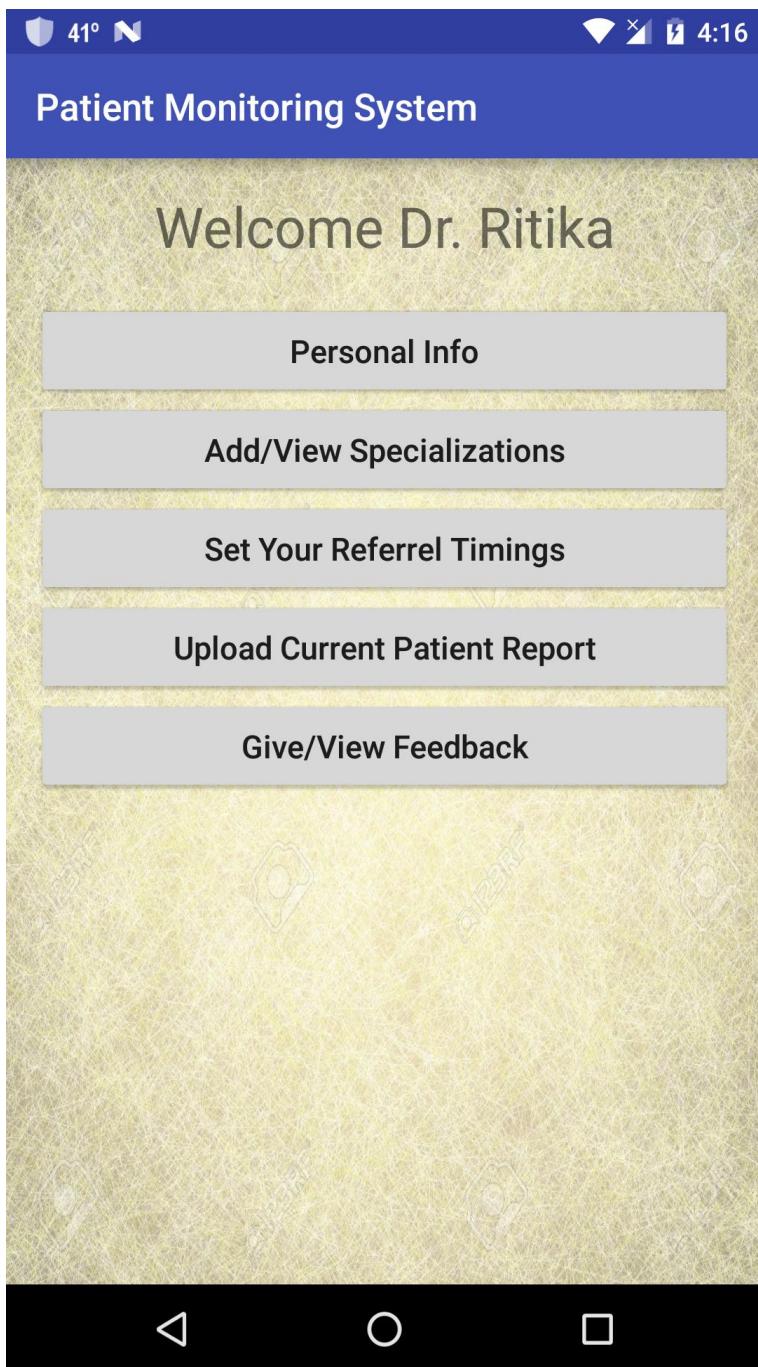
"Doctor Registration"



