

Patient Monitoring System

Project Increment 3

Team # 12

Team Members:

Harmeet Singh

Rajarshi Tarafdar

Ritika Chowdri

Sovan Ghosh

"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)"

Phase 3

Issues

Project Increment 3

[Edit milestone](#) [New issue](#)

⚠ Past due by 3 days 0% complete

Here we have to again show the 2nd progress report for the project with further extended features as compared to increment 2.

III See this milestone on the board

① 2 Open ✓ 0 Closed
≡ ① MongoDB database enhancement #13 opened 2 minutes ago by Harmeet0005 New Issues
≡ ① Sliding sidebar Icon View enhancement 5 #12 opened 10 minutes ago by Harmeet0005 New Issues

Tip! You can use `shift+j` or `shift+k` to move items with your keyboard.

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Closed Issues on Boards

Labels	Milestones	New milestone
6 Open ✓ 1 Closed	Sort ▾	
<h3>Project Increment 3</h3> <p>Due by April 10, 2017 ② Last updated less than a minute ago Here we have to again show the 2nd progress report for the project with further extended features as compared to increment 2.</p> <p>100% complete 0 open 2 closed Edit Close Delete</p>		
<h3>Project Increment 2</h3> <p>⚠ Past due by about 1 month ② Last updated about 1 month ago Here we have to again show the 2nd progress report for the project with further extended features as compared to increment 1.</p> <p>100% complete 0 open 3 closed Edit Close Delete</p>		
<h3>Project Increment 1</h3> <p>⚠ Past due by about 1 month ② Last updated about 1 month ago As this project is based on Agile model, so we need to conquer each...(more)</p> <p>100% complete 0 open 5 closed Edit Close Delete</p>		

Burndown Chart



"Third 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

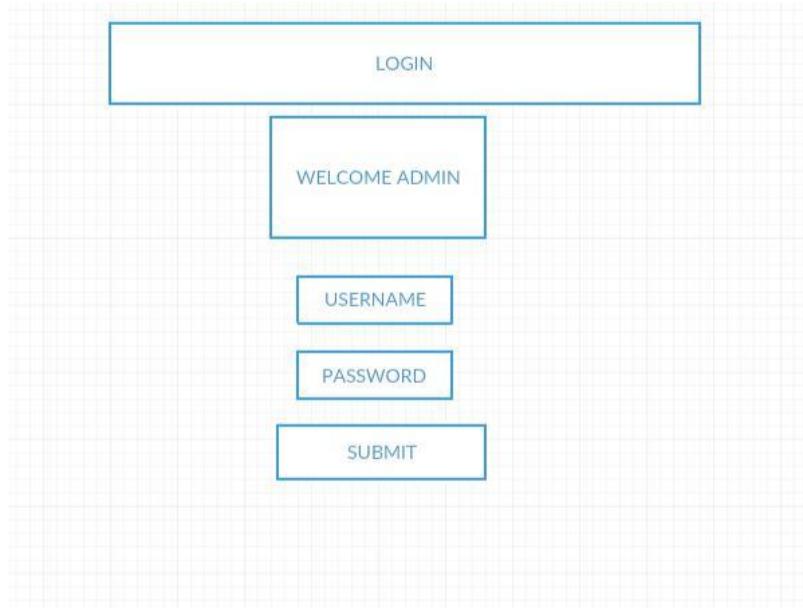
[Book Slot for Appointment](#)

[View Report](#)

[Give Feedback](#)

"Detailed Design of Features (Using Tools)"

