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DEPARTMENT OF INFORMATION SCIENCE & ENGINEERING

Course – Mobile Application Development
Course Code – 20IS5PWMAD
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College Result Management

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DEPARTMENT OF INFORMATION SCIENCE & ENGINEERING

BMS COLLEGE OF ENGINEERING

(Autonomous College under VTU)

Bull Temple Road, Basavanagudi, Bangalore – 560019

C E R T I F I C A T E

This is to certify that the project entitled "**College Result Management**" is a bona-fide work carried out by by **Prateek Gummaraju**, **Samartha S and Shreya K Raj** bearing USN: **1BM19IS117**, **1BM19IS219** and **1BM19IS152** respectively, in partial fulfillment of the requirements for the V Semester degree in **Bachelor of Engineering in Information Science & Engineering** of **Visvesvaraya Technological University, Belgaum** as a part of for the **course Mobile Application Development, Course Code - 20IS5PWMAD** during academic year 2021-2022

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<u>ABSTRACT</u>

In this project we are trying to streamline the process of declaring Semester Results to students in a simple and secure manner. We will also be giving the students a feature to calculate their overall CGPA, and view their rank for the current semester. The application will contain an easy and intuitive UI, for the convenience of users. Secure databases will ensure that data is confidential and data loss will be very minimal to non-existent.

INTRODUCTION

We are attempting to simplify and secure the process of declaring Semester Results to students in this project. We will also provide students with the ability to calculate their total CGPA and evaluate their current semester rank. For the convenience of users, the application will have a simple and intuitive user interface. Data will be kept confidential

in a secure database, and data loss will be limited to non-existent. The application will be end to end and cater to both the institution and the students.

