VIT®

Vellore Institute of Technology

(Deemed to be University under section 3 of UGC Act, 1956)

School of Information Technology& Engineering

M.Tech Software Engineering

PROJECT REPORT

SWE2007 – Software construction and maintenance

Slot: D1

TEACHERS ASSISTANT APPLICATION USING ANDROID STUDIO

SUBMITTED BY

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FACULTY INCHARGE

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ABSTRACT

Since ages, marking attendance has been one of the most important way to record and track the presence of students in schools, colleges. Attendance marking in different forms has been in use in various organization to record the presence of their human resource. This helps the organization in generating their month-end payroll, and other activities. Such systems may be manual or automated. Biometric-based system, card-based system are some of the examples of automated attendance system. In this project, an attempt has been made to record attendance through mobile devices. The aim of the project is to create an Android mobile application for attendance system that can be used by all teachers for their respective courses. This application fetches the details of the courses allotted to the respective faculty and the students enrolled in the courses from the server using the internet connection and stores it in the mobile database. This application stores the attendance in the mobile internal database and the faculty can view and update the attendance whenever required. At the end of the month, when the faculty is needed to upload the attendance, they can directly upload it from their mobile in the server provided the internet connection is available.

INTRODUCTION

The attendance system gives an ease in the working, managing and day-to-day functions of the system in an easy way through an intuitive interface that makes it easy for every faculty to utilize it fully and is virtually maintenance free Our Attendance System simplifies the taking and maintenance of attendance through mobile devices. The system is deployed on every facultys mobile and the faculty can take the attendance for their respective classes and store it in the mobile database. The software focus on the easy way of storing and uploading the attendance detail in the server with the use of mobile phones.

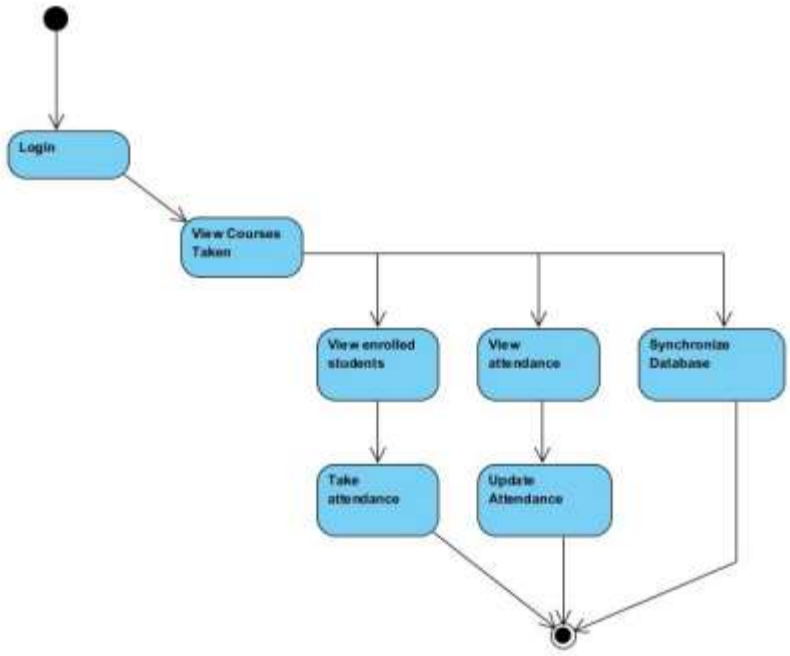
ANALYSIS

Requirement Analysis

The Application developed follows the following steps of SDLC. Under which the SRS model developed for the system is as listed below

The SRS model Contains

- Functional Requirements.
- Non-Functional requirements



1.Login

Description:
The faculty will login into the application with the given user ID and password. If the user ID and password is correct, user will be prompt to proceed option else error message will be displayed

Input: User ID and Password
Output: Prompt to ”Proceed” option

2.View Course Taken

Description:
After login, the faculty can view the list of courses taken by him during the semester and then he can get the list of student enrolled in that course.

Input: Select the display option
Output: List of courses taken

3.View Details of Enrolled Students

Description:
The faculty can view the list of student enrolled in a particular course.

Input: Select a course and select option to display student list
Output: Enrolled student list

4.Take Attendance

Description:
Faculty take attendance on a particular day by swiping over a student name to mark him absent.

Input: Mark student absent
Output: Confirmation message

5.Synchronize Database

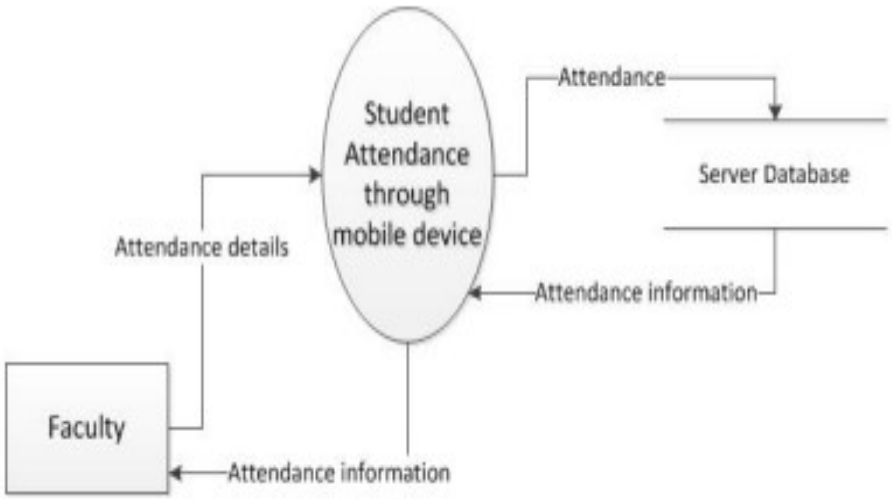
Description:
At the end of the month or at any time when faculty wishes, he can upload the attendance details of a particular subject in the Online Server