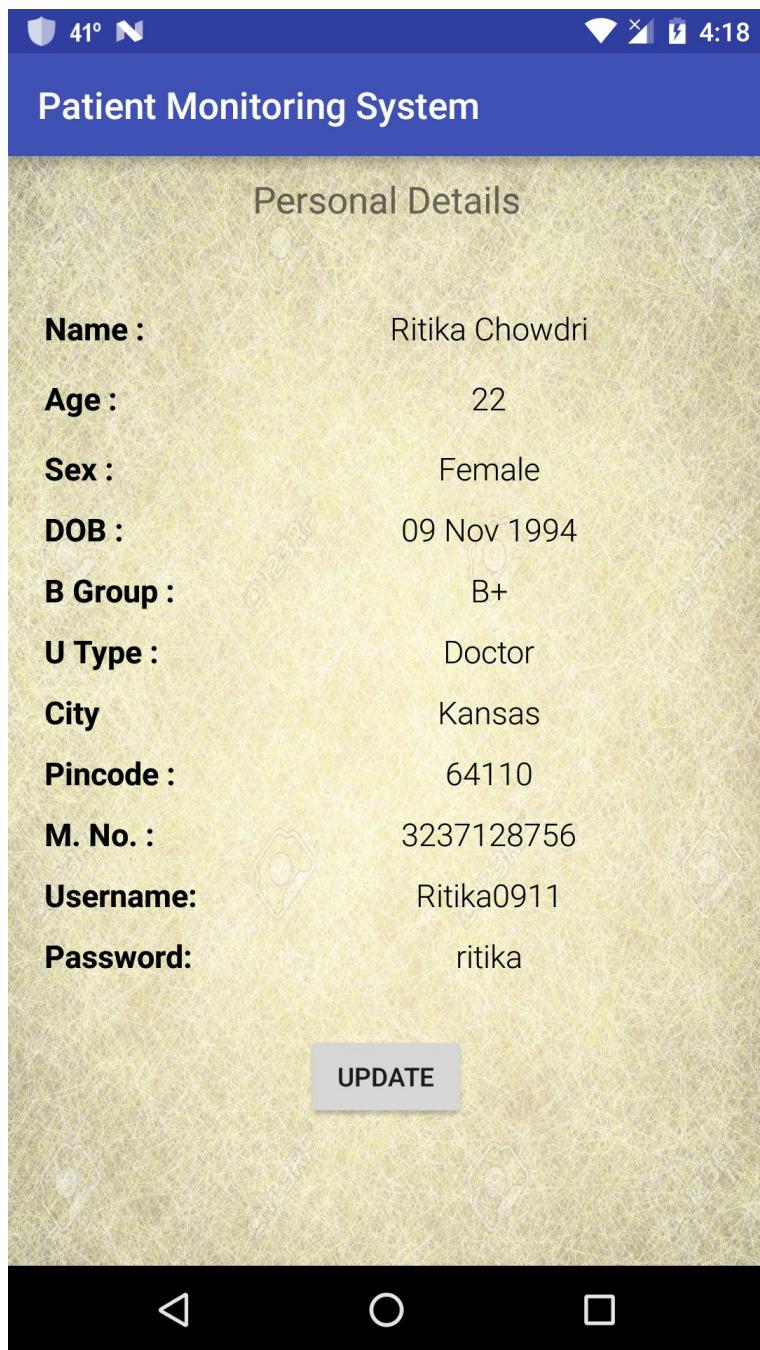
"Doctor Login"