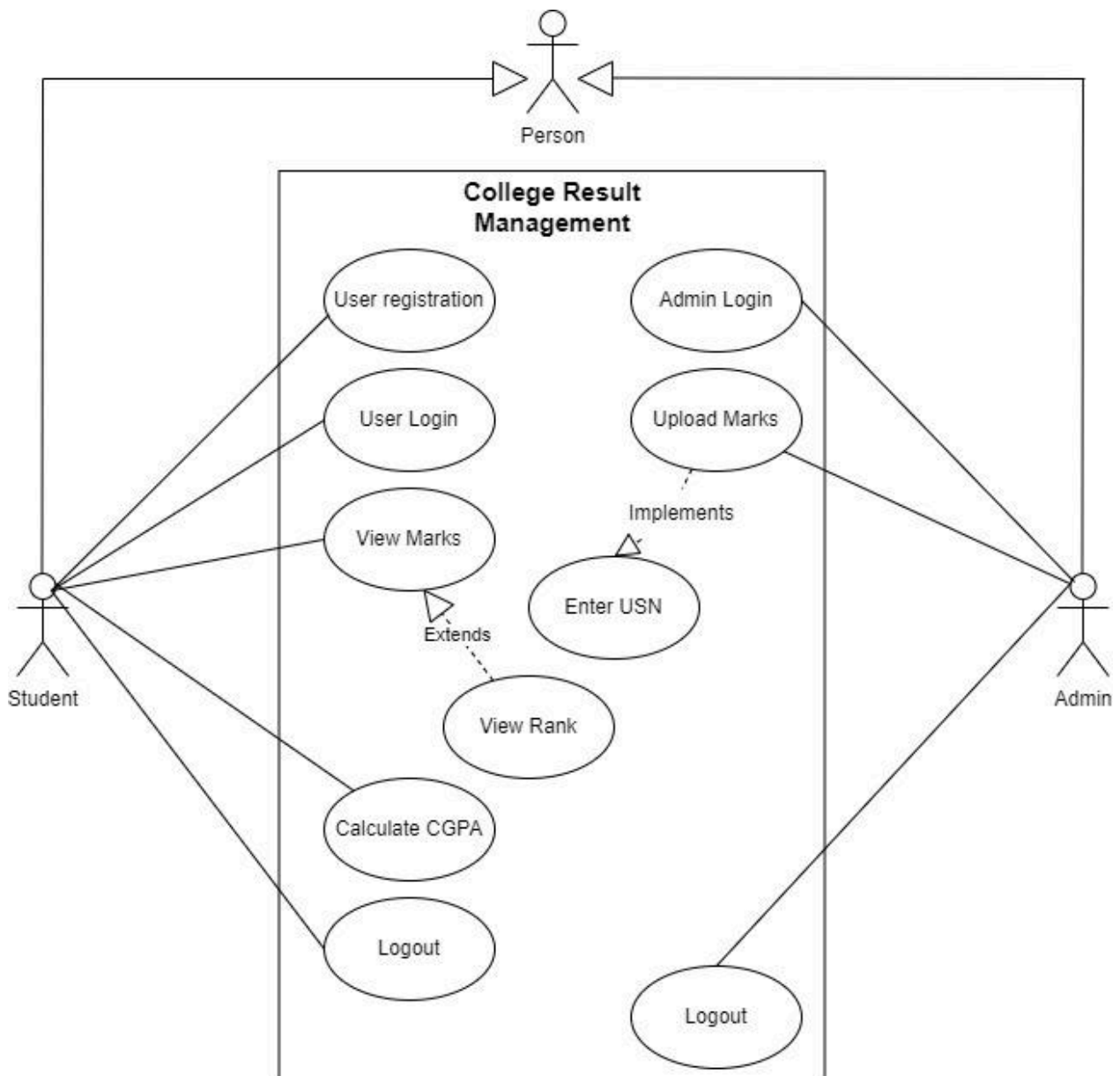# REQUIREMENT SPECIFICATION

Functional Requirements:

1. A registered student must login with appropriate credentials.

2. A new student has to sign up with necessary information, followed by logging in with the credentials set during registration.

3. Admin (members of COE office) should login with appropriate credentials.

4. Admin must be able to upload marks of students.

5. Students must be able to view their marks, grade and SGPA.

6. Students must have an option to calculate their current CGPA.

7. Students and Admins need to be able to Log Out.

Non Functional Requirements:

1. The app must be available for students and admins at all times [Performance].

2. Students must not be able to create admin accounts or login as admins [Security].

3. The app must be easy and intuitive to use for students and admins [Usability].

4. The app must deliver correct results to the correct students. There must not be any mix up [Reliability].

5. The app must not crash during times of heavy traffic [Reliability].

SYSTEM ARCHITECTURE

1. **Student Registration:** The students will have to register themselves on the application at the start of their college education. This will take in all the essential information such as full name, college email address, USN, branch, etc. This process is essential for the

college management to update results.

2. **Student Login:** Students have to login at the end of the semester (when the college declares results) to be able to view their scores. Students can login by entering their USN and password. Upon successful login, they will be redirected to the student home page.

3. **Admin Login:** Admins have to login to upload the marks of the students. They can login by entering their Unique ID and password. Upon successful login, they will be redirected to the admin home page.

4. **Student Home Page:** This page will display the details of the student and will give them options to check their current semester results (View Results) and to calculate their CGPA (Calculate CGPA).

5. **View Results:** This page will display all the courses of the student's latest semester along with the marks obtained in CIE (out of 50), SEE (out of 100), Total (out of 100), and the corresponding Grades(S to F). The students will also be able to view their SGPA. Clicking on View Rank will take them to the View Rank page.

6. **View Rank:** This page will display the department rank of the student for the current semester, based on their SGPA.

7. **Calculate CGPA:** The students will be able to enter their SGPAs and we will return their CGPA.

8. **Admin Home Page:** This page will display the details of the Admin (the person who will be updating the results of the students). They will have an option to upload the marks of individual students.

9. **Upload Marks Page:** The admin will first have to enter the USN of the student and they will then be redirected to a portal where they can upload the marks of the student.

IMPLEMENTATION

The application consists of 2 modules :- Student Module and Admin Module. The student module consists of Registration, Login, View Result, View Rank, Calculate CGPA and Logout. The admin module consists of Login, Upload Marks and Logout.

The application was coded using Java and the UI was designed in Android Studio. Room database was used for storage of Student and Admin details. In the database we have 3 tables :

- User :- Stores details of students such as Name, USN, Password, Semester, Branch, etc.

- Marks : - Stores marks of students and USN acts as the Primary key and Foreign Key.

- Admin :- Stores details of COE office bearers.

