19BIT0292
Bhaumik Tandan
MOBILE APPLICATION DEVELOPMENT

ASSIGNMENT-2

Implement the following features/ functionalities in your program and upload your own exercises with output. Output should be Unique:

1. Splash Screen

2. Card View

3. Recycler view

CLICK HERE FOR GITHUBB LINK OF THE CODE

CLICK HERE FOR THE APK OF THE APPLICATION

ANDROID MANIFEST.xml

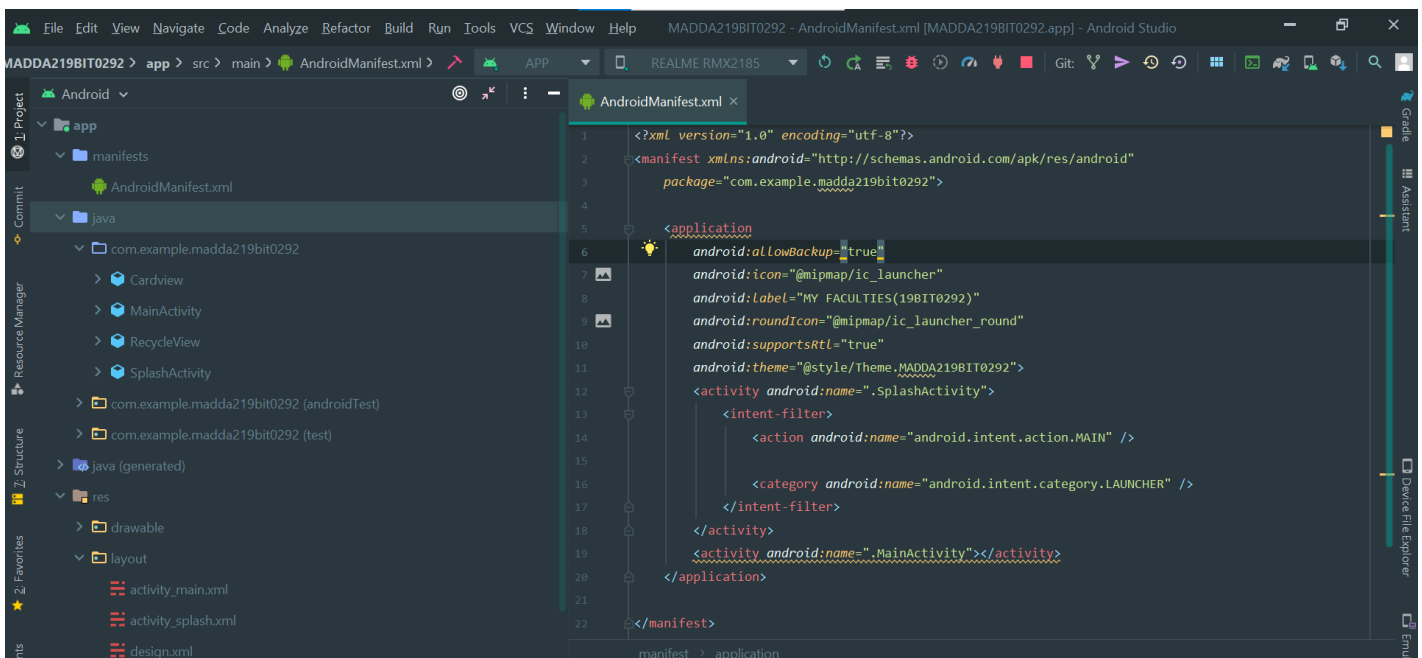## CODE

```xml
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.madda219bit0292">


    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="MY FACULTIES(19BIT0292)"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportsRtl="true"
        android:theme="@style/Theme.MADDA219BIT0292">
        <activity android:name=".SplashActivity">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />


                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
        <activity android:name=".MainActivity"></activity>
    </application>


</manifest>
```

