

**Lab Report**

**Course Title:** **Pervasive Computing and Mobile App Development Lab**

**Course Code:** **CSE335**

**Submitted to**

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**Project: Hospital Management System (HMS)**

**Introduction**

Hospital Management System is an android base application. In this application patients, doctor, receptionist have to login in the application. If user does not have a username or password they can sign up to the application. This sign-up data is stored in Firebase Realtime database. Every type user has different types of classes according to their need. Every user has key value which is their username. When user login into the application user can edit their data which will be automatically saved into Firebase Realtime database.

**Tools**

* Android XML: Page layout has been designed in Android XML
* Android: This project has been developed over the Android Platform
* Java: All the coding has been written in Java
* Firebase: Firebase has been used as database for the project
* Android Studio: I have used Android Studio for developing the project

When user opened the application user will see a text view the where “select login type” is written. Beside that a spinner is added with 4 options. When user choose patient a patient fragment will be visible. In this fragment patient can login or register as a new patient. When clicked in sign up button a patient signs up activity will be opened. After filling up all the data patient can register. While adding in firebase a checking will be happened. It will be checked in patient child under the main directory given username in sign up activity are already exits in under patient child in firebase realtime database. Because username used as a unique value in database to find a particular patient.

Doctor, Receptionist sign up process are same as patient. Doctor data store under doctor child in firebase. Receptionist data are store under receptionist child in firebase.

For login user first need to select login type. After selecting patient/doctor/receptionist fragment will be visible. Then user have to enter username and password. When username and password are match with firebase username and password then user can login the application. When user login in the application user’s username will be passed from login fragment to user home activity. Then in edit text view will be filled up with log in user data. Now user can update his information.

When admin login into the application admin can see all the patient, doctor, receptionist data from firebase. These data are displayed using recycler view.

**Application UI**

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| --- |
| **Home** |
|  |

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| --- | --- |
| **Patient Login** | **Patient Sign up** |
| **Patient Home** | **Patient Sign up** |
| **Doctor Login** | **Doctor Sign up** |
| **Doctor Home** | **Doctor Sign up** |

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| --- | --- |
| **Receptionist Login** | **Receptionist Sign up** |
| **Receptionist Home** | **Receptionist Sign up** |

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| **Admin Login** |
|  |

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| --- | --- |
| **Admin Home** | **Patient Data** |
| **Doctor Data** | **Receptionist Data** |