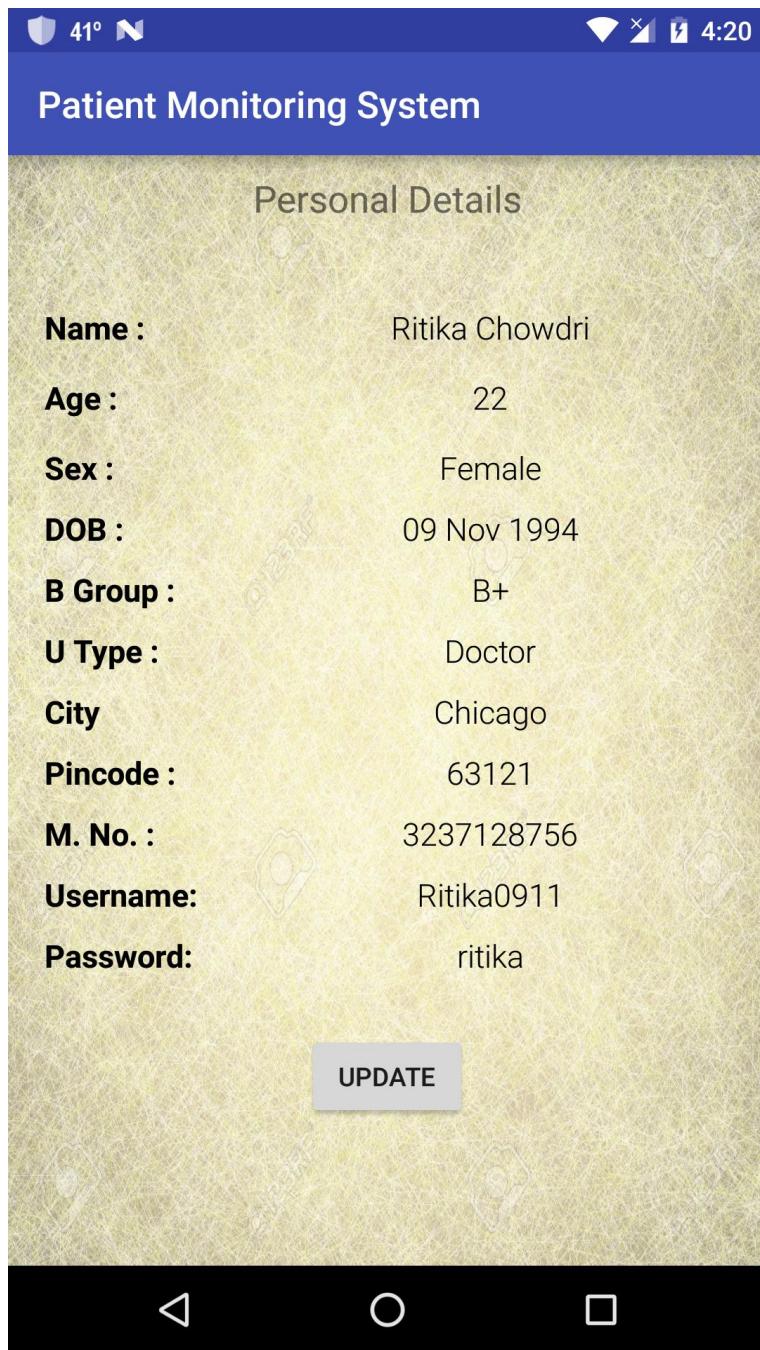
"Patient Registration"



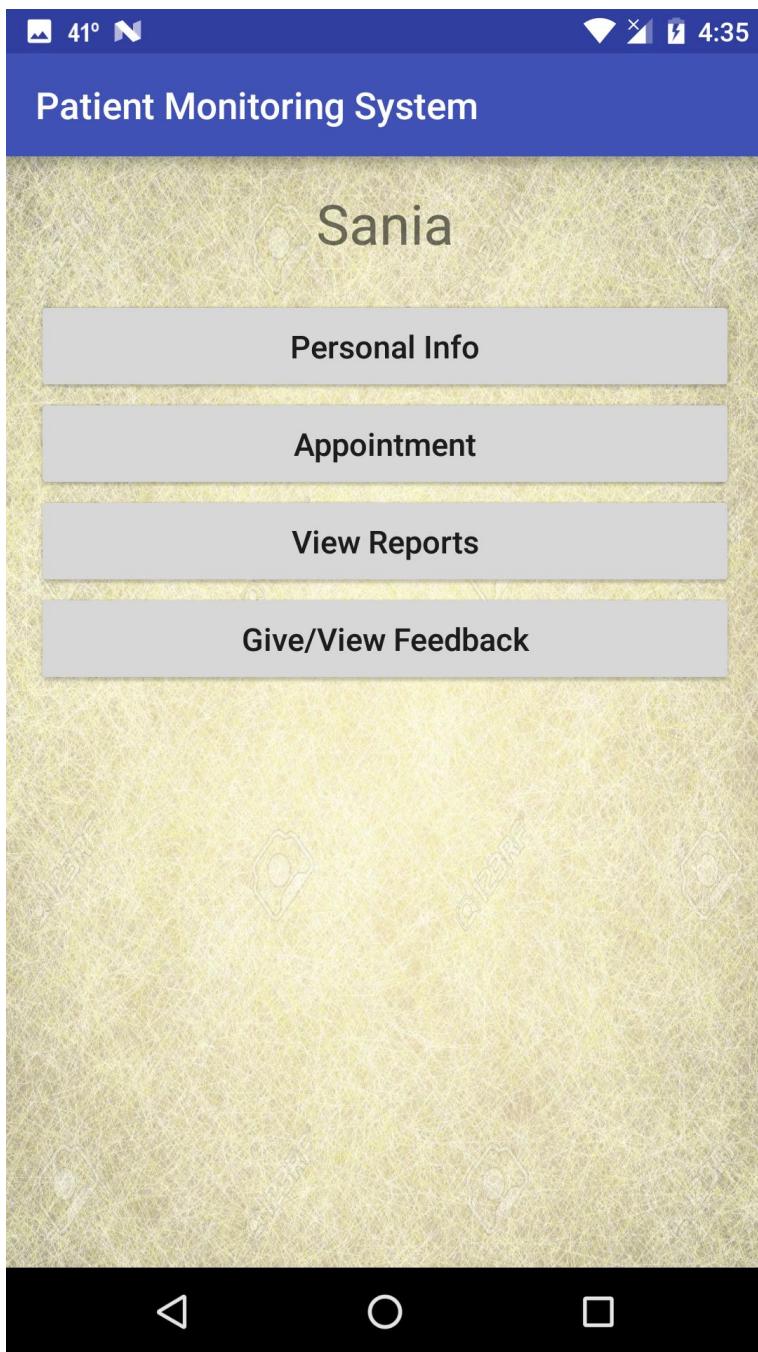
"Doctor Dashboard"