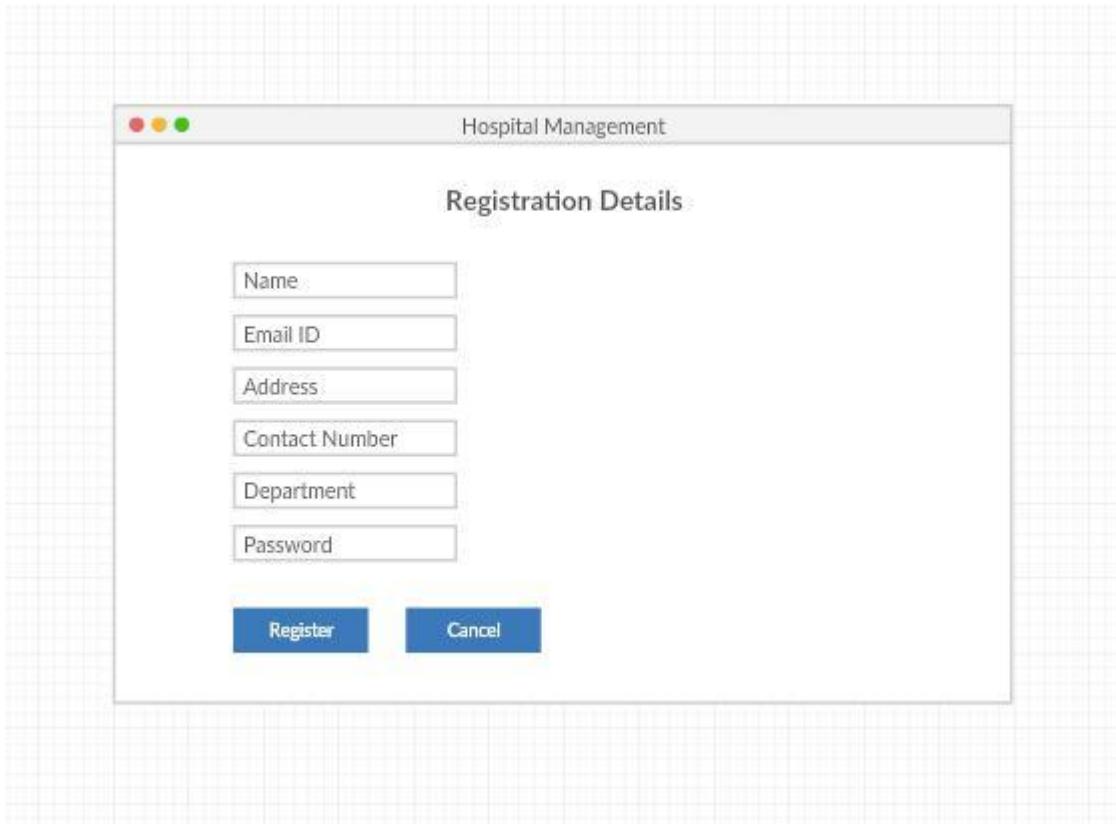
Using wireframes



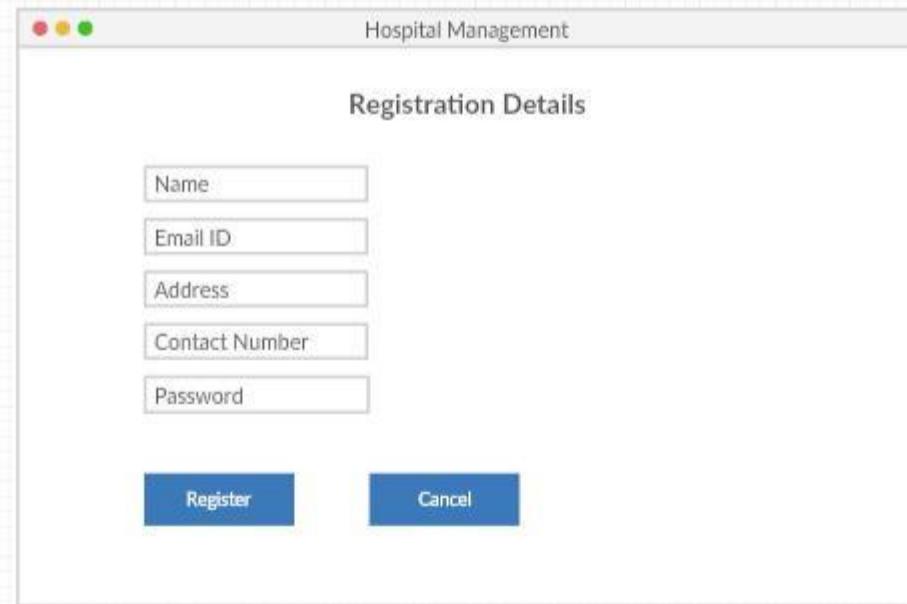
Admin Page



Admin Dashboard



Doctor Registration



Hospital Management

Registration Details

Name

Email ID

Address

Contact Number

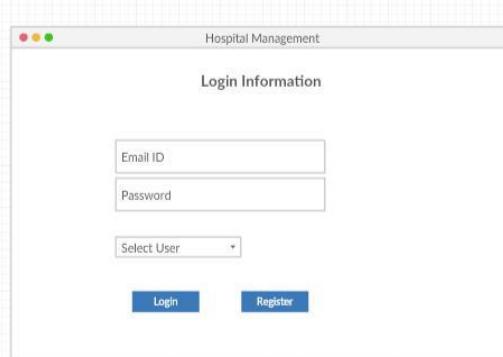
Password

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

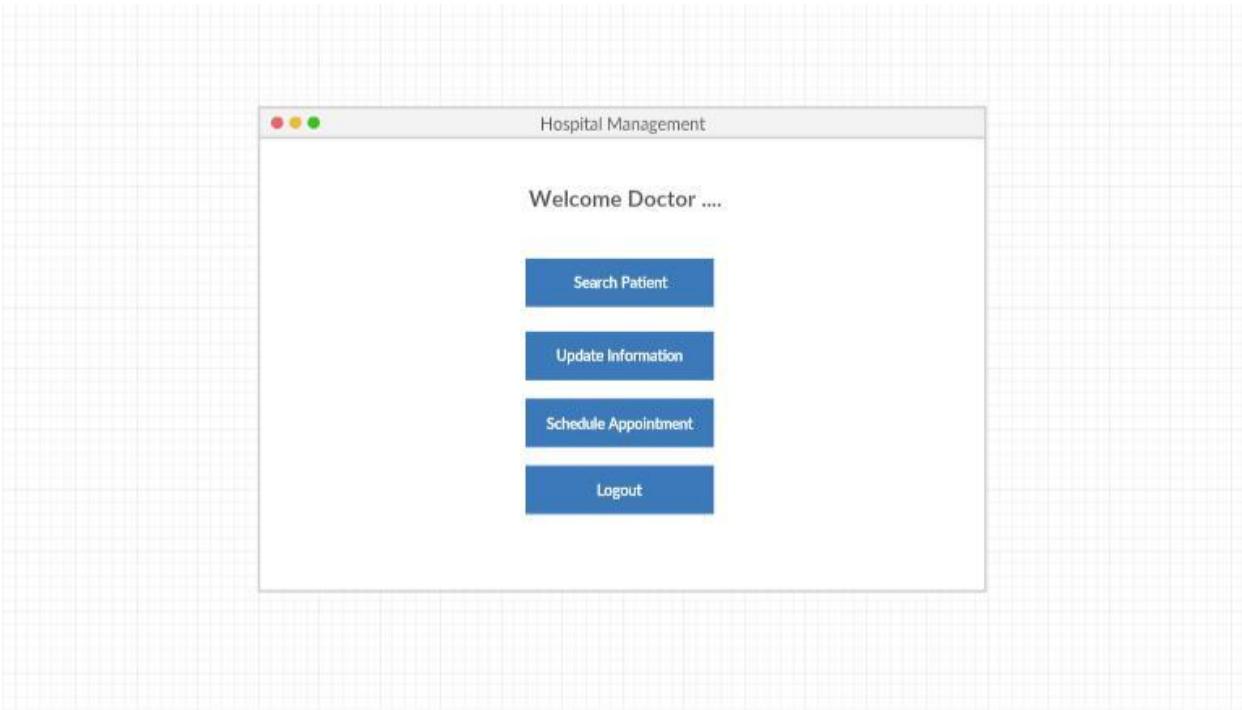
Select User

Login