Here are a few code snippets:

Login (student login)

login.java

```java
package com.example.registration;

import androidx.appcompat.app.AppCompatActivity;
import androidx.room.Room;

import android.content.Intent;
import android.os.Bundle;
import android.text.TextUtils;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
import android.widget.Toast;

import com.example.registration.data.UserDAO;
import com.example.registration.data.UserDatabase;
import com.example.registration.model.User;

public class Login extends AppCompatActivity {
    EditText usn, pwd;
    Button login;
    TextView txt1, txt2;
    UserDAO db;
    UserDatabase database;
```

```java
@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_login);
    database= Room.databaseBuilder(this,UserDatabase.class,
"User").allowMainThreadQueries().build();
    db = database.getUserDAO();
    usn= findViewById(R.id.usn);
    pwd= findViewById(R.id.Password);
    login= findViewById(R.id.Login);
    txt1= findViewById(R.id.regop);
    txt2= findViewById(R.id.adminlog);
    login.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            int x;
            x= checkdata();
            if(x==1)
            {   String USN= usn.getText().toString().trim();
                String Password= pwd.getText().toString().trim();
                User user= db.getUser(USN, Password);
                db.getUser(USN,Password);
                if(user !=null) {
                    Intent intent = new Intent(Login.this, UserHomepage.class);
                    intent.putExtra("User", user);
                    startActivity(intent);
                    finish();
                }
                else
                {
                    Toast.makeText(getApplicationContext(),"Unregistered User or Incorrect
Details!", Toast.LENGTH_SHORT).show();
                }
            }
        }
    });
    txt1.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            Intent intent = new Intent(Login.this, MainActivity.class);
            startActivity(intent);
        }
    });
    txt2.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            Intent intent = new Intent(Login.this, AdminLogin.class);
            startActivity(intent);
        }
```

```java
        });
    }
    boolean isEmpty(EditText text) {
        CharSequence str = text.getText().toString();
        return TextUtils.isEmpty(str);
    }
    int checkdata()
    {   int x=1;
        if(isEmpty(usn))
        {
            usn.setError("USN is required!");
            x=0;
        }
        if(isEmpty(pwd))
        {
            pwd.setError("Password is required!");
            x=0;
        }
        return x;
    }
}
```

activity_login.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout 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=".Login"
    android:background="@drawable/bg"

    >

    <EditText
        android:id="@+id/usn"
        android:layout_width="300dp"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="300dp"
        android:layout_height="wrap_content"
        android:hint="USN"
        android:inputType="textPersonName"
        android:background="@drawable/custom"
        android:padding="10dp"
```

```xml
    />

<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Student Login"
    android:textColor="@color/white"
    android:layout_centerHorizontal="true"
    android:textSize="30sp"
    android:layout_marginTop="230dp"
    />

<EditText
    android:id="@+id/Password"
    android:layout_width="300dp"
    android:layout_centerHorizontal="true"
    android:layout_marginTop="360dp"
    android:layout_height="wrap_content"
    android:hint="Password"
    android:background="@drawable/custom"
    android:padding="10dp"
    android:inputType="textPassword"

    />

<ImageView
    android:layout_width="match_parent"
    android:layout_height="120dp"
    android:layout_marginTop="80dp"
    android:src="@drawable/bmsce" />

<Button
    android:id="@+id/Login"
    android:layout_width="300dp"
    android:layout_height="wrap_content"
    android:layout_centerHorizontal="true"
    android:layout_marginTop="440dp"
    android:padding="10dp"
    android:text="LOGIN"
    android:background="@drawable/loginbtn"
    android:textColor="@color/white"
    />

<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginLeft="123dp"
    android:layout_marginTop="520dp"
    android:text="New Student?"
    android:textColor="@color/white"
```

```xml
            android:textSize="16sp" />

    <TextView
        android:id="@+id/regop"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginLeft="230dp"
        android:layout_marginTop="520dp"
        android:text="Register now!"
        android:textColor="@color/burg"
        android:textSize="16sp"
        android:textStyle="bold" />

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginLeft="143dp"
        android:layout_marginTop="550dp"
        android:text="Admin?"
        android:textColor="@color/white"
        android:textSize="16sp"
        />