Input: Select Sync button
Output: Confirmation message

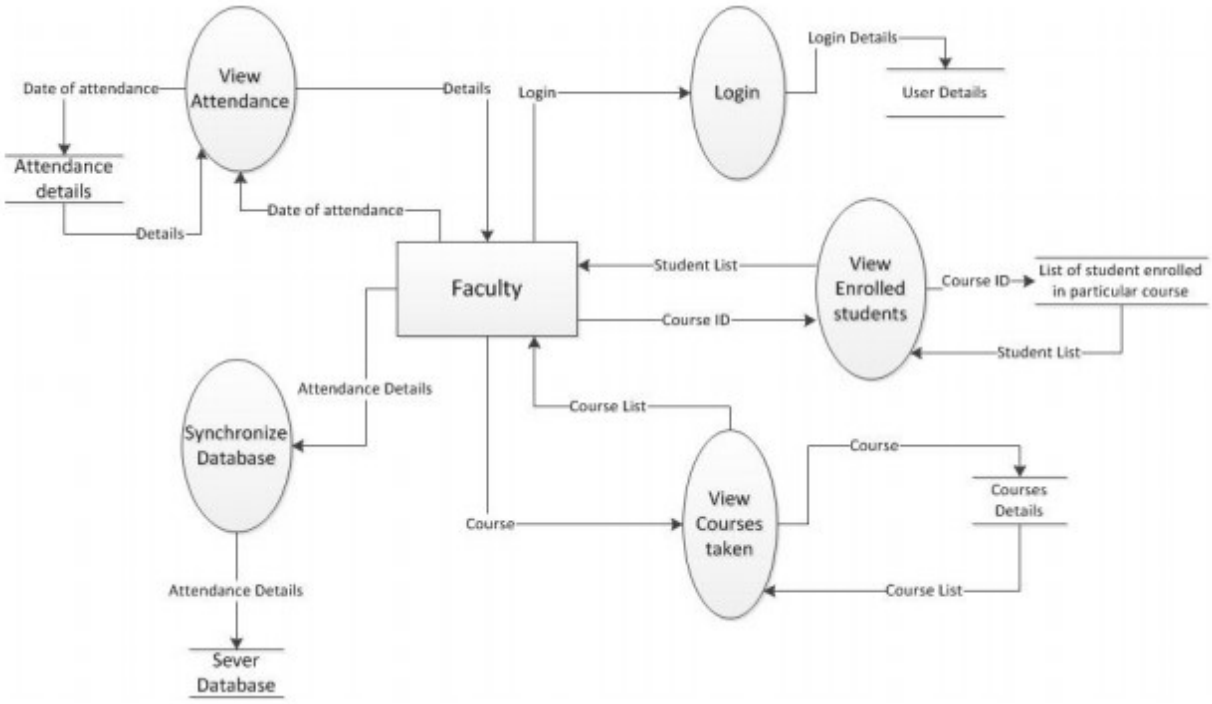
DESIGN

Design for android application

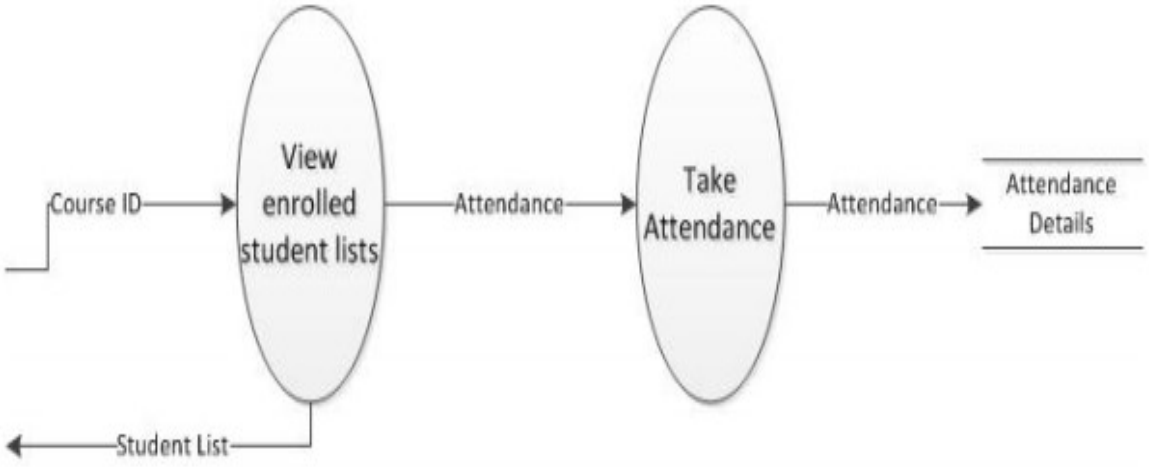
Context diagram



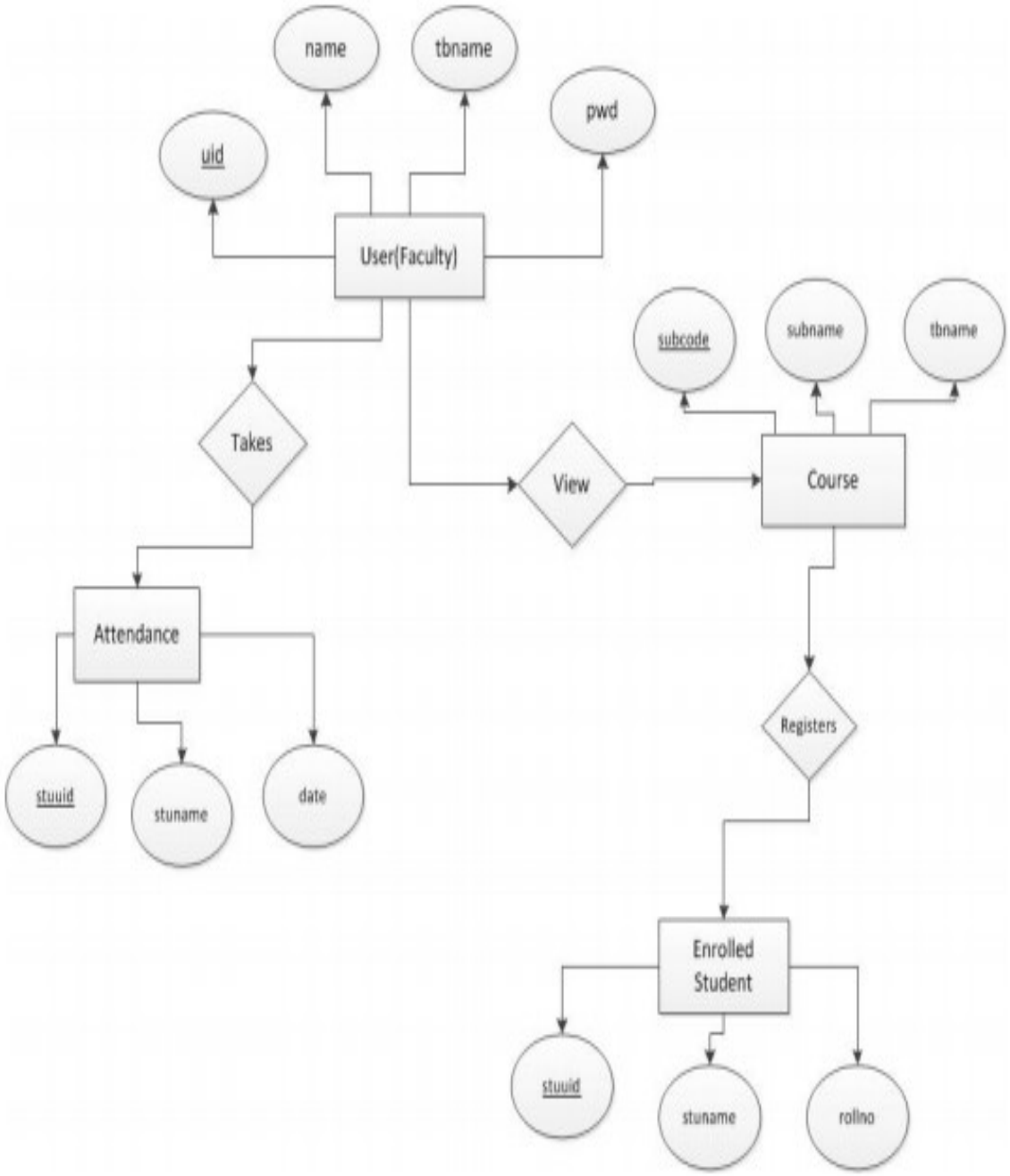
DFD – 1


View Attendance
Date of attendance
Attendance details
Details
Date of attendance
Details
Login
Login
Login Details
User Details
Faculty
Student List
Course ID