SCREENSHOT

MainActivity.java

CODE

```java
package com.example.madda219bit0292;
import android.os.Bundle;
import androidx.appcompat.app.AppCompatActivity;
import androidx.recyclerview.widget.LinearLayoutManager;
import androidx.recyclerview.widget.RecyclerView;
import java.util.ArrayList;
import java.util.List;


public class MainActivity extends AppCompatActivity {
    RecyclerView r;
    LinearLayoutManager lm;
    List<Cardview> ul;
    RecycleView a;




    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        initData();
        initRecylerView();
    }




    private void initData() {
        ul = new ArrayList<>();
        ul.add(new Cardview(R.drawable.rg, "RAMYA.G", "ITE1006 - Theory of Computation",
            "F1+TF1"));
        ul.add(new Cardview(R.drawable.mgk, "MANGAYARKARASI R", "ITE1008 - Open Source
                programming", "C1+TC1"));
        ul.add(new Cardview(R.drawable.rc, "RAJESWARI C", "ITE1014 - Human Computer
            Interaction", "G1+TG1"));
        ul.add(new Cardview(R.drawable.sp, "SRINIVASAN P", "ITE1016 - Mobile Application
            Development", "B1+TB1"));
```

```java
            ul.add(new Cardview(R.drawable.dm, "DEEPA M", "ITE2001 - Computer Architecture and
                Organization", "A1+TA1"));
            ul.add(new Cardview(R.drawable.sk, "SENTHIL KUMAR P", "ITE2002 – Operating
                Systems", "B2+TB2"));
            ul.add(new Cardview(R.drawable.rn, "RANICHANDRA C", "ITE2006 - Data Mining
                Techniques", "D1+TD1"));
            ul.add(new Cardview(R.drawable.e, "ETHNUS (APT)", "STS2202 - Advanced Aptitude and
                Reasoning Skills",E1+TE1"));
    }




    private void initRecylerView() {
        r = findViewById(R.id.rv);
        lm = new LinearLayoutManager(this);
        lm.setOrientation(RecyclerView.VERTICAL);
        r.setLayoutManager(lm);
        a = new RecycleView(ul);
        r.setAdapter(a);
        a.notifyDataSetChanged();
    }

}
```
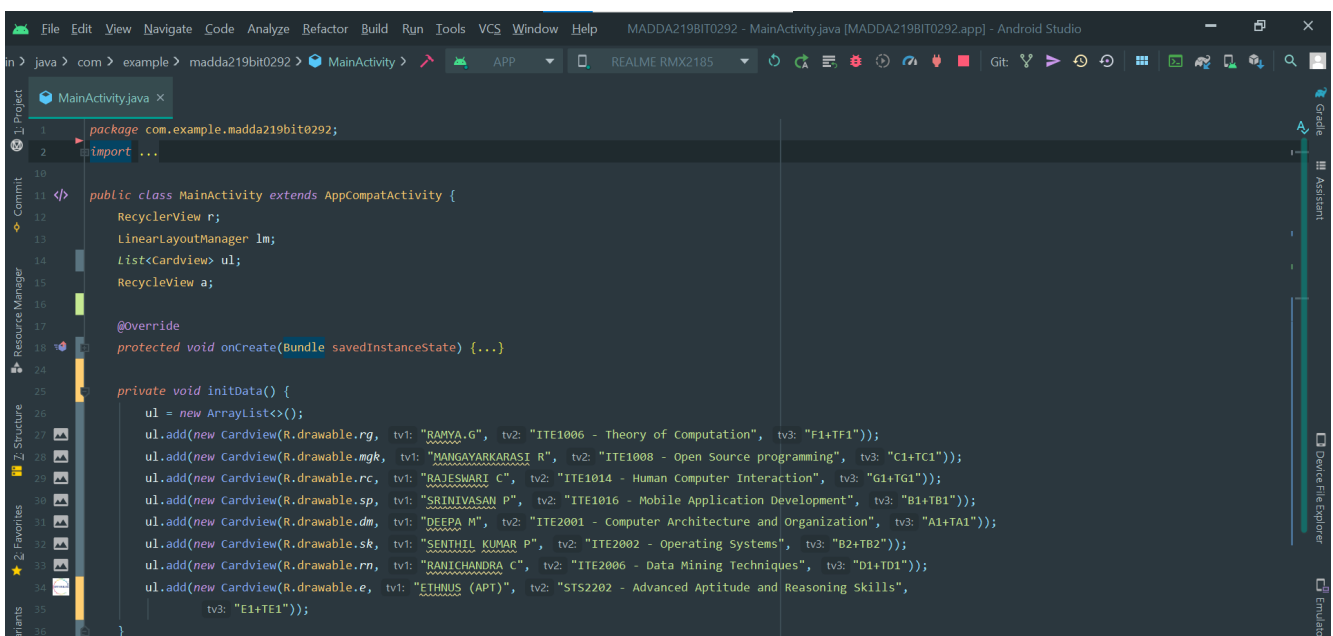
SCREENSHOT