    <TextView
        android:id="@+id/adminlog"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginLeft="200dp"
        android:layout_marginTop="550dp"
        android:text="Login here!"
        android:textColor="@color/burg"
        android:textStyle="bold"
        android:textSize="16sp"
        />

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_centerHorizontal="true"
        android:textColor="@color/white"
        android:textSize="14sp"
        android:layout_marginTop="700dp"
        android:text="Copyright \u00A9 | All rights reserved"
        />

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_centerHorizontal="true"
        android:textColor="@color/white"
```

```xml
        android:textSize="14sp"
        android:layout_marginTop="720dp"
        android:text="Created by Prateek, Samartha &amp; Shreya"
        />
</RelativeLayout>
```

ViewResult.java

```java
package com.example.registration;

import androidx.appcompat.app.AppCompatActivity;
import androidx.room.Room;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.TextView;

import com.example.registration.data.MarksDAO;
import com.example.registration.data.MarksDatabase;
import com.example.registration.model.Marks;
import com.example.registration.model.User;

public class ViewResult extends AppCompatActivity {
    Button bck, rnk;
    User user;
    TextView Name, usn, stream;
    String U="";
    TextView Sub1, Sub2, Sub3, Sub4, Sub5, Sub6,c1,c2,c3,c4,c5,c6;
    TextView s1,s2,s3,s4,s5,s6,t1,t2,t3,t4,t5,t6,G1,G2,G3,G4,G5,G6;
    MarksDAO db;
    MarksDatabase database;
    double sgpa,sgpad;
    double gp1=0.0,gp2=0.0,gp3=0.0,gp4=0.0,gp5=0.0,gp6=0.0;
    int tot1,tot2,tot3,tot4,tot5,tot6;

    TextView SGP;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_view_result);
        user=(User)getIntent().getSerializableExtra("User");
        bck=(Button)findViewById(R.id.back);
        rnk=(Button)findViewById(R.id.rank);
        Name=(TextView)findViewById(R.id.name);
        database= Room.databaseBuilder(this,
```

```
MarksDatabase.class,"Marks").allowMainThreadQueries().build();

    db=database.getMarksDAO();
    SGP=findViewById(R.id.SGPA);
    usn=findViewById(R.id.usn);
    Sub1=findViewById(R.id.s1);
    Sub2=findViewById(R.id.s2);
    Sub3=findViewById(R.id.s3);
    Sub4=findViewById(R.id.s4);
    Sub5=findViewById(R.id.s5);
    Sub6=findViewById(R.id.s6);
    c1 = findViewById(R.id.c1m);
    c2 = findViewById(R.id.c2m);
    c3 = findViewById(R.id.c3m);
    c4 = findViewById(R.id.c4m);
    c5 = findViewById(R.id.c5m);
    c6 = findViewById(R.id.c6m);
    s1= findViewById(R.id.s1m);
    s2 = findViewById(R.id.s2m);
    s3 = findViewById(R.id.s3m);
    s4 = findViewById(R.id.s4m);
    s5 = findViewById(R.id.s5m);
    s6 = findViewById(R.id.s6m);
    t1 = findViewById(R.id.t1m);
    t2 = findViewById(R.id.t2m);
    t3 = findViewById(R.id.t3m);
    t4 = findViewById(R.id.t4m);
    t5 = findViewById(R.id.t5m);
    t6 = findViewById(R.id.t6m);
    G1 = findViewById(R.id.g1);
    G2 = findViewById(R.id.g2);
    G3 = findViewById(R.id.g3);
    G4 = findViewById(R.id.g4);
    G5 = findViewById(R.id.g5);
    G6 = findViewById(R.id.g6);




    U= user.getUSN();
    Character cur= U.charAt(5);
    if(cur=='C')
    {
        Sub2.setText("AI");
        Sub4.setText("USP");
        Sub5.setText("IoT/ADS");
        Sub6.setText("AA/ACA");