View Enrolled students
Course ID
List of student enrolled in particular course
Student List
Attendance Details
Synchronize Database
Course List
Course
View Courses taken
Course
Courses Details
Course List
Course
Attendance Details
Sever Database

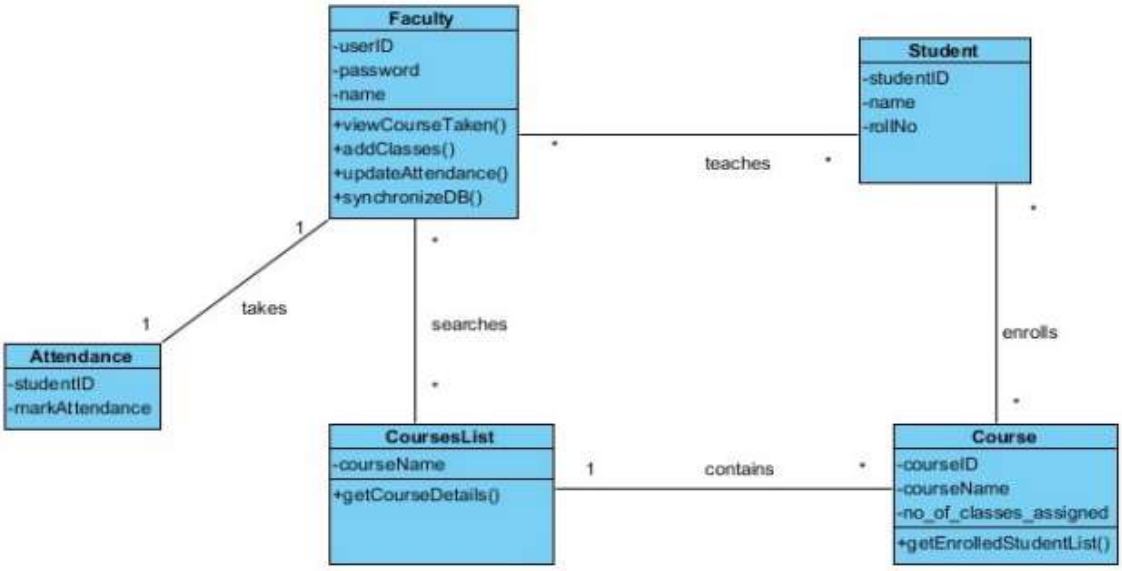
DFD -2


Course ID
View enrolled student lists
Attendance
Take Attendance
Attendance
Attendance Details
Student List