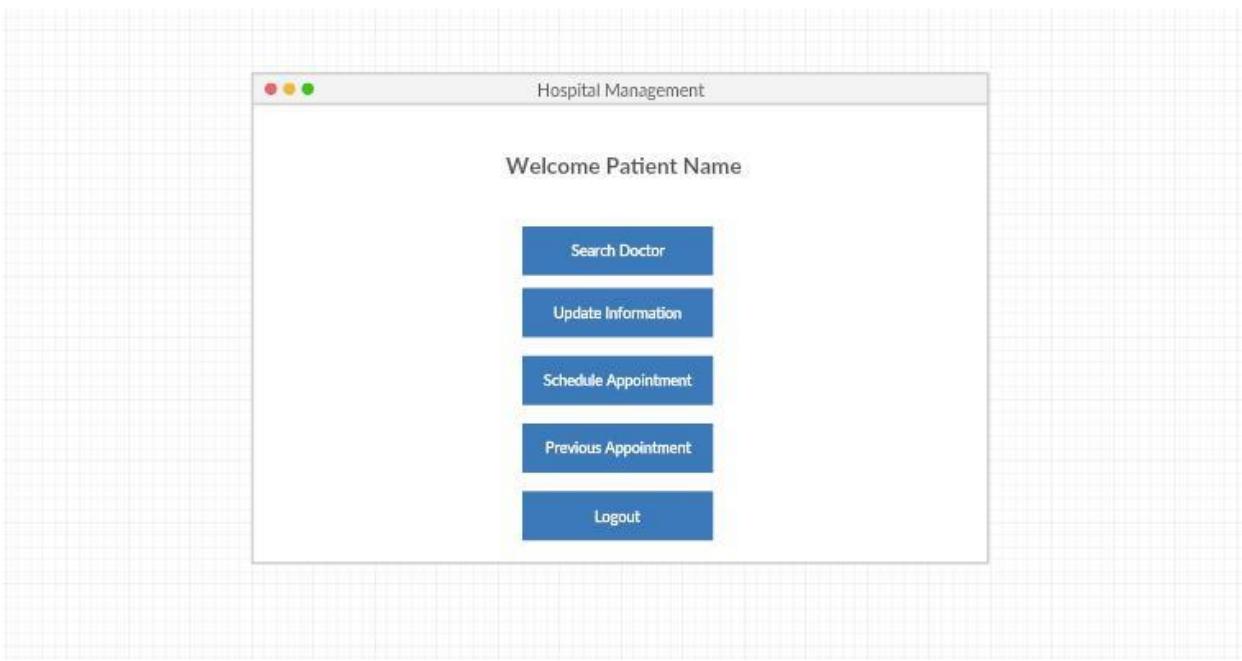
Register

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

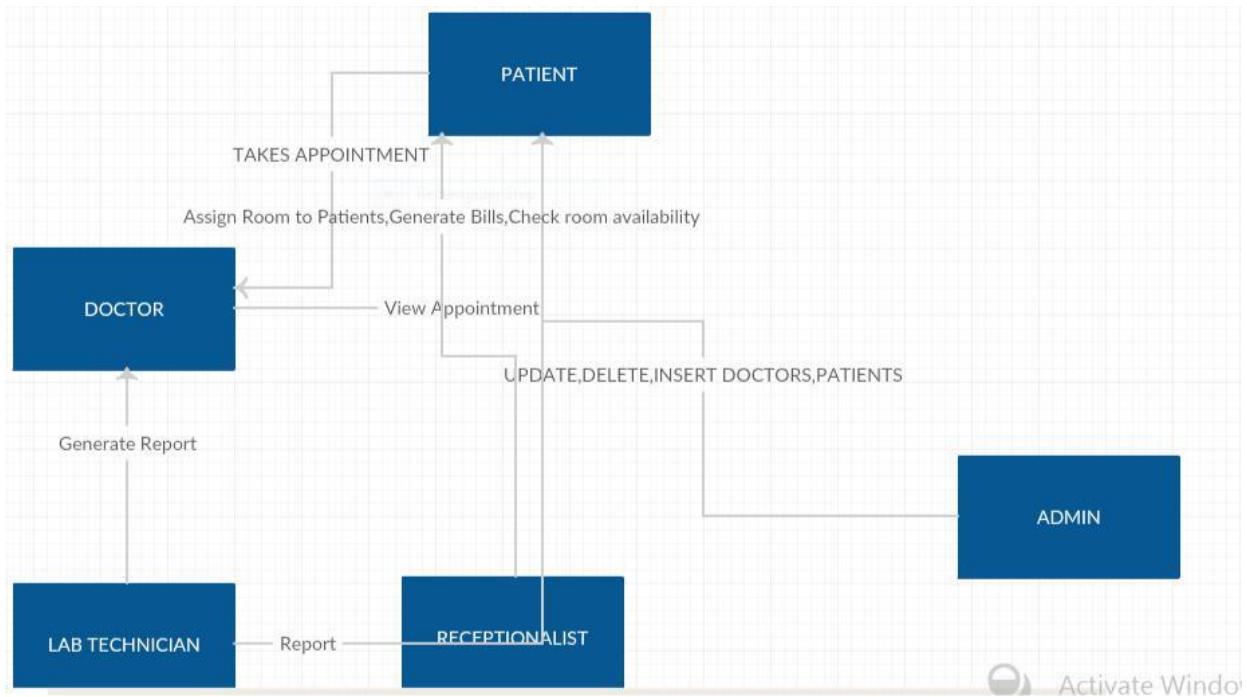


Doctor Dashboard

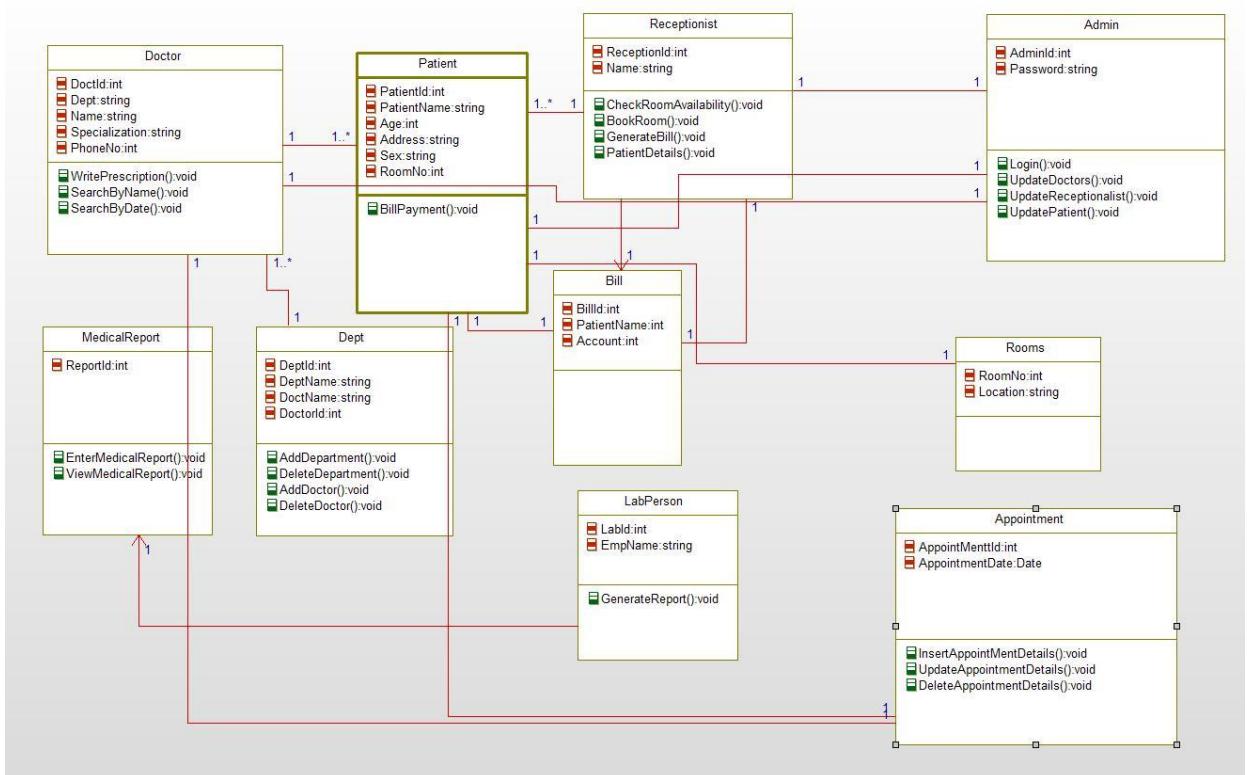


Patient Dashboard

Architecture Diagram



Class diagram

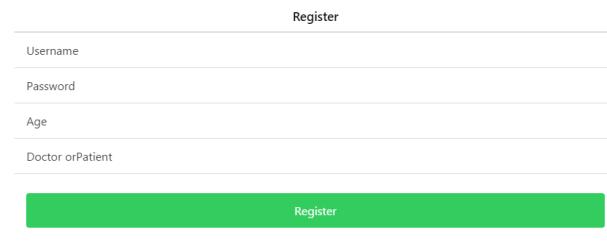
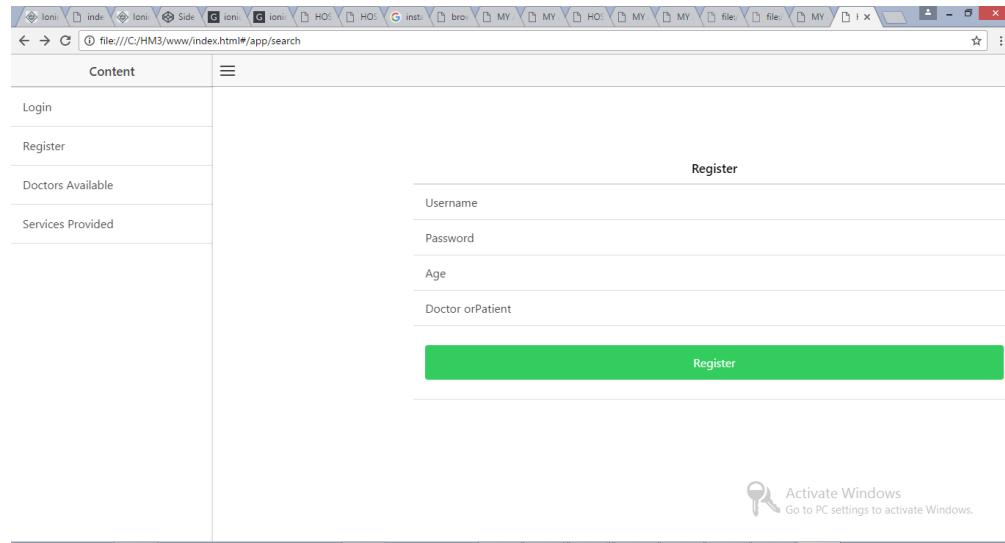


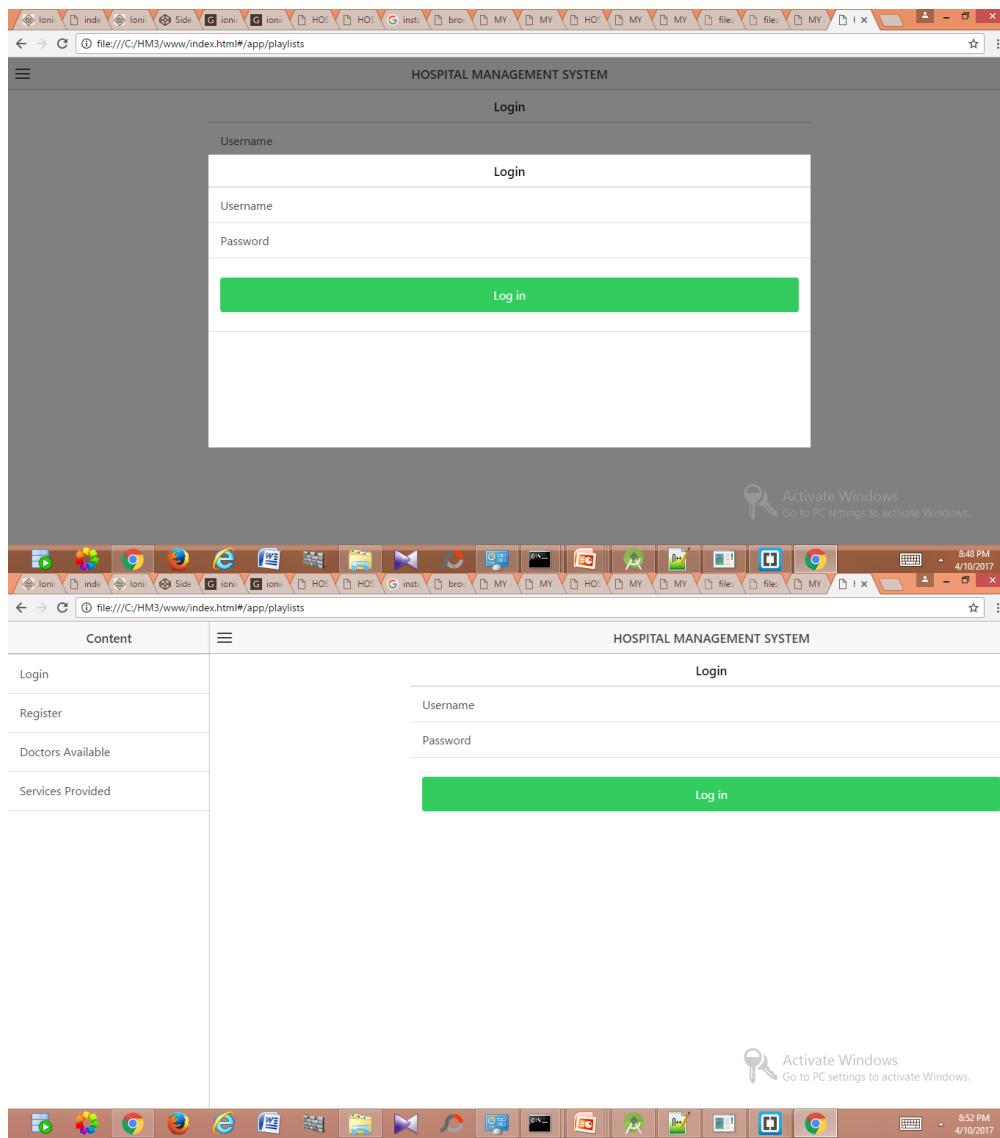
"Implementation and Deployment"