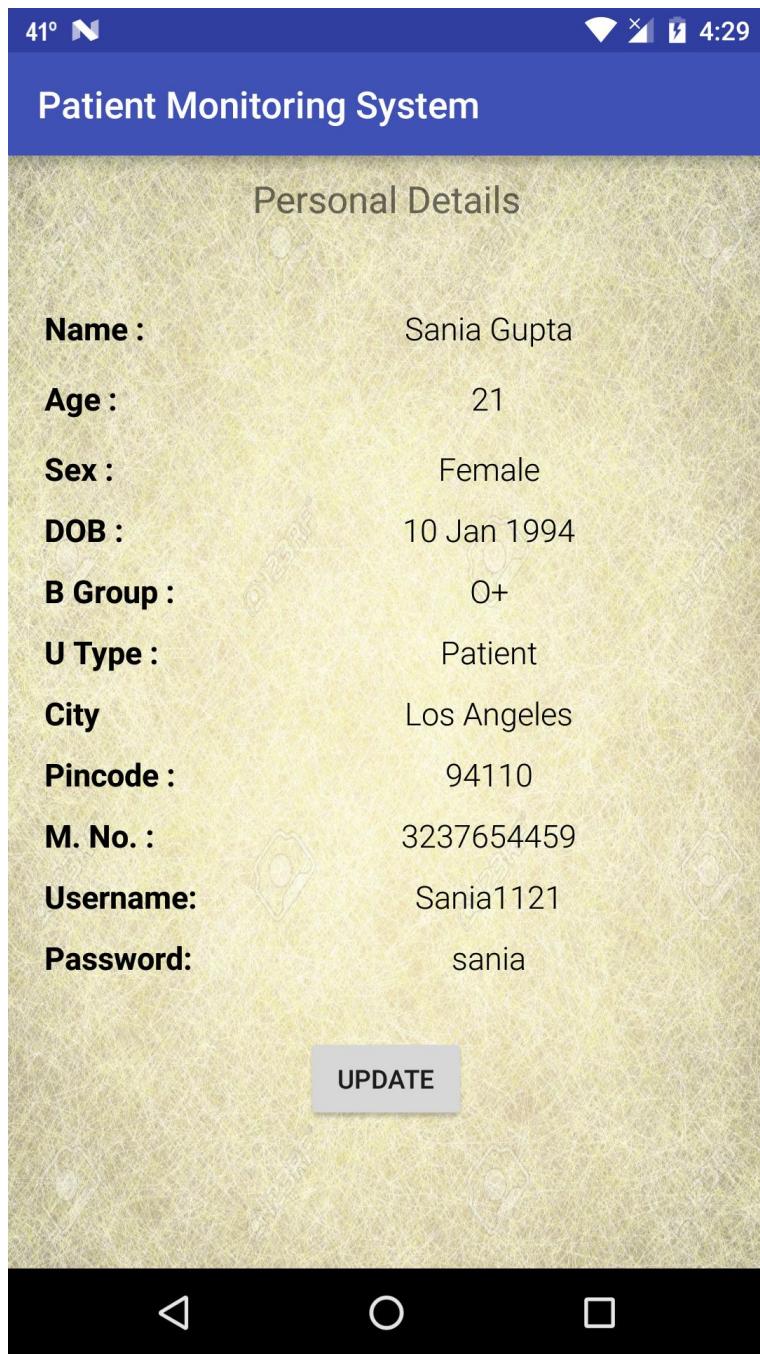
"Display Personal Information"