ER DIAGRAM


name
tbname
pwd
uid
User(Faculty)
subcode
subname
tbname
Takes
View
Course
Attendance
Registers
stuuid
stuname
date
Enrolled Student
stuuid
stuname
rollno

Class diagram



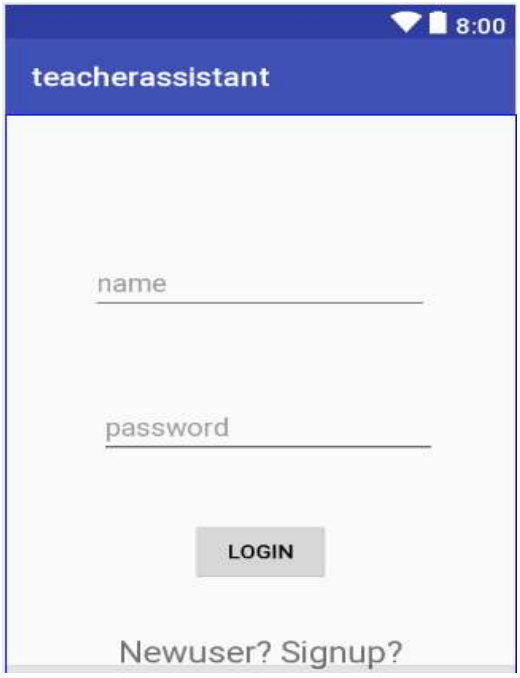
Android API

API stand for Application Programming Interface
. It contains the following features-

- Accept request by POST/GET method
- Execute PHP class to update/access data from database
- Give output in Jason format