    }
    else if (cur=='M')
    {
```

```java
        Sub1.setText("CAD/CAM");
        Sub2.setText("OR");
        Sub3.setText("DoM");
        Sub4.setText("DoME-2");
        Sub5.setText("PE-1");
        Sub6.setText("PE-2");
    }
    else if (cur=='E')
    {
        Sub1.setText("CT-1");
        Sub2.setText("VLSI");
        Sub3.setText("AT");
        Sub4.setText("DSP");
        Sub5.setText("PE-1");
        Sub6.setText("PE-2");
    }


    stream=findViewById(R.id.branch);
    if(user != null)
    {
        Name.setText(user.getName());
        usn.setText(user.getUSN());
        stream.setText(user.getStream());
    }
    Marks marks= db.getMarks(U);
    if (marks!=null)
    {
    c1.setText(String.valueOf(marks.getSub1c()));
        c2.setText(String.valueOf(marks.getSub2c()));
        c3.setText(String.valueOf(marks.getSub3c()));
        c4.setText(String.valueOf(marks.getSub4c()));
        c5.setText(String.valueOf(marks.getSub5c()));
        c6.setText(String.valueOf(marks.getSub6c()));
        s1.setText(String.valueOf(marks.getSub1s()));
        s2.setText(String.valueOf(marks.getSub2s()));
        s3.setText(String.valueOf(marks.getSub3s()));
        s4.setText(String.valueOf(marks.getSub4s()));
        s5.setText(String.valueOf(marks.getSub5s()));
        s6.setText(String.valueOf(marks.getSub6s()));
        t1.setText(String.valueOf(marks.getSub1t()));
        t2.setText(String.valueOf(marks.getSub2t()));
        t3.setText(String.valueOf(marks.getSub3t()));
        t4.setText(String.valueOf(marks.getSub4t()));
        t5.setText(String.valueOf(marks.getSub5t()));
        t6.setText(String.valueOf(marks.getSub6t()));
        G1.setText(String.valueOf(getgrade(marks.getSub1t())));
        G2.setText(String.valueOf(getgrade(marks.getSub2t())));
        G3.setText(String.valueOf(getgrade(marks.getSub3t())));
        G4.setText(String.valueOf(getgrade(marks.getSub4t())));
        G5.setText(String.valueOf(getgrade(marks.getSub5t())));
```

```java
G6.setText(String.valueOf(getgrade(marks.getSub6t())));
tot1= marks.getSub1t();
if(tot1>=90)
    gp1=10.0;
else if (tot1>=80)
    gp1=9.0;
else if (tot1>=70)
    gp1=8.0;
else if (tot1>=60)
    gp1=7.0;
else if (tot1>=50)
    gp1=6.0;
else if (tot1>=40)
    gp1=5.0;
else
    gp1=0.0;
tot2=marks.getSub2t();
if(tot2>=90)
    gp2=10.0;
else if (tot2>=80)
    gp2=9.0;
else if (tot2>=70)
    gp2=8.0;
else if (tot2>=60)
    gp2=7.0;
else if (tot2>=50)
    gp2=6.0;
else if (tot2>=40)
    gp2=5.0;
else
    gp2=0.0;
tot3=marks.getSub3t();
if(tot3>=90)
    gp3=10.0;
else if (tot3>=80)
    gp3=9.0;
else if (tot3>=70)
    gp3=8.0;
else if (tot3>=60)
    gp3=7.0;
else if (tot3>=50)
    gp3=6.0;
else if (tot3>=40)
    gp3=5.0;
else
    gp3=0.0;
tot4=marks.getSub4t();
if(tot4>=90)
    gp4=10.0;
else if (tot4>=80)
```

```java
            gp4=9.0;
        else if (tot4>=70)
            gp4=8.0;
        else if (tot4>=60)
            gp4=7.0;
        else if (tot4>=50)
            gp4=6.0;
        else if (tot4>=40)
            gp4=5.0;
        else
            gp4=0.0;
        tot5=marks.getSub5t();
        if(tot5>=90)
            gp5=10.0;
        else if (tot5>=80)
            gp5=9.0;
        else if (tot5>=70)
            gp5=8.0;
        else if (tot5>=60)
            gp5=7.0;
        else if (tot5>=50)
            gp5=6.0;
        else if (tot5>=40)
            gp5=5.0;
        else
            gp5=0.0;
        tot6=marks.getSub6t();
        if(tot6>=90)
            gp6=10.0;
        else if (tot6>=80)
            gp6=9.0;
        else if (tot6>=70)
            gp6=8.0;
        else if (tot6>=60)
            gp6=7.0;
        else if (tot6>=50)
            gp6=6.0;
        else if (tot6>=40)
            gp6=5.0;
        else
            gp6=0.0;
        sgpa= (gp1+gp2+gp3+gp4+gp5+gp6)/6;
        sgpad = (double) (Math.round(sgpa*100.0)/100.0);
        SGP.setText(String.valueOf(sgpad));
    }


    bck.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        Intent intent= new Intent(ViewResult.this,UserHomepage.class);
```