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

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

Implementation and Deployment in Ionic(3rd Phase)

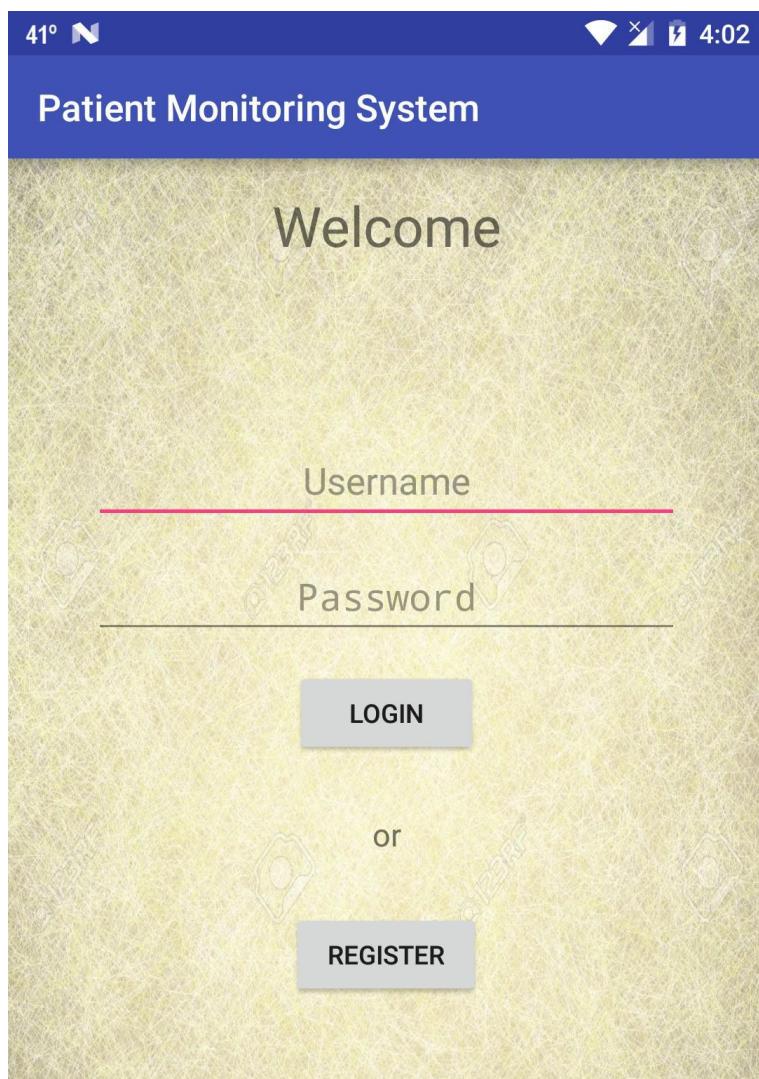




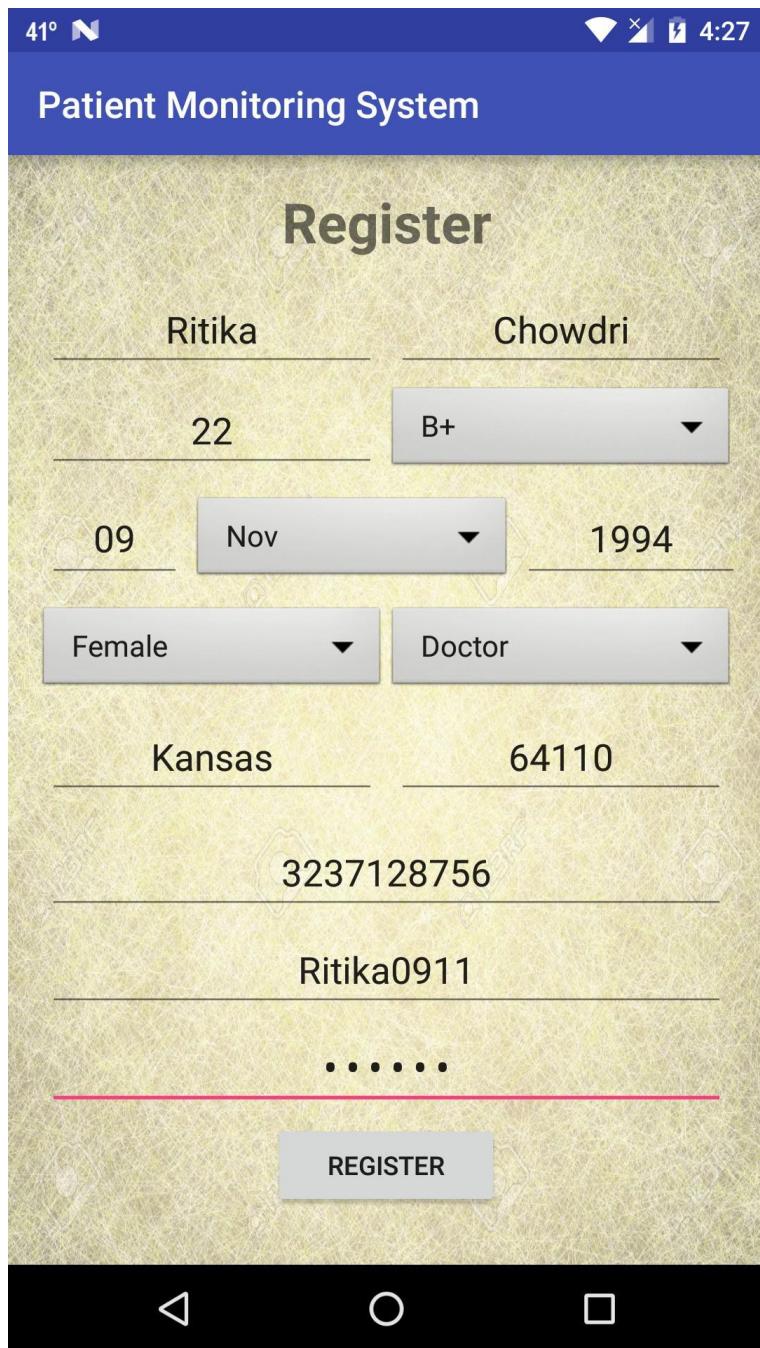
Mongo DB Implementation Trial

The screenshot shows the mLab MongoDB interface. At the top, there are tabs for Collections, Users, Stats, Backups, and Tools. Below the tabs, there are two sections: 'Collections' and 'System Collections'. In the 'Collections' section, there are two entries: 'quotes' with 3 documents, 8.31 KB size, and 'raj' with 6 documents, 8.64 KB size. Both entries have a delete icon. In the 'System Collections' section, there is one entry: 'system.indexes' with 2 documents, 0.22 KB size. The bottom of the window shows a toolbar with various icons and a status bar indicating 'Activate Windows'.