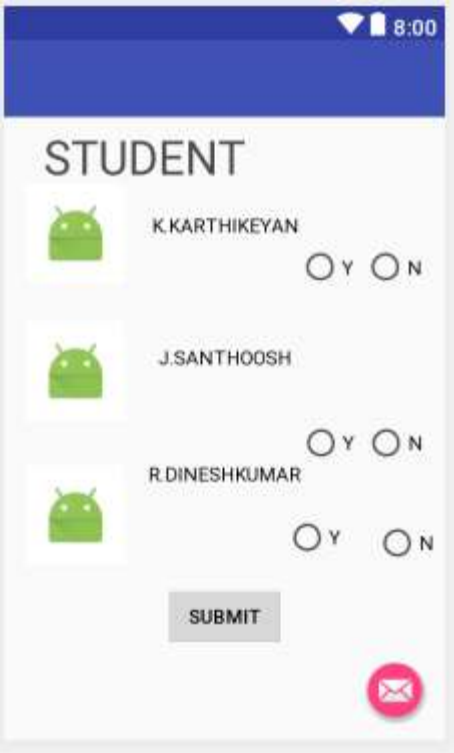
IMPLEMENTATION

Graphical User Interface

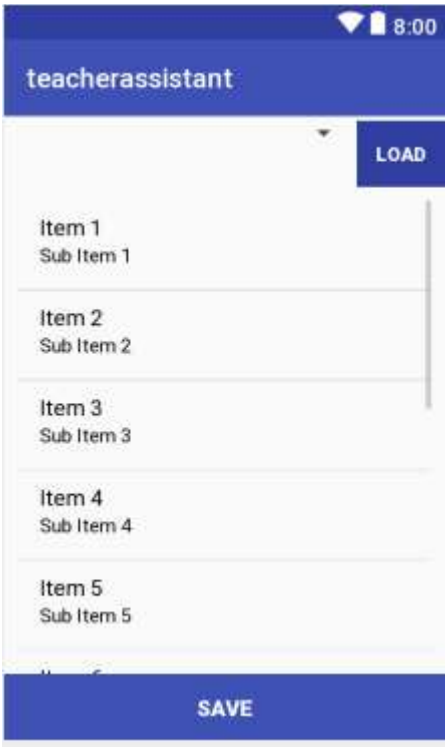


SIGN UP

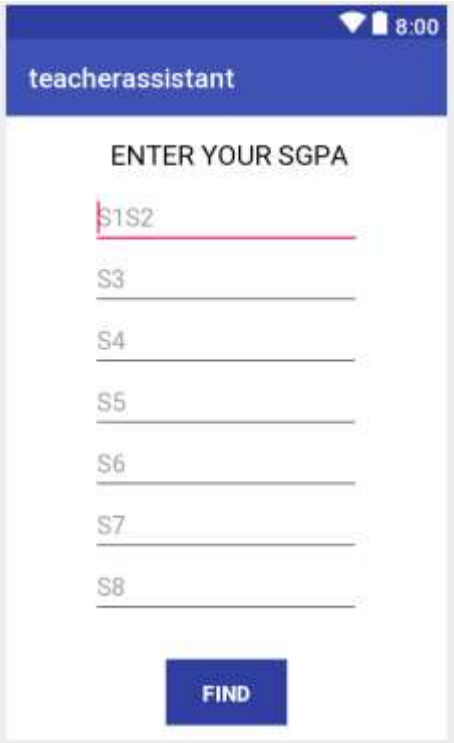
Attendance



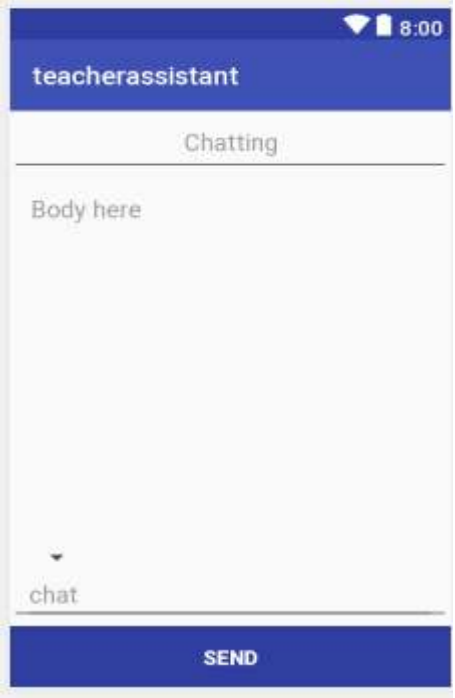
Attendance view



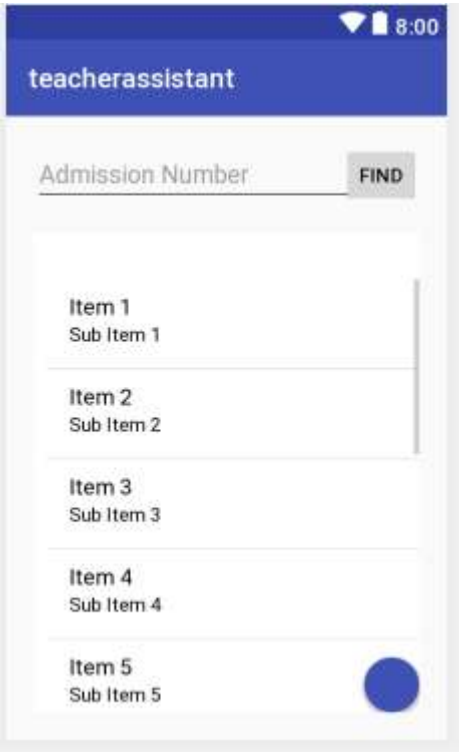
Cgpa calculation



Chatting application



Add student


8:00
teacherassistant
Admission Number
FIND
Item 1
Sub Item 1
Item 2
Sub Item 2
Item 3
Sub Item 3
Item 4
Sub Item 4
Item 5
Sub Item 5

Result view

8:00
teacherassistant
Your SGPA
With Percentage

Code for login module

```
<?xml version="1.0" encoding="utf-8"?>
<android.support.constraint.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context="com.example.dell.teacherassistant.MainActivity">

    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <EditText
        android:id="@+id/etname"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginBottom="8dp"
        android:layout_marginEnd="8dp"
        android:layout_marginStart="8dp"
        android:layout_marginTop="8dp"
        android:ems="10"
        android:hint="name"
        android:inputType="textPersonName"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.503"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.24" />

    <EditText
        android:id="@+id/etpassword"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginBottom="8dp"
        android:layout_marginEnd="8dp"
        android:layout_marginStart="8dp"
        android:layout_marginTop="8dp"
        android:ems="10"
        android:hint="password"
        android:inputType="textPassword"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.562"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/etname"
        app:layout_constraintVertical_bias="0.216" />

    <Button
        android:id="@+id/btnLogin"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginBottom="8dp"
        android:layout_marginEnd="8dp"
```

```
            android:layout_marginStart="8dp"
            android:layout_marginTop="8dp"
            android:text="Login"
            app:layout_constraintBottom_toBottomOf="parent"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toBottomOf="@+id/etpassword"
            app:layout_constraintVertical_bias="0.272" />

        <TextView
            android:id="@+id/tvinfo"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_marginBottom="8dp"
            android:layout_marginEnd="8dp"
            android:layout_marginStart="8dp"
            android:layout_marginTop="8dp"
            android:text="No of attempts left :"
            app:layout_constraintBottom_toBottomOf="parent"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toBottomOf="@+id/txtbtn" />

        <TextView
            android:id="@+id/tvRegister"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_marginBottom="8dp"
            android:layout_marginEnd="8dp"
            android:layout_marginStart="8dp"
            android:layout_marginTop="8dp"
            android:text="Newuser? Signup?"
            android:textSize="22sp"
            app:layout_constraintBottom_toBottomOf="@+id/tvinfo"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toBottomOf="@+id/btnLogin" />

    </android.support.constraint.ConstraintLayout>
```

