My Application

E-Attendance Register

Introduction

In the current scenario of various educational institutions to manage and maintaining student information is very tough task for any one. The whole academic record of the student information consists of monitoring their performance and progress changes periodically which is very huge workload on lecturers to handle and keep on updating the progress report of each and every student in against of their respective scheduled classes.

The traditional way of taking attendance through the lecturers is a manually in a register book in which they are used to do a manual calculation to maintain monthly attendance database of the students. Such system takes so much time to generate record and many times its creates an error also as it follows manual traditional system.

Apart from this, error problems some time many more problems are generated like lost of attendance register book or manually fake data inserted through unknown recourses which are really not authorized for that work. In order to reduce all these problems and concern overcome through this problem, a smart mobile based application is generated to increase its efficiency as well as its security by sending all information about the students

It is a beneficial step in every way for our future E-schools and E-colleges. This android based application used by the teacher through its subject id and class id display the digital register for the particular class students and finally submit it.

Therefore, it is crucial to reinforce the use of the mobile based attendance application to register system in order to improve the traditional process of recording and reporting the student's attendance in the higher educational organizations

Drawbacks of current existing system.:

- Manually calculated maintenance of data.
- Suddenly searching for any type of related data is very difficult as well as it creates mess over there.
- It does not provides the accurate data of attendance of students in the percentage calculation form.
- Portability.
- Losing of data problem can be occurred easily.

Objectives:

To develop and design an android-based mobile attendance application for the management of attendance records in the educational organization. To implement new technology development system to make it digitalized, autherized, secured and to keep it as records for as many years we want for its future use as per our need.

Environmental Setup

We can start our Android application development on either of the following operating systems −
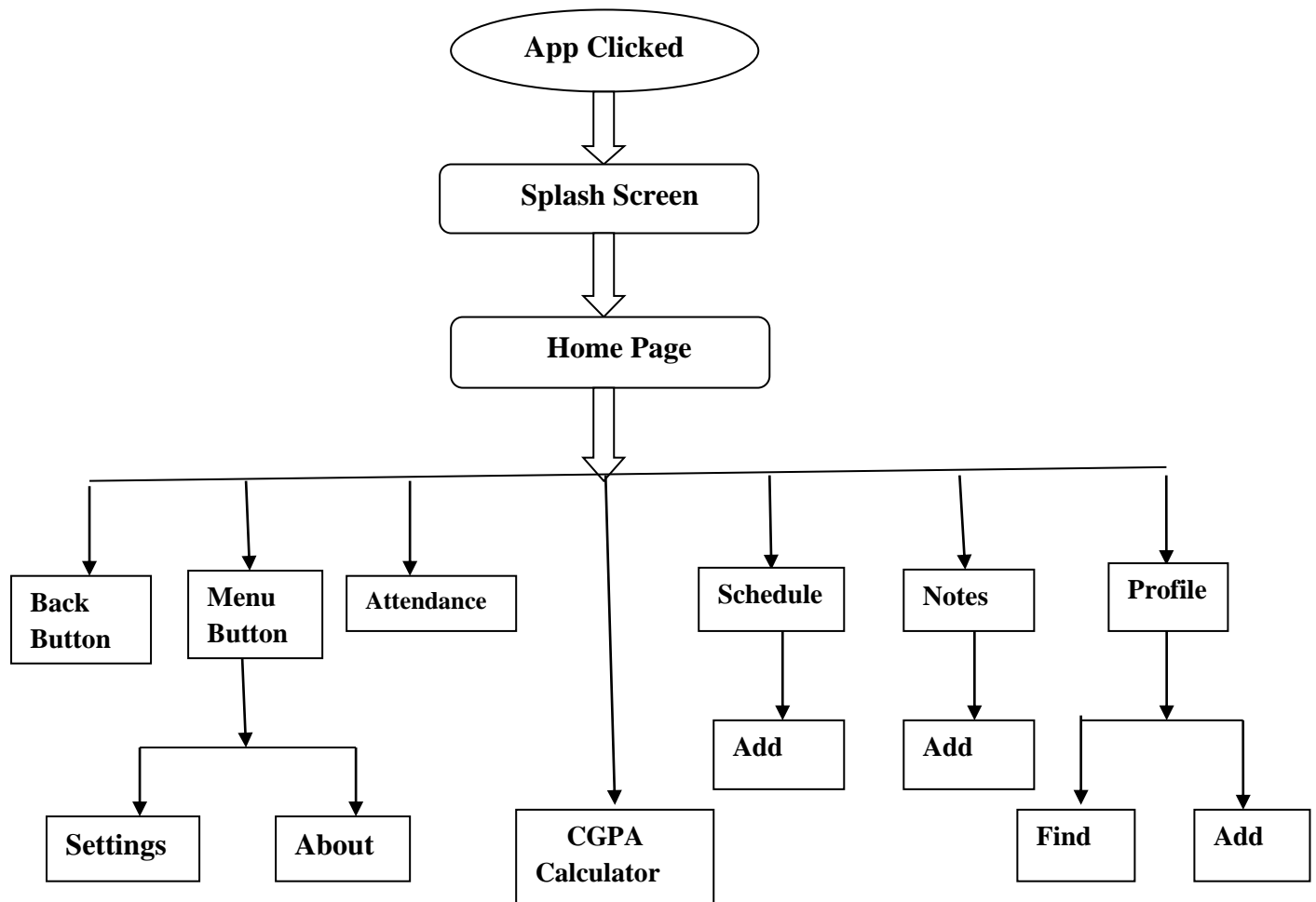
- Microsoft Windows XP or later version.
- Mac OS X 10.5.8 or later version with Intel chip.
- Linux including GNU C Library 2.7 or later.