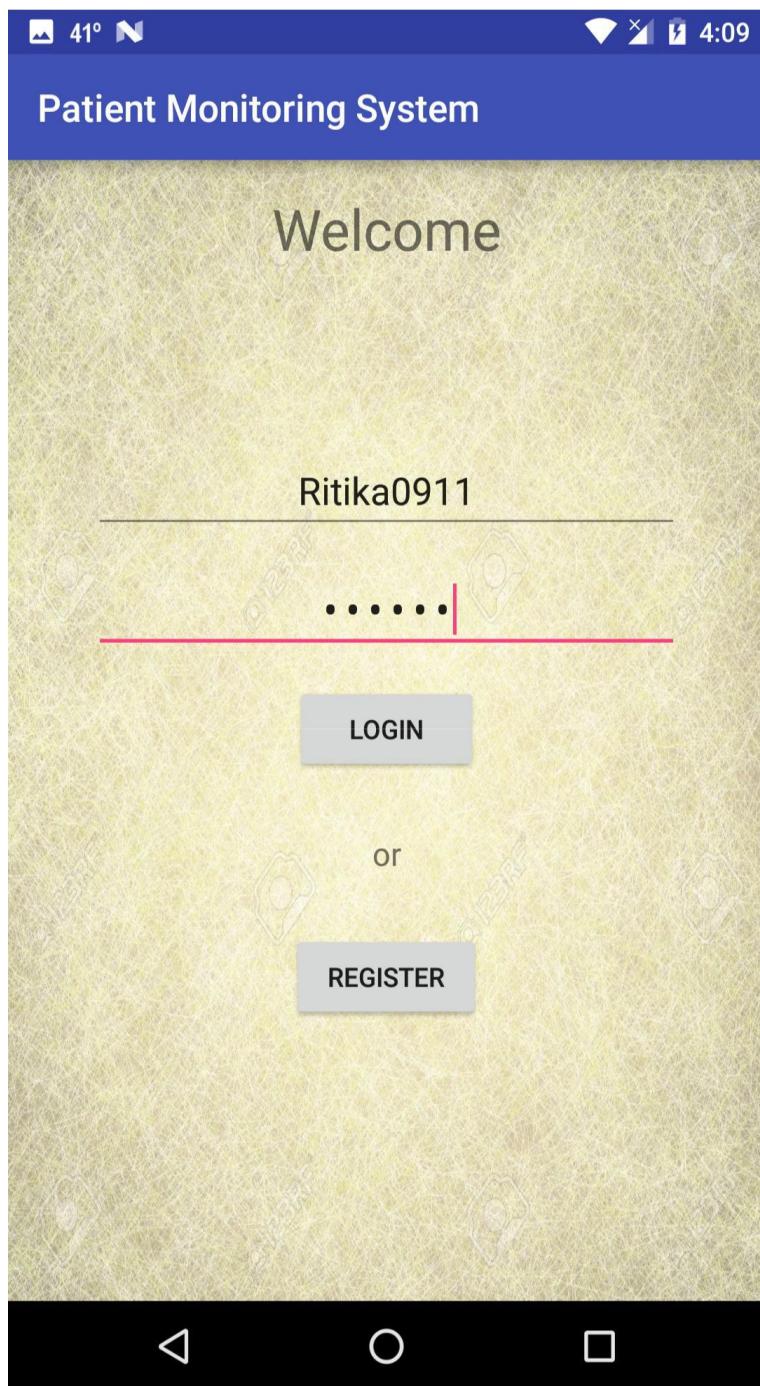
Screenshots after deployment are:



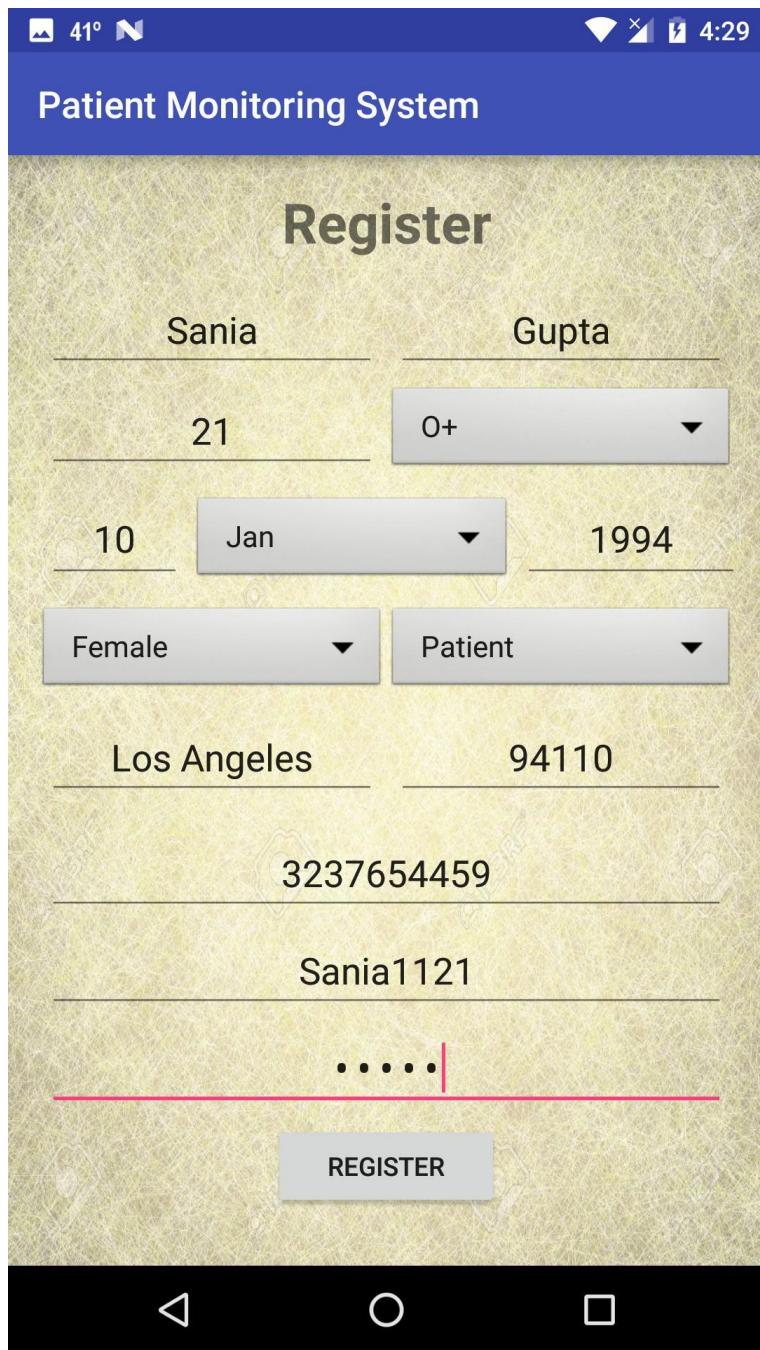
“Home Page”



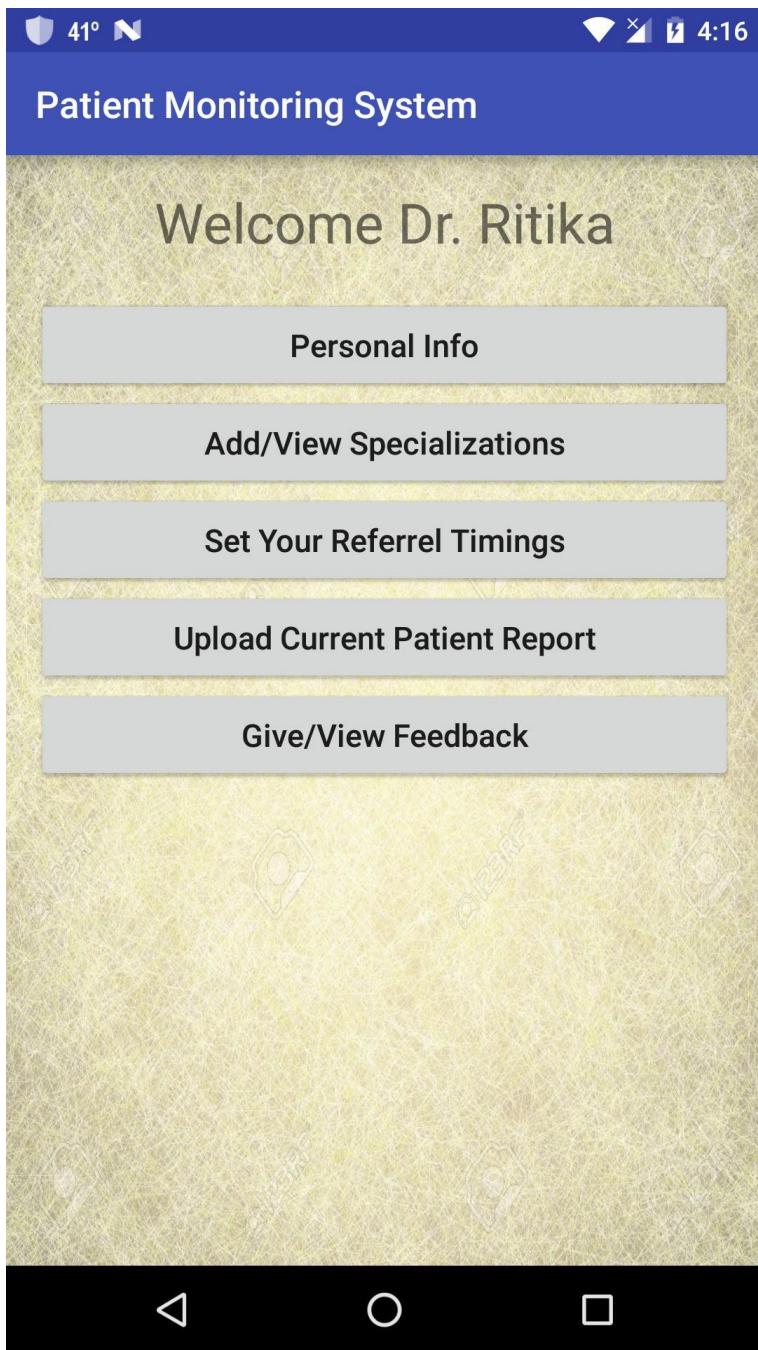
"Doctor Registration"