Code for registeration module

```
<?xml version="1.0" encoding="utf-8"?>
<android.support.constraint.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context="com.example.dell.teacherassistant.RegistrationActivity">

    <EditText
        android:id="@+id/etUserName"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginBottom="8dp"
        android:layout_marginEnd="8dp"
        android:layout_marginStart="8dp"
        android:layout_marginTop="8dp"
        android:ems="10"
        android:inputType="textPersonName"
```

```
        android:text="Name"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.581"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.111" />

    <EditText
        android:id="@+id/etUserEmail"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginBottom="8dp"
        android:layout_marginEnd="8dp"
        android:layout_marginStart="8dp"
        android:layout_marginTop="8dp"
        android:ems="10"
        android:inputType="textEmailAddress"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.581"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/etUserName"
        app:layout_constraintVertical_bias="0.101" />

    <EditText
        android:id="@+id/etUserPassword"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginBottom="8dp"
        android:layout_marginEnd="8dp"
        android:layout_marginStart="8dp"
        android:layout_marginTop="8dp"
        android:ems="10"
        android:inputType="textPassword"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.581"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/etUserEmail"
        app:layout_constraintVertical_bias="0.121" />

    <Button
        android:id="@+id/btnRegister"
        android:layout_width="84dp"
        android:layout_height="wrap_content"
        android:layout_marginBottom="8dp"
        android:layout_marginEnd="8dp"
        android:layout_marginStart="8dp"
        android:layout_marginTop="8dp"
        android:text="Button"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.549"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/etUserPassword"
        app:layout_constraintVertical_bias="0.258" />

    <TextView
        android:id="@+id/tvUserLogin"
        android:layout_width="wrap_content"
        android:layout_height="42dp"
        android:layout_marginBottom="8dp"
```

```
        android:layout_marginEnd="8dp"
        android:layout_marginStart="8dp"
        android:layout_marginTop="8dp"
        android:text="Already signed in? Login"
        android:textSize="22sp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.623"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/btnRegister"
        app:layout_constraintVertical_bias="0.473" />
</android.support.constraint.ConstraintLayout>
```

Code for attendance module

```
<?xml version="1.0" encoding="utf-8"?>
<android.support.design.widget.CoordinatorLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context="com.example.dell.teacherassistant.SecondActivity">

    <android.support.design.widget.AppBarLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:theme="@style/AppTheme.AppBarOverlay">

        <android.support.v7.widget.Toolbar
            android:id="@+id/toolbar"
            android:layout_width="match_parent"
            android:layout_height="?attr/actionBarSize"
            android:background="?attr/colorPrimary"
            app:popupTheme="@style/AppTheme.PopupOverlay" />

    </android.support.design.widget.AppBarLayout>

    <include
        android:id="@+id/bttn"
        layout="@layout/content_second"
        android:layout_height="7dp"
        android:visibility="visible"
        tools:layout_editor_absoluteY="560dp" />

    <android.support.design.widget.FloatingActionButton
        android:id="@+id/fab"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_gravity="bottom|end"
        android:layout_margin="@dimen/fab_margin"
        app:srcCompat="@android:drawable/ic_dialog_email" />

</android.support.design.widget.CoordinatorLayout>
```

Code for cgpa calculation

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:paddingBottom="@dimen/activity_vertical_margin"
    android:paddingLeft="@dimen/activity_horizontal_margin"
    android:paddingRight="@dimen/activity_horizontal_margin"
    android:paddingTop="@dimen/activity_vertical_margin"
    tools:context=".cgpa_activity">
    <RelativeLayout
        android:layout_width="match_parent"
        android:background="#ffffff"
        android:layout_height="match_parent">

        <TextView
            android:id="@+id/textView2"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_centerHorizontal="true"
            android:layout_marginBottom="10dp"
            android:layout_marginTop="14dp"
            android:text="   ENTER YOUR SGPA  "
            android:textColor="#000000"
            android:textSize="20sp"/>


        <EditText
            android:id="@+id/c4"
            android:layout_width="70dp"
            android:layout_height="wrap_content"
            android:hint="S5"
            android:ems="10"
            android:inputType="numberDecimal"
            android:layout_below="@+id/c3"
            android:layout_alignLeft="@+id/c3"
            android:layout_alignStart="@+id/c3"
            android:layout_alignRight="@+id/c3"
            android:layout_alignEnd="@+id/c3" />

        <EditText
            android:id="@+id/c5"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:hint="S6"
            android:ems="10"
            android:inputType="numberDecimal"
            android:layout_below="@+id/c4"
            android:layout_alignLeft="@+id/c4"
            android:layout_alignStart="@+id/c4"
            android:layout_alignRight="@+id/c4"
            android:layout_alignEnd="@+id/c4" />

        <EditText
            android:id="@+id/c7"
            android:layout_width="70dp"
            android:layout_height="wrap_content"
            android:hint="S8"
            android:ems="10"
            android:inputType="numberDecimal"
            android:layout_below="@+id/c6"
            android:layout_alignLeft="@+id/c5"
            android:layout_alignStart="@+id/c5"
```

```
        android:layout_alignRight="@+id/c6"
        android:layout_alignEnd="@+id/c6" />

    <EditText
        android:id="@+id/c6"
        android:layout_width="70dp"
        android:layout_height="wrap_content"
        android:hint="S7"
        android:ems="10"
        android:inputType="numberDecimal"
        android:layout_below="@+id/c5"
        android:layout_alignRight="@+id/c5"
        android:layout_alignEnd="@+id/c5"
        android:layout_alignLeft="@+id/c5"
        android:layout_alignStart="@+id/c5" />

    <EditText
        android:id="@+id/c2"
        android:layout_width="70dp"
        android:layout_height="wrap_content"
        android:hint="S3"
        android:ems="10"
        android:inputType="numberDecimal"
        android:layout_below="@+id/c1"
        android:layout_alignLeft="@+id/c1"
        android:layout_alignStart="@+id/c1"
        android:layout_alignRight="@+id/c1"
        android:layout_alignEnd="@+id/c1" />