Second point is that all the required tools to develop Android applications are freely available and can be downloaded from the Web. Following is the list of software's you will need before you start your Android application programming.

- Java JDK5 or later version
- Android Studio

Microsoft Windows 10 and Android Studio 3.0 platform are used while development of this application.

Flow chart diagram:

```
                          ┌──────────────────┐
                          │   App Clicked    │
                          └────────┬─────────┘
                                   │
                          ┌────────▼─────────┐
                          │  Splash Screen   │
                          └────────┬─────────┘
                                   │
                          ┌────────▼─────────┐
                          │    Home Page     │
                          └────────┬─────────┘
```

Back Button	Menu Button	Attendance		Schedule	Notes	Profile

Settings	About		CGPA Calculator	Add	Add		Find	Add

App module description:

There are basically two modules in the e- attendance application.:

❑ Home page

- Notes
- Profile
- Cgpa calculator
- Scheduler
- Attendance

❑ Menu

- Settings
- About

1. **HOME PAGE**

    Just after the splash screen, the main page known as home page appears. At top right corner, there is a menu option which takes to next page having two options – Settings and About. And at left corner, the arrow is given to exit the app.
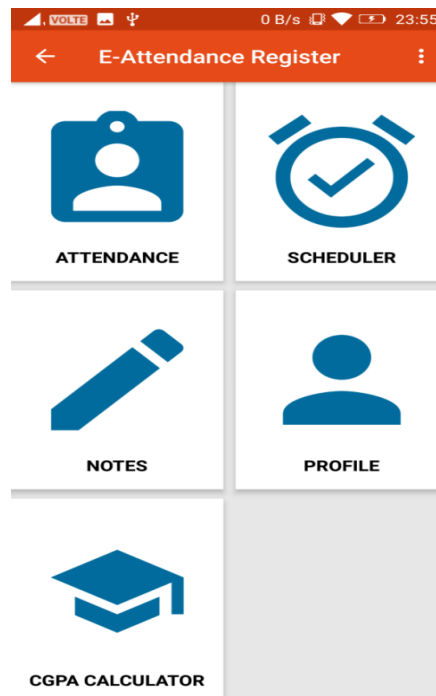
   The home page has basically five options –