```java
                intent.putExtra("User", user);
                startActivity(intent);
                finish();


            }
        });
    rnk.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {

                Intent intent= new Intent(ViewResult.this,ViewRank.class);
                intent.putExtra("User", user);
                startActivity(intent);
                finish();
            }
        });
    }

    String getgrade(int N)
    {
        String s="";
        if(N>=90)
            s = "S";

        else if(N>=80)
            s="A";
        else if(N>=70)
            s="B";
        else if(N>=60)
            s="C";
        else if(N>=50)
            s="D";
        else if(N>=40)
            s="E";
        else
            s="F";
        return s;
    }

}
```

activity_view_result.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout 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"
```

```xml
    android:layout_height="match_parent"
    tools:context=".ViewResult"
    android:background="@drawable/bg1">
    <LinearLayout
        android:id="@+id/t1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="horizontal"
        android:layout_marginTop="100dp">

    </LinearLayout>
    <LinearLayout
        android:id="@+id/t2"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="horizontal"
        android:layout_marginTop="100dp">

    </LinearLayout>
    <LinearLayout
        android:id="@+id/t3"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="horizontal"
        android:layout_marginTop="100dp">

    </LinearLayout>
    <LinearLayout
        android:id="@+id/t4"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="horizontal"
        android:layout_marginTop="100dp">

    </LinearLayout>

    <TableLayout
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_centerHorizontal="true"
        android:padding="10dp"
        android:layout_marginTop="200dp">

        <TableRow
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_marginTop="0dp"
            android:layout_marginEnd="0dp"
            >
```

```xml
<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_column="5"
    android:gravity="center"
    android:padding="10sp"
    android:text="Subject"
    android:textColor="@color/white"
    android:textStyle="bold"
    android:textSize="15sp" />

<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_column="5"
    android:gravity="center"
    android:padding="10sp"
    android:text="CIE"
    android:textColor="@color/white"
    android:textStyle="bold"
    android:textSize="15sp" />

<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_column="5"
    android:gravity="center_horizontal"
    android:padding="10sp"
    android:text="SEE"
    android:textColor="@color/white"
    android:textStyle="bold"
    android:textSize="15sp" />

<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_column="5"
    android:gravity="center_horizontal"
    android:padding="10sp"
    android:text="Total"
    android:textColor="@color/white"
    android:textStyle="bold"
    android:textSize="15sp" />

<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_column="5"
    android:gravity="center_horizontal"
    android:padding="10sp"
```

```xml
            android:text="Grade"
            android:textColor="@color/white"
            android:textStyle="bold"
            android:textSize="15sp" />


    </TableRow>

    <TableRow>

        <TextView
            android:id="@+id/s1"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_column="5"
            android:gravity="center"
            android:padding="10sp"
            android:text="CN-1"
            android:textColor="@color/white"
            android:textStyle="bold"
            android:textSize="15sp" />

        <TextView
            android:id="@+id/c1m"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_column="5"
            android:gravity="center"
            android:padding="10sp"
            android:text="0"
            android:textColor="@color/white"
            android:textSize="15sp" />


        <TextView
            android:id="@+id/s1m"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_column="5"
            android:gravity="center"
            android:padding="10sp"
            android:text="0"
            android:textColor="@color/white"
            android:textSize="15sp" />

        <TextView
            android:id="@+id/t1m"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_column="5"
```

```xml
        android:gravity="center"
        android:padding="10sp"
        android:text="0"
        android:textColor="@color/white"
        android:textSize="15sp" />

    <TextView
        android:id="@+id/g1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_column="5"
        android:gravity="center"
        android:padding="10sp"
        android:text=""
        android:textColor="@color/white"
        android:textSize="15sp" />
</TableRow>

<TableRow>

    <TextView
        android:id="@+id/s2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_column="5"
        android:gravity="center"
        android:padding="10sp"
        android:text="ML"
        android:textColor="@color/white"
        android:textStyle="bold"
        android:textSize="15sp" />

    <TextView