    <EditText
        android:id="@+id/c1"
        android:layout_width="70dp"
        android:layout_height="wrap_content"
        android:hint="S1S2"
        android:ems="10"
        android:inputType="numberDecimal"
        android:layout_below="@+id/textView2"
        android:layout_alignLeft="@+id/textView2"
        android:layout_alignStart="@+id/textView2"
        android:layout_alignRight="@+id/textView2"
        android:layout_alignEnd="@+id/textView2">

        <requestFocus />
    </EditText>

    <EditText
        android:id="@+id/c3"
        android:layout_width="70dp"
        android:layout_height="wrap_content"
        android:hint="S4"
        android:ems="10"
        android:inputType="numberDecimal"
        android:layout_below="@+id/c2"
        android:layout_alignLeft="@+id/c2"
        android:layout_alignStart="@+id/c2"
        android:layout_alignRight="@+id/c2"
        android:layout_alignEnd="@+id/c2">
    </EditText>

    <Button
        android:id="@+id/b3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
```

```
            android:text="FIND"
            android:textStyle="bold"
            android:textSize="16dp"
            android:background="@color/colorPrimaryDark"
            android:textColor="#ffffff"
            android:layout_below="@+id/c7"
            android:layout_centerHorizontal="true"
            android:layout_marginTop="30dp" />

    </RelativeLayout>
</RelativeLayout>
```

Code for adding students

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    android:paddingBottom="@dimen/activity_vertical_margin"
    android:paddingLeft="@dimen/activity_horizontal_margin"
    android:paddingRight="@dimen/activity_horizontal_margin"
    android:paddingTop="@dimen/activity_vertical_margin"
    tools:context=".scheduler">

    <ListView
        android:id="@+id/schedulerList"
        android:layout_width="match_parent"
        android:layout_height="match_parent">
    </ListView>

    <android.support.design.widget.FloatingActionButton
        android:id="@+id/fab_sch"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentBottom="true"
        android:layout_alignParentEnd="true"
        android:layout_alignParentRight="true"
        android:layout_gravity="bottom"
        android:clickable="true"
        android:elevation="5dp"
        android:src="@drawable/ic_content_add_circle"
        app:backgroundTint="@color/colorPrimary"
        app:borderWidth="0dp"  />
</RelativeLayout>
```

Java code for cgpa calculation

```
package com.delaroystudios.teacherassistant;

import android.os.Bundle;
import android.os.DropBoxManager;
import android.support.v7.app.AppCompatActivity;
import android.view.View;
import android.widget.EditText;
import android.widget.TextView;
import android.widget.Toast;

import java.math.BigDecimal;
```

```
import java.math.RoundingMode;

public class Result_activity extends AppCompatActivity {


    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_result_activity);

        EditText sgpa, percentage;

            sgpa = (EditText) findViewById(R.id.sgpa);
            percentage = (EditText) findViewById(R.id.percentage);
            TextView t = (TextView) findViewById(R.id.t);
            TextView t1 = (TextView) findViewById(R.id.t3);


            try {

                Bundle b = getIntent().getExtras();
                float final_sgpa = b.getFloat("final_sgpa");
                int flag = b.getInt("flag");
                float final_perc = b.getFloat("final_perc");

                if (flag == 0) {
                    t.setText("Your CGPA is ");
                    percentage.setVisibility(View.INVISIBLE);
                    t1.setVisibility(View.INVISIBLE);
                }

                BigDecimal bd = new BigDecimal(final_sgpa).setScale(2,
RoundingMode.HALF_EVEN);
                final_sgpa = bd.floatValue();


                BigDecimal bd1 = new BigDecimal(final_perc).setScale(2,
RoundingMode.HALF_EVEN);
                final_perc = bd1.floatValue();

                sgpa.setText(String.valueOf(final_sgpa));
                percentage.setText(String.valueOf(final_perc + "%"));
            }catch (Exception e)
            {
                Toast.makeText(getBaseContext(),"Exception
Occured",Toast.LENGTH_LONG).show();
            }
        }

    }
```

java code for login module

```
package com.example.dell.teacherassistant;

import android.content.Intent;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
```

```
public class MainActivity extends AppCompatActivity {


    private EditText Name;
    private EditText password;
    private TextView Info;
    private Button Login;
    private int counter = 5;
    private TextView userRegistration;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        Name = (EditText) findViewById(R.id.etname);
        password = (EditText) findViewById(R.id.etpassword);
        Info = (TextView) findViewById(R.id.tvinfo);
        Login = (Button) findViewById(R.id.btnLogin);
        userRegistration = (TextView)findViewById(R.id.tvRegister);

        Info.setText("no of attempts remaining :5");
        Login.setOnClickListener(new View.OnClickListener(){
            public void onClick(View view){
                validate(Name.getText().toString(),password.getText().toString());
            }
        });
        userRegistration.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                startActivity(new Intent(MainActivity.this,
RegistrationActivity.class));
            }
        });
    }


    private void validate(String userName,String userPassword){
        if((userName.equals("kone")) && (userPassword.equals("123456"))) {
            Intent intent = new Intent(MainActivity.this , SecondActivity.class);
            startActivity(intent);

        }else{
            counter--;

            Info.setText("No of attempts remaining" +String.valueOf(counter));
            if(counter == 0)
            {
                Login.setEnabled(false);
            }
        }
    }
}
```