    - **ATTENDANCE**

      The teachers will select this for marking attendance of students respective of the subjects and the class and timing. It means that there is proper alignment of data regarding lecture hour and day, class, subject. It will calculate attendance automatically and store it in student's profile total attendance.
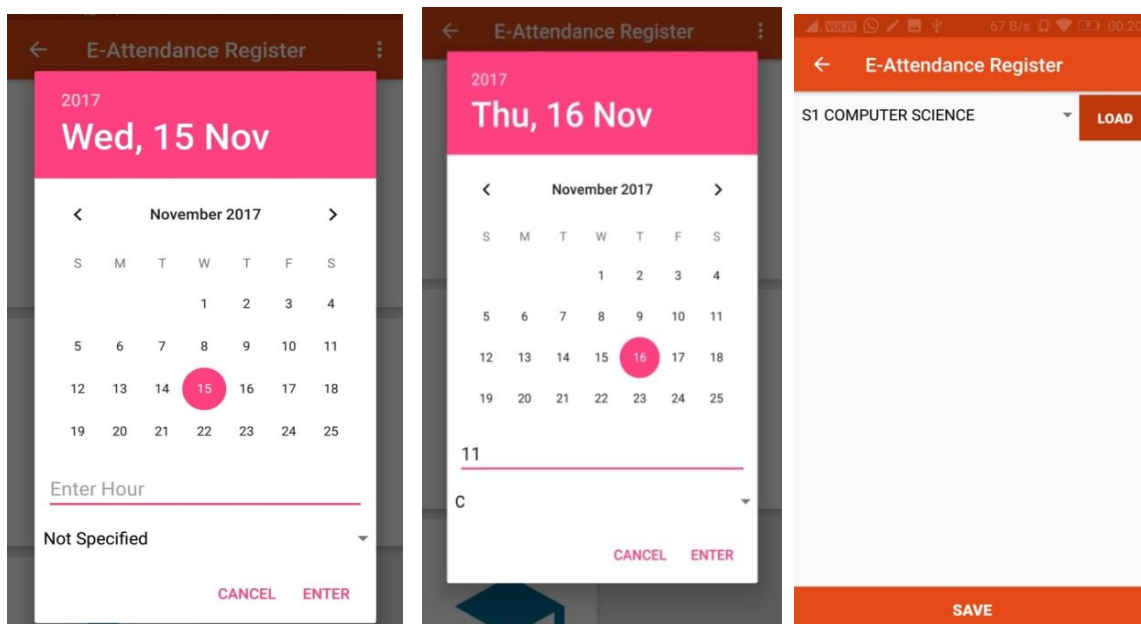
The first screenshot shows the calendar to enter the day and date with time hour and subject. After entering data, class list will appear. Class will be selected and loaded of which attendance to be marked.

- **SCHEDULAR**
  The teacher can add their schedules in advance to not to forget. They can select day, class, subject and time also. After entering, schedule will be displayed prior to the timings.
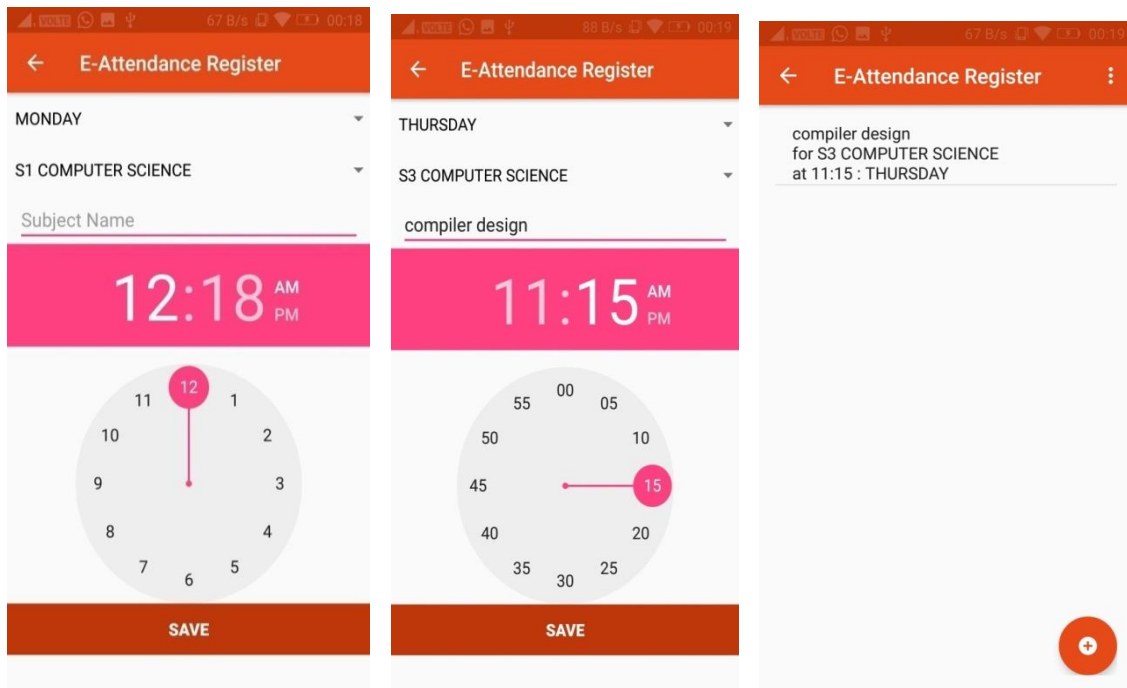