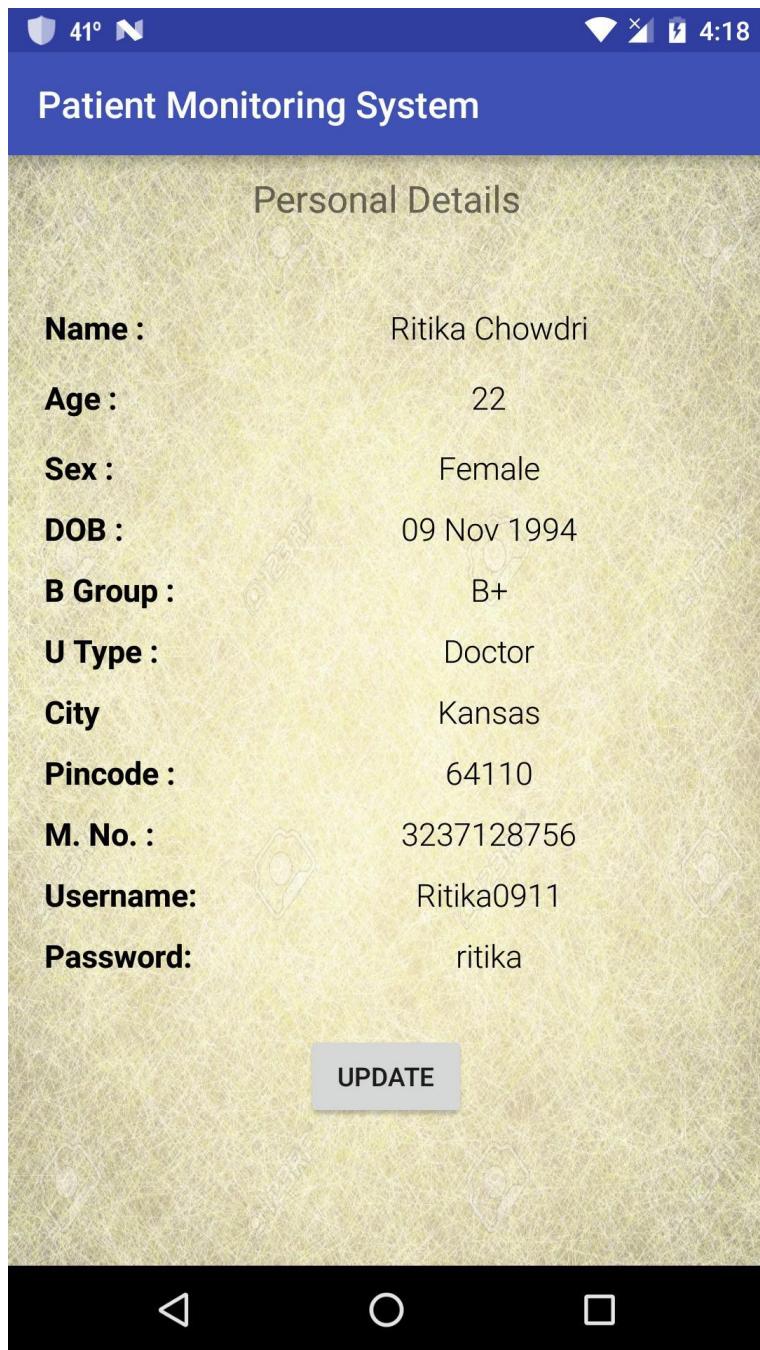
"Doctor Login"



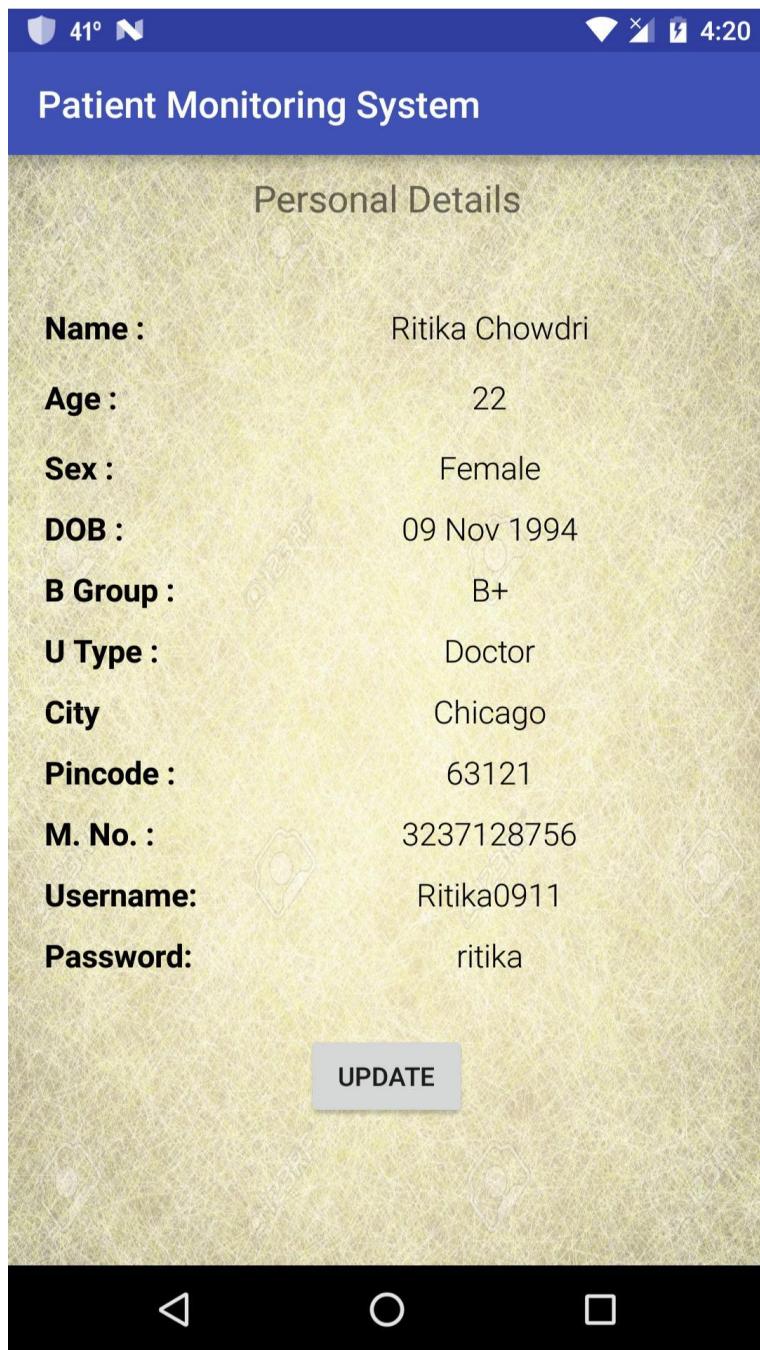
"Patient Registration"