        android:id="@+id/c2m"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_column="5"
        android:gravity="center"
        android:padding="10sp"
        android:text="0"
        android:textColor="@color/white"
        android:textSize="15sp" />

    <TextView
        android:id="@+id/s2m"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_column="5"
        android:gravity="center"
        android:padding="10sp"
```

```xml
        android:text="0"
        android:textColor="@color/white"
        android:textSize="15sp" />

    <TextView
        android:id="@+id/t2m"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_column="5"
        android:gravity="center"
        android:padding="10sp"
        android:text="0"
        android:textColor="@color/white"
        android:textSize="15sp" />

    <TextView
        android:id="@+id/g2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_column="5"
        android:gravity="center"
        android:padding="10sp"
        android:text=""
        android:textColor="@color/white"
        android:textSize="15sp" />
</TableRow>

<TableRow>

    <TextView
        android:id="@+id/s3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_column="5"
        android:gravity="center"
        android:padding="10sp"
        android:text="SEO"
        android:textColor="@color/white"
        android:textStyle="bold"
        android:textSize="15sp" />

    <TextView
        android:id="@+id/c3m"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_column="5"
        android:gravity="center"
        android:padding="10sp"
        android:text="0"
        android:textColor="@color/white"
```

```xml
            android:textSize="15sp" />

        <TextView
            android:id="@+id/s3m"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_column="5"
            android:gravity="center"
            android:padding="10sp"
            android:text="0"
            android:textColor="@color/white"
            android:textSize="15sp" />

        <TextView
            android:id="@+id/t3m"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_column="5"
            android:gravity="center"
            android:padding="10sp"
            android:text="0"
            android:textColor="@color/white"
            android:textSize="15sp" />

        <TextView
            android:id="@+id/g3"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_column="5"
            android:gravity="center"
            android:padding="10sp"
            android:text=""
            android:textColor="@color/white"
            android:textSize="15sp" />
    </TableRow>

    <TableRow>

        <TextView
            android:id="@+id/s4"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_column="5"
            android:gravity="center"
            android:padding="10sp"
            android:text="AI/ADS"
            android:textColor="@color/white"
            android:textStyle="bold"
            android:textSize="15sp" />
```

```xml
        <TextView
            android:id="@+id/c4m"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_column="5"
            android:gravity="center"
            android:padding="10sp"
            android:text="0"
            android:textColor="@color/white"
            android:textSize="15sp" />

        <TextView
            android:id="@+id/s4m"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_column="5"
            android:gravity="center"
            android:padding="10sp"
            android:text="0"
            android:textColor="@color/white"
            android:textSize="15sp" />

        <TextView
            android:id="@+id/t4m"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_column="5"
            android:gravity="center"
            android:padding="10sp"
            android:text="0"
            android:textColor="@color/white"
            android:textSize="15sp" />

        <TextView
            android:id="@+id/g4"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_column="5"
            android:gravity="center"
            android:padding="10sp"
            android:text=""
            android:textColor="@color/white"
            android:textSize="15sp" />
    </TableRow>

    <TableRow>

        <TextView
            android:id="@+id/s5"
            android:layout_width="wrap_content"
```

```xml
        android:layout_height="wrap_content"
        android:layout_column="5"
        android:gravity="center"

        android:padding="10sp"
        android:text="DMG/APP"
        android:textColor="@color/white"
        android:textStyle="bold"
        android:textSize="15sp" />

    <TextView
        android:id="@+id/c5m"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_column="5"
        android:gravity="center"
        android:padding="10sp"
        android:text="0"
        android:textColor="@color/white"
        android:textSize="15sp" />

    <TextView
        android:id="@+id/s5m"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_column="5"
        android:gravity="center"
        android:padding="10sp"
        android:text="0"
        android:textColor="@color/white"
        android:textSize="15sp" />

    <TextView
        android:id="@+id/t5m"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_column="5"