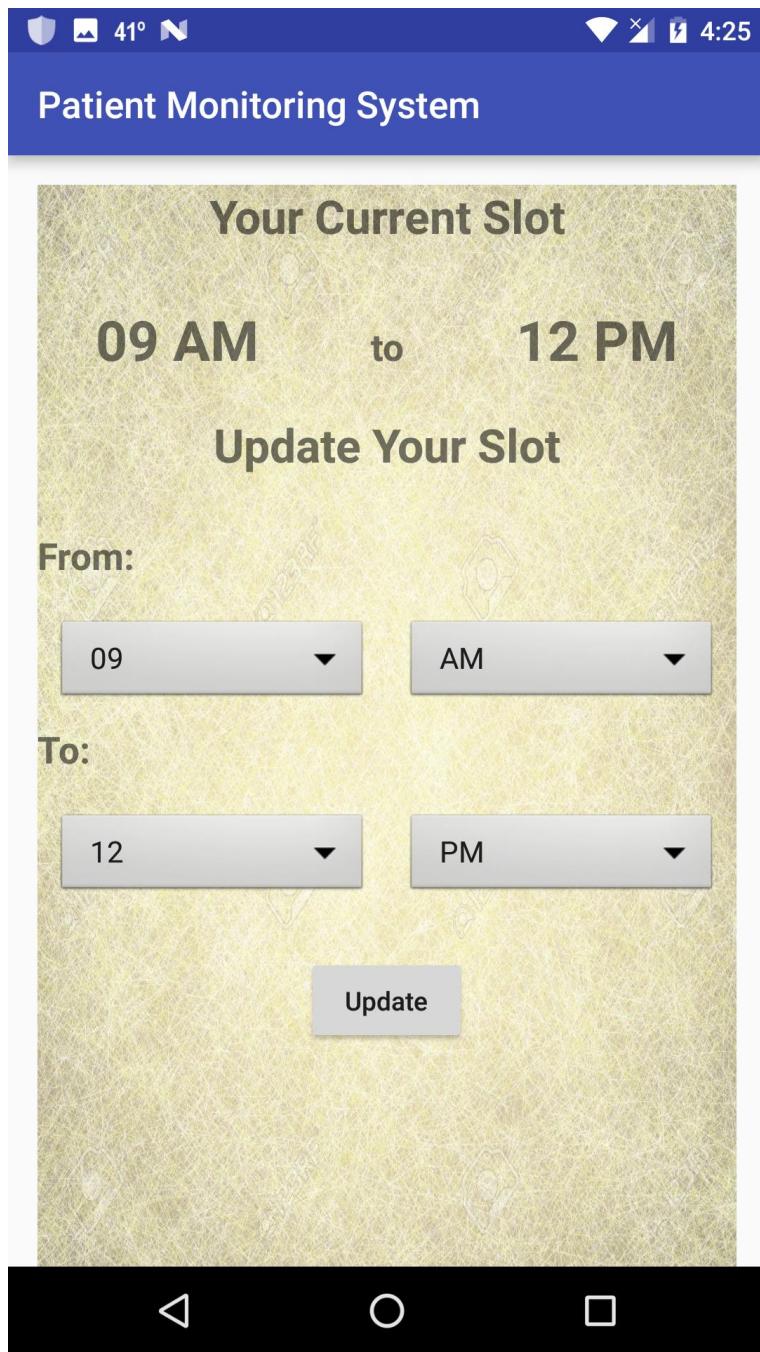


"Update Personal Information"