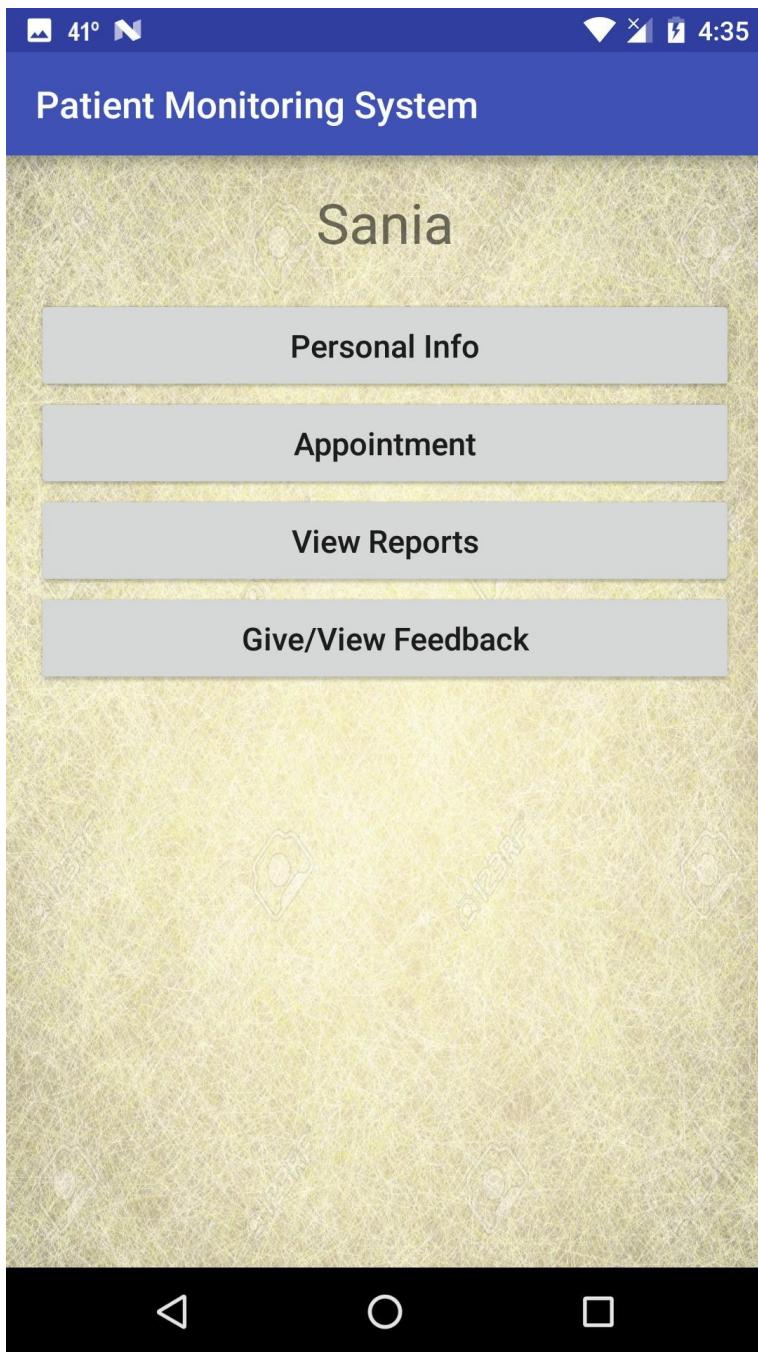
"Doctor Dashboard"



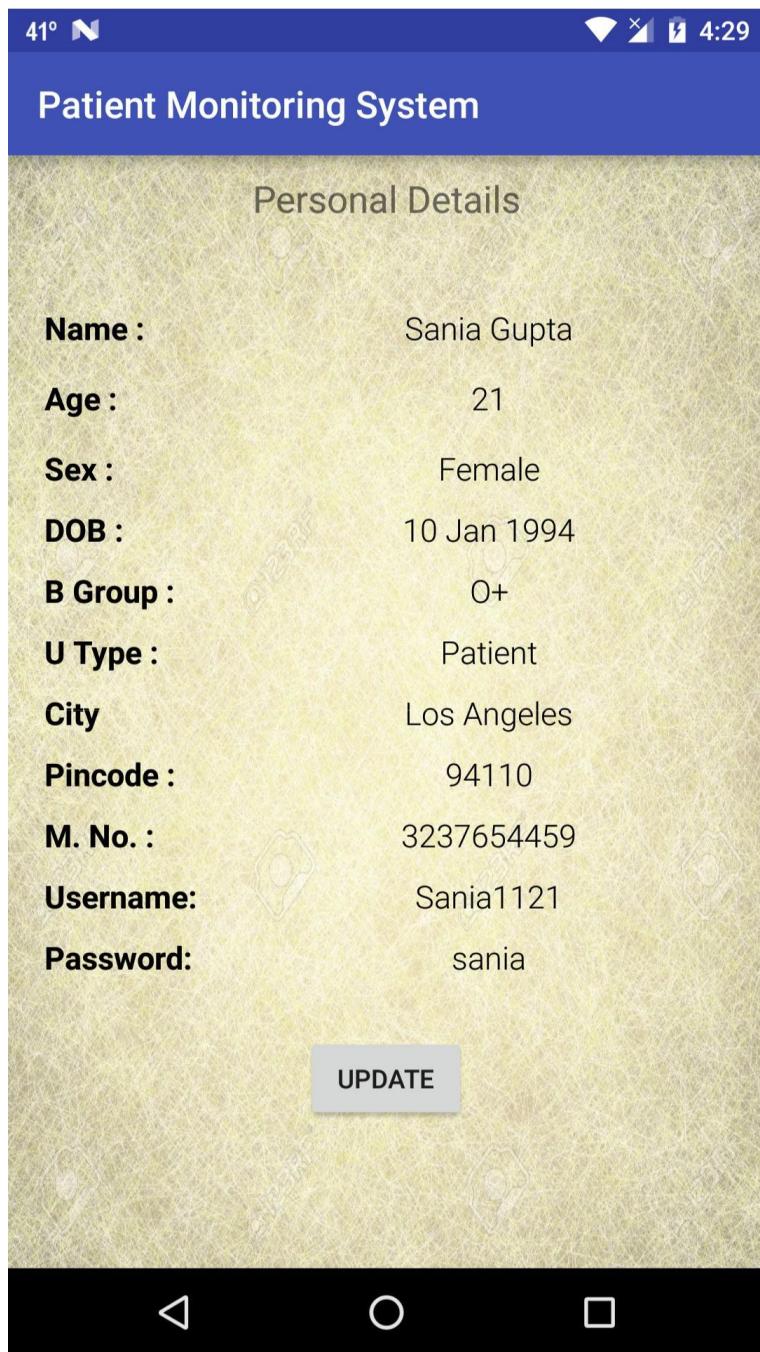
"Display Personal Information"

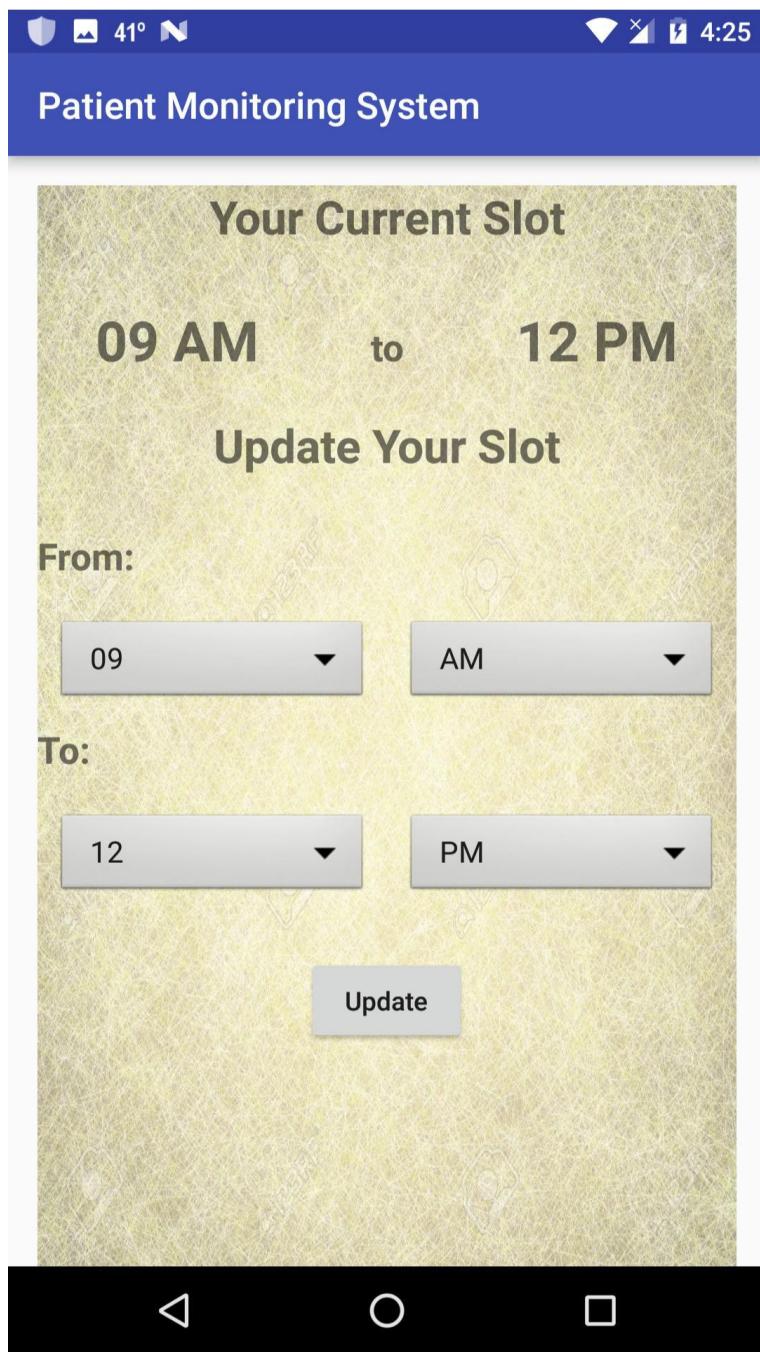


"Update Personal Information"