- **NOTES**
  Teacher can add their notes to further share them with students. The fields require to enter topic, its matter and the subject then it will be displayed on the page and the phone's notifications.
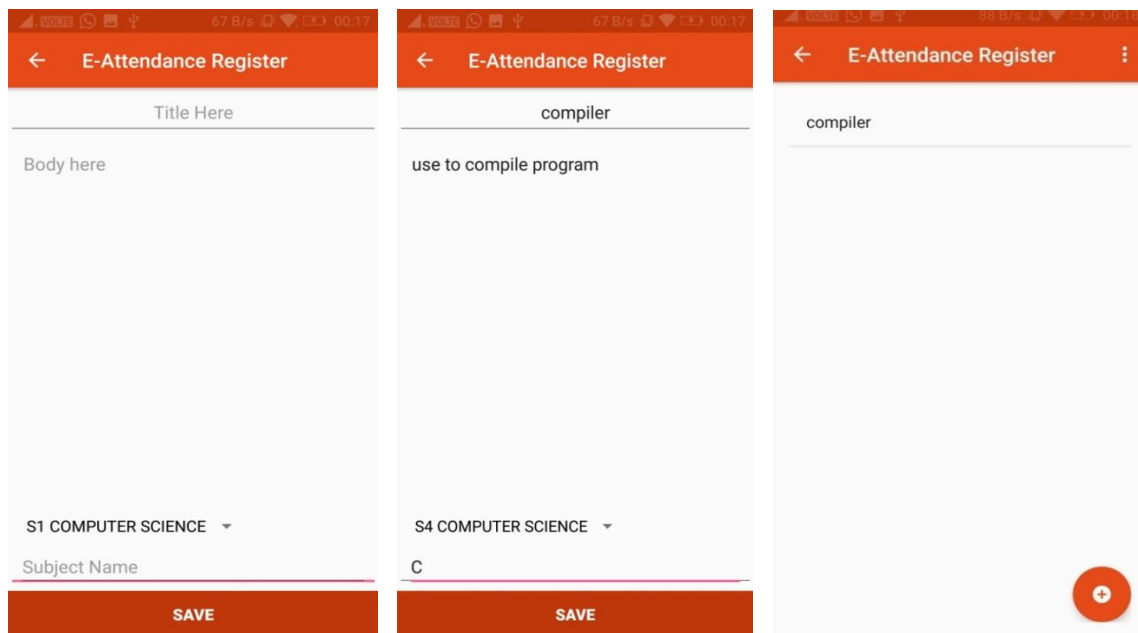
- **PROFILE**

  The profile adds up the new admission and also finds the data or profile of the given admission number. The new admission requires the name, admission number, roll number and class. And automatically it will be added in the particular class list. They can find the student profile by just entering admission number.
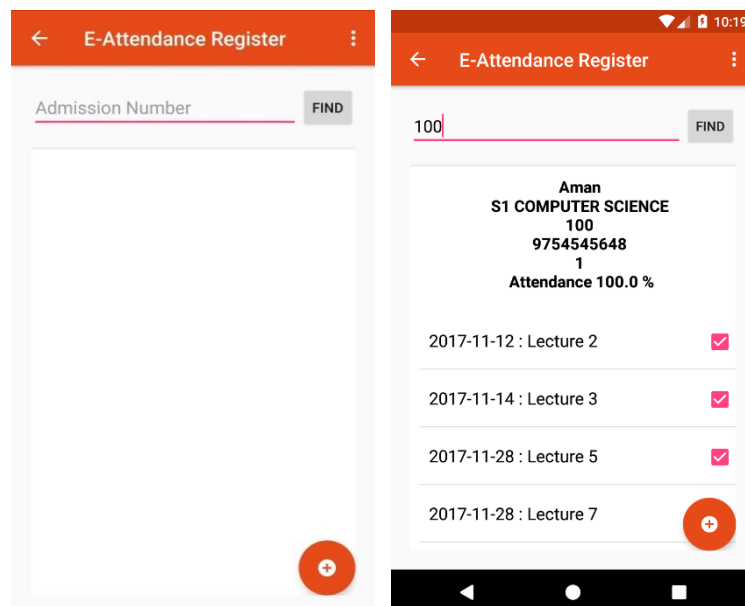