java code for registeration module

```
package com.example.dell.teacherassistant;

import android.content.Intent;
import android.support.annotation.NonNull;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
```

```
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
import android.widget.Toast;

import com.google.android.gms.tasks.OnCompleteListener;
import com.google.android.gms.tasks.Task;
import com.google.firebase.auth.AuthResult;
import com.google.firebase.auth.FirebaseAuth;

public class RegistrationActivity extends AppCompatActivity {

    private EditText userName, userPassword, userEmail;
    private Button regButton;
    private TextView userLogin;
    private FirebaseAuth firebaseAuth;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_registration);
        setupUIViews();

        firebaseAuth = FirebaseAuth.getInstance();

        regButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                if (validate()) {
                    String user_email = userEmail.getText().toString().trim();
                    String user_password = userPassword.getText().toString().trim();

                    firebaseAuth.createUserWithEmailAndPassword(user_email,
user_password).addOnCompleteListener(new OnCompleteListener<AuthResult>() {
                        @Override
                        public void onComplete(@NonNull Task<AuthResult> task) {

                            if (task.isSuccessful()) {
                                Toast.makeText(RegistrationActivity.this,
"Registeration successfull", Toast.LENGTH_SHORT).show();
                                startActivity(new Intent(RegistrationActivity.this,
MainActivity.class));

                            } else {
                                Toast.makeText(RegistrationActivity.this,
"Registeration Failed", Toast.LENGTH_SHORT).show();

                            }
                        }
                    });
                }

            }

    });


        userLogin.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                startActivity(new Intent(RegistrationActivity.this,
MainActivity.class));
```

```
            }
        });
    }

    private void setupUIViews() {
        userName = (EditText) findViewById(R.id.etUserName);
        userEmail = (EditText) findViewById(R.id.etUserEmail);
        userPassword = (EditText) findViewById(R.id.etUserPassword);
        regButton = (Button) findViewById(R.id.btnRegister);
        userLogin = (TextView) findViewById(R.id.tvUserLogin);
    }

    private Boolean validate() {
        Boolean result = false;

        String name = userName.getText().toString();
        String password = userPassword.getText().toString();
        String email = userEmail.getText().toString();

        if (name.isEmpty() || password.isEmpty() || email.isEmpty()) {
            Toast.makeText(this, "please enter all the details",
Toast.LENGTH_SHORT).show();
        } else {
            result = true;
        }
        return result;
    }
}
```

java code for cgpa activity

```
package com.delaroystudios.teacherassistant;

import android.content.Intent;
import android.os.Bundle;
import android.support.v7.app.AppCompatActivity;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
import android.widget.Toast;

public class cgpa_activity extends AppCompatActivity {

    EditText c1,c2,c3,c4,c5,c6,c7;
    Button b3;
    float sg1,sg2,sg3,sg4,sg5,sg6,sg7,cg;
    int g1=44,g2=28,g3=28,g4=28,g5=28,g6=28,g7=28;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_cgpa);
            c1=(EditText)findViewById(R.id.c1);
            c2=(EditText)findViewById(R.id.c2);
            c3=(EditText)findViewById(R.id.c3);
            c4=(EditText)findViewById(R.id.c4);
            c5=(EditText)findViewById(R.id.c5);
            c6=(EditText)findViewById(R.id.c6);
            c7=(EditText)findViewById(R.id.c7);
```

```
            b3=(Button)findViewById(R.id.b3);
//              TextView t=(TextView)findViewById(R.id.tv);
//              t.setVisibility(View.INVISIBLE);


            b3.setOnClickListener(new View.OnClickListener() {

                @Override
                public void onClick(View v) {

                    sg1=read(c1);
                    sg2=read(c2);
                    sg3=read(c3);
                    sg4=read(c4);
                    sg5=read(c5);
                    sg6=read(c6);
                    sg7=read(c7);

                    if(sg1==0)
                        g1=0;

                    if(sg2==0)
                        g2=0;

                    if(sg3==0)
                        g3=0;

                    if(sg4==0)
                        g4=0;

                    if(sg5==0)
                        g5=0;

                    if(sg6==0)
                        g6=0;

                    if(sg7==0)
                        g7=0;



cg=((sg1*g1)+(sg2*g2)+(sg3*g3)+(sg4*g4)+(sg5*g5)+(sg6*g6)+(sg7*g7))/(g1+g2+g3+g4+g5+g6
+g7);
                    if(sg1==0 && sg2==0 && sg3==0 && sg4==0 && sg5==0 && sg6==0 &&
sg7==0)
                        Toast.makeText(getApplicationContext(), "Insufficient Data ",
Toast.LENGTH_LONG).show();

                    else
if((sg1>10.0)||sg2>10.0||sg3>10.0||sg4>10.0||sg5>10.0||sg6>10.0||sg7>10.0   )
                    {
                        Toast.makeText(getApplicationContext(), " Invalid SGPA",
Toast.LENGTH_SHORT).show();
                    }

                    else
                    {

                        Intent i3=new Intent(getApplicationContext(),
Result_activity.class);
                        i3.putExtra("final_sgpa",cg);
                        i3.putExtra("flag", 0);
```

```
                    i3.putExtra("final_perc", 0);
                    startActivity(i3);

                }


                // TODO Auto-generated method stub

            }


        });

    }


    private float read(EditText c) {

        if(c.getText().toString().matches(""))
        {     return 0;

        }
        else
        {
            return (Float.valueOf(c.getText().toString()).floatValue());
        }

        // TODO Auto-generated method stub
    }

}
```

Conclusion

The attendance system through mobile devices is a very effective tool which can be used to a great extent. The system is portable and can be easily installed and used on any mobile phones supporting Android OS. The use of this system can result in a reduction of number of hours spent in feeding the attendance details in the server database. It also provides an interface which is easy to understand by the users and greatly helps in adapting to the use of this system.

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