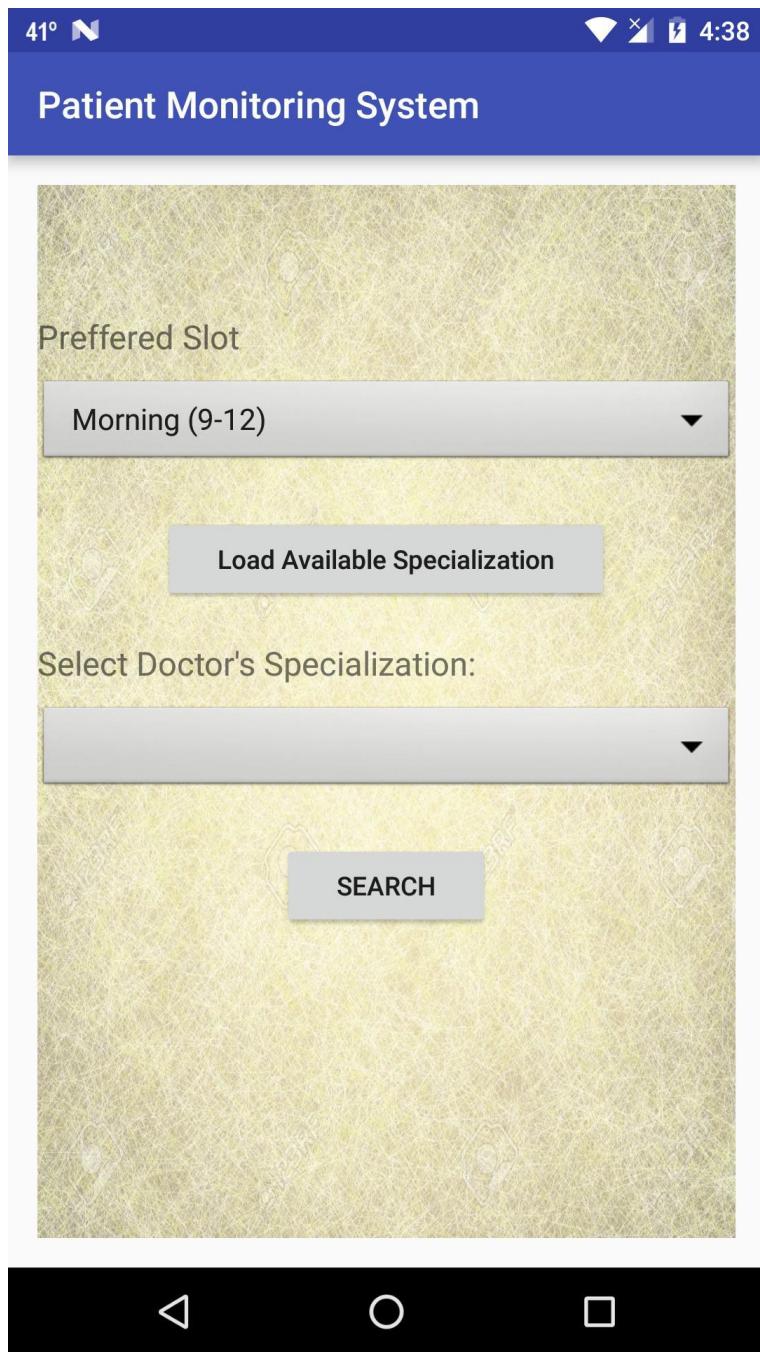


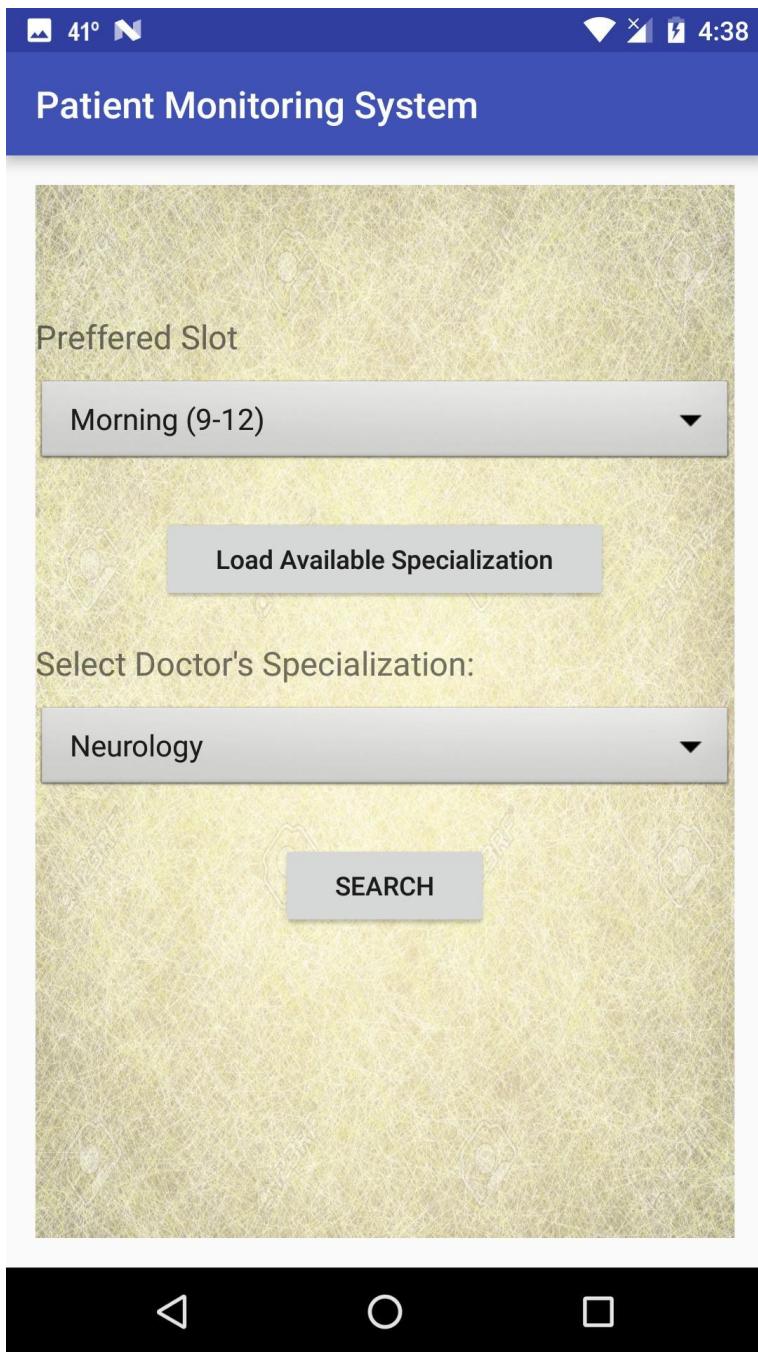
"Patient Dashboard"





"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
6	Display Personal Information	It display patients personal information	Displaying the input entered by user.	Displaying the information	Pass
7	Updating Personal Information	It updates the information entered by the user	Updates the values if user changes anything	Updated information	Pass
8	Booking a slot	Patient can book a slot for doctor meeting	Slot is booked and displayed to doctor	Slot is booked and doctor can see it	Pass
9	Slot Confirmation	Doctor can confirm or reject the slot asked by the patient	Doctor can confirm or reject slots	Doctor can confirm or reject slots	Pass
10	Write a feedback	Patient or doctor can write reviews	Patient or doctor can write review	Patient and doctor can write review	Pass

Bibliography

<http://ieeexplore.ieee.org/xpl/articleDetails.jsp?>

"CS5551 - Advanced Software Engineering"

[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/](#)