        android:gravity="center"
        android:padding="10sp"
        android:text="0"
        android:textColor="@color/white"
        android:textSize="15sp" />

    <TextView
        android:id="@+id/g5"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_column="5"
        android:gravity="center"
        android:padding="10sp"
```

```xml
            android:text=""
            android:textColor="@color/white"
            android:textSize="15sp" />
    </TableRow>
    <TableRow>

        <TextView
            android:id="@+id/s6"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_column="5"
            android:gravity="center"
            android:padding="10sp"
            android:text="MAD"
            android:textColor="@color/white"
            android:textStyle="bold"
            android:textSize="15sp" />

        <TextView
            android:id="@+id/c6m"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_column="5"
            android:gravity="center"
            android:padding="10sp"
            android:text="0"
            android:textColor="@color/white"
            android:textSize="15sp" />

        <TextView
            android:id="@+id/s6m"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_column="5"
            android:gravity="center"
            android:padding="10sp"
            android:text="0"
            android:textColor="@color/white"
            android:textSize="15sp" />

        <TextView
            android:id="@+id/t6m"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_column="5"
            android:gravity="center"
            android:padding="10sp"
            android:text="0"
            android:textColor="@color/white"
```

```xml
            android:textSize="15sp" />

    <TextView
        android:id="@+id/g6"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_column="5"
        android:gravity="center"
        android:padding="10sp"
        android:text=""
        android:textColor="@color/white"
        android:textSize="15sp" />
</TableRow>


</TableLayout>

<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginLeft="20dp"
    android:layout_marginTop="60dp"
    android:text="Name: Rahul"
    android:textColor="@color/white"
    android:textSize="20sp"
    android:id="@+id/name"/>

<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="100dp"
    android:textSize="20sp"
    android:text="Semester: 5"
    android:textColor="@color/white"
    android:layout_marginLeft="20dp"
    />

<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="60dp"
    android:textSize="20sp"
    android:text="USN: 1BM19IS100"
    android:textColor="@color/white"
    android:layout_marginLeft="220dp"
    android:id="@+id/usn"
    />

<TextView
    android:layout_width="wrap_content"
```

```xml
    android:layout_height="wrap_content"
    android:layout_marginTop="100dp"
    android:textSize="20sp"
    android:text="Branch: ISE"
    android:textColor="@color/white"
    android:layout_marginLeft="220dp"
    android:id="@+id/branch"
    />



<TextView

    android:layout_width="wrap_content"
    android:layout_height="wrap_content"

    android:layout_marginTop="500dp"
    android:layout_marginLeft="140dp"
    android:text="SGPA :"
    android:textColor="@color/white"
    android:textStyle="bold"
    android:textSize="23dp" />
<TextView
    android:id="@+id/SGPA"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"

    android:layout_marginTop="500dp"
    android:layout_marginLeft="230dp"
    android:text="0.0"
    android:textColor="@color/white"
    android:textStyle="bold"
    android:textSize="23dp" />

<Button
    android:id="@+id/back"
    android:layout_width="118dp"
    android:layout_height="wrap_content"
    android:layout_alignParentEnd="true"
    android:layout_alignParentBottom="true"
    android:layout_marginRight="40dp"
    android:layout_marginBottom="22dp"
    android:text="Back"
    android:textColor="@color/white"
    android:background="@color/design_default_color_error"/>


<Button
    android:id="@+id/rank"
    android:layout_width="118dp"
```

```xml
    android:layout_height="wrap_content"
    android:layout_alignParentBottom="true"
    android:layout_marginLeft="40dp"
    android:layout_marginBottom="21dp"
    android:text="View Rank"
    android:textColor="@color/white"
    android:background="@drawable/loginbtn"
    />

</RelativeLayout>
```

RESULT

<u>CONCLUSION</u>

We were able to successfully create the application we set out to create by implementing all the functional and non functional requirements that were mentioned. The application caters to colleges, and the students and administration of the college will benefit from its robust and easy-to-use UI. They will also find all their important requirements to be met.

FUTURE ENHANCEMENTS

1. Add a view rank option which displays the students semester rank and allows them to compare their performance with their peers.

2. Add graphs to help students visualize their performance.

3. Expand the app to include all branches and students of all semesters.

4. Give students an option to put paper for re-evaluation from the app.

REFERENCES

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3. https://abhiandroid.com/

4. https://developer.android.com/training/data-storage/room