- **CGPA CALCULATOR**

  It calculates the CGPA according the given SGPA. Credits are given by default. The grades are required to be entered. The final result will be appeared after clicking find button.
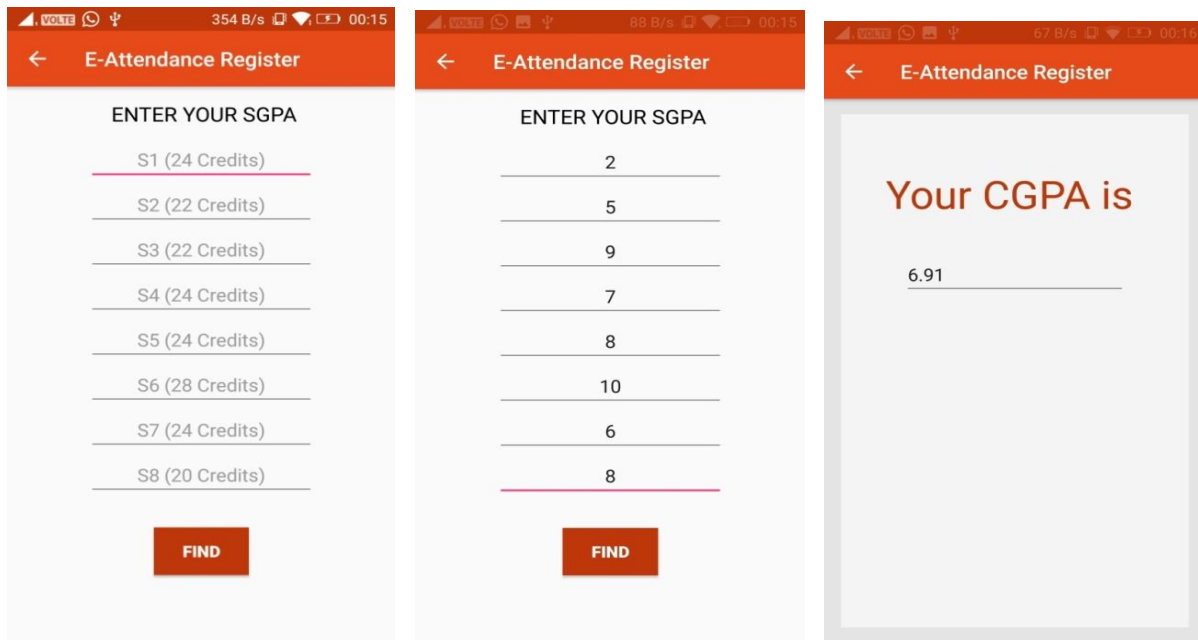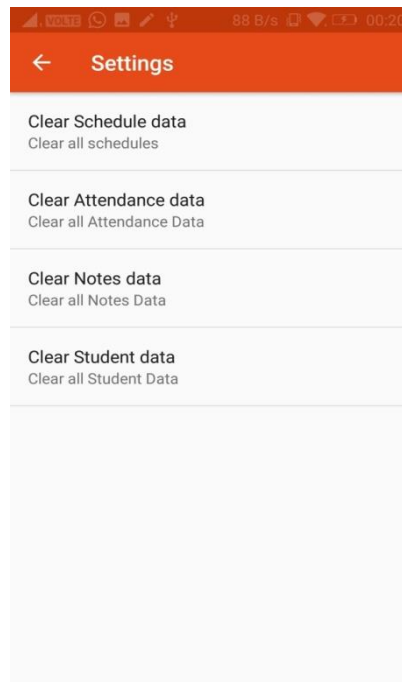
2. MENU BUTTON

Just after the splash screen, the main page known as home page appears, At top right corner, there is a menu option which takes to next page having two options – Settings and About. And at left corner, the arrow is given to exit the app.
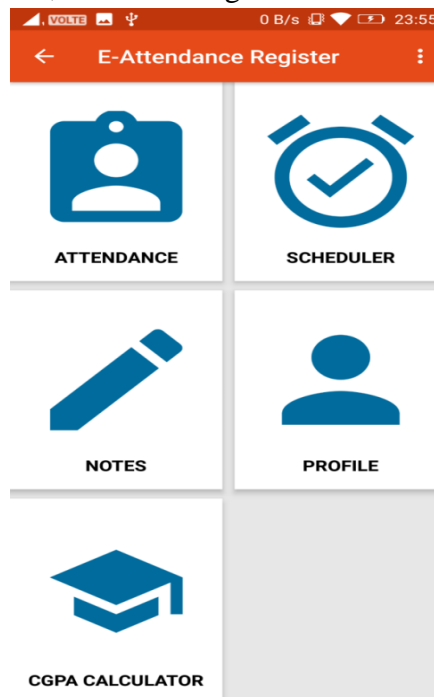
- **SETTINGS**

  It has separate options for clearing stored data for each category.

- **ABOUT**

  It shows the info about app.