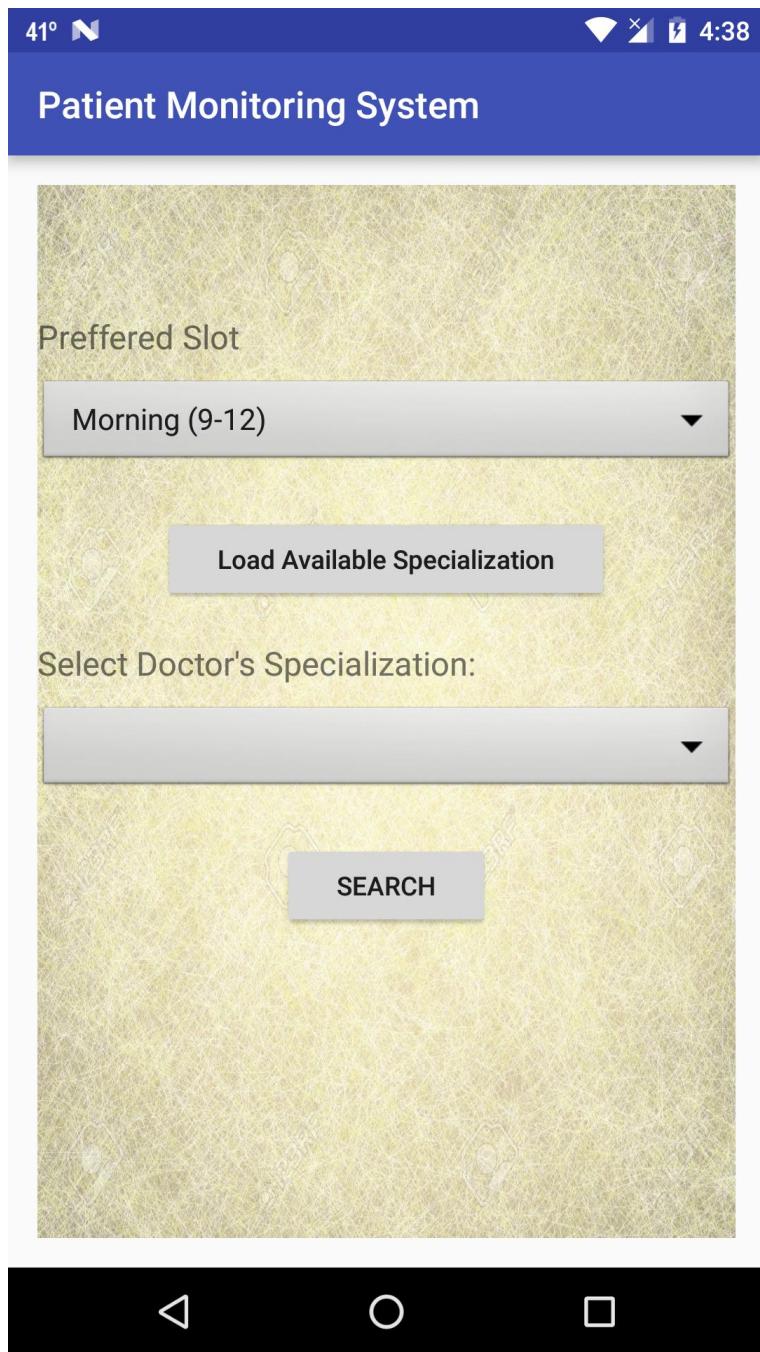


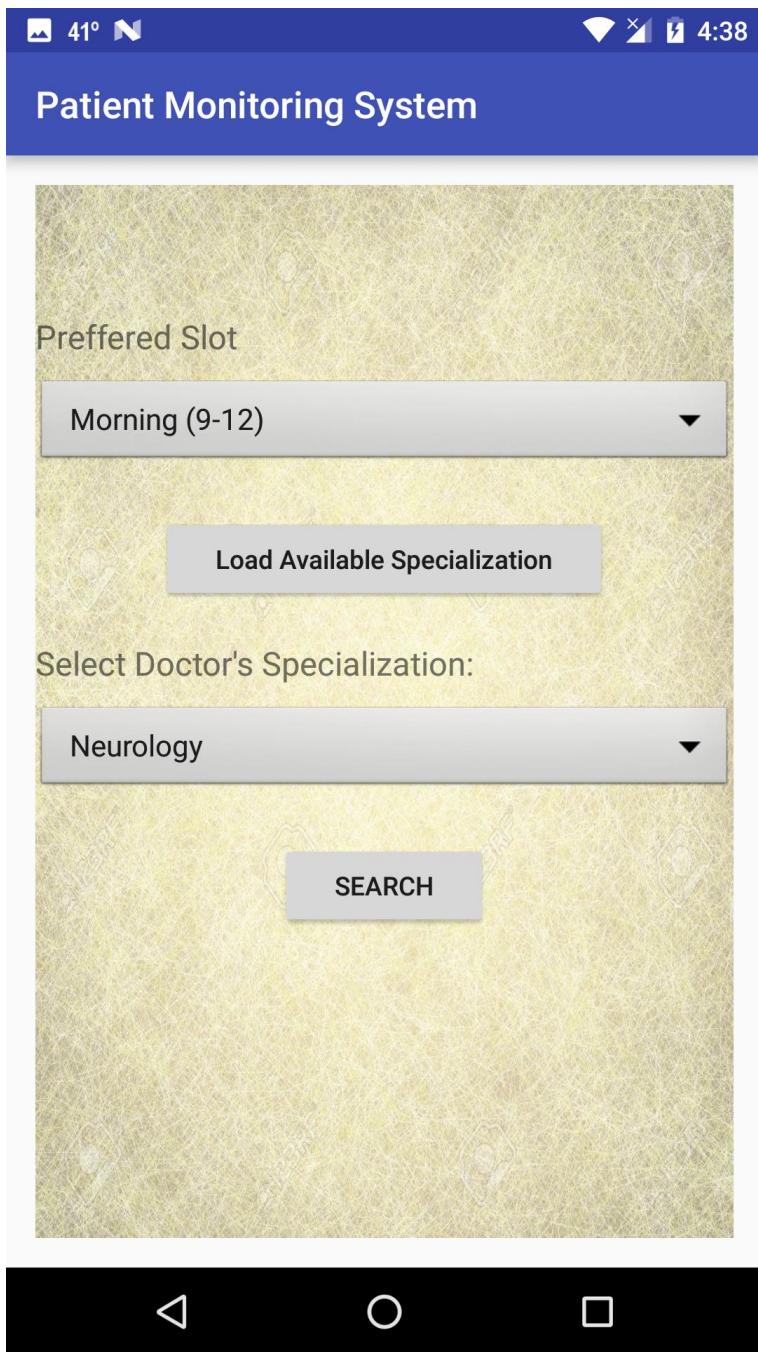
"Patient Dashboard"





"Doctor Appointment Slot"





"Doctor Availability"

### Unit Testing

The following are the unit test cases and their results:

S.No	Test case	Description/Process	Expected result	Actual result	Pass/Fail
1	Registration	Doctor/Patient has to do registration to create their account	"Registration has to be successful"	"Registration is successful"	Pass
2	Registration	If the email ID is invalid	Error message stating invalid email ID	Error message stated invalid email ID	Pass
3	Registration	Password should also be correct length	Error message showing password length criteria is not met	Error message showed password length criteria is not met	Pass
4	Log in	User has to login with their valid credentials	Login has to be successful	Login is successful	Pass
5	Log in	User has logged in with invalid credentials	Error message stating invalid credentials	Error message shown stating invalid credentials	Pass

### Bibliography

- <http://ieeexplore.ieee.org/xpl/articleDetails.jsp?arnumber=6139641&newsearch=true&queryText=android%20patient>
- <http://ieeexplore.ieee.org/xpl/articleDetails.jsp?arnumber=6291373&newsearch=true&queryText=android%20patient>
- <http://nevonprojects.com/android-patient-tracker/>