activity_main.xml

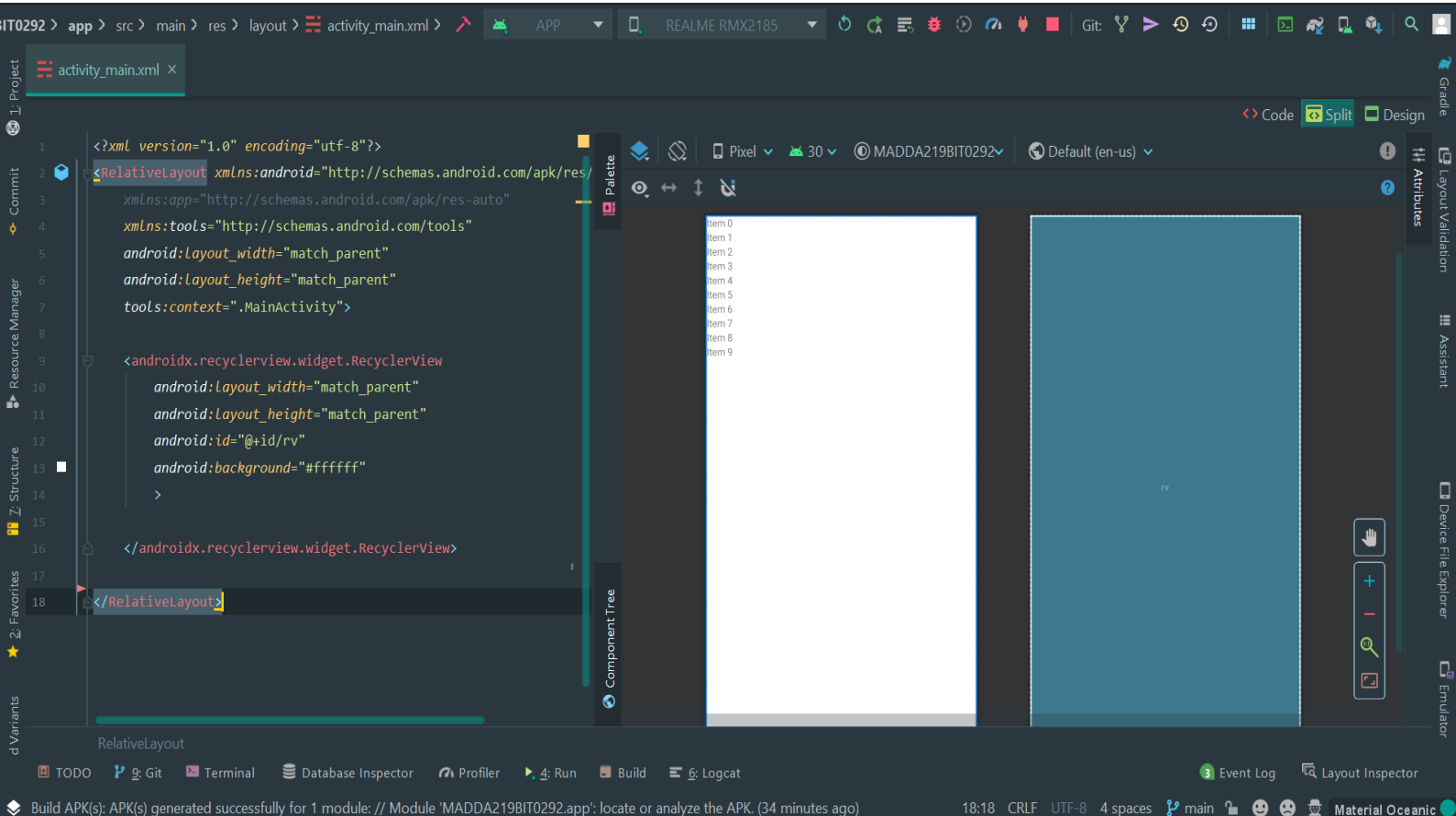## CODE

```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=".MainActivity">

    <androidx.recyclerview.widget.RecyclerView
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:id="@+id/rv"
        android:background="#ffffff"
        >

    </androidx.recyclerview.widget.RecyclerView>

</RelativeLayout>
```

SCREENSHOT

SplashActivity.java

CODE

```java
package com.example.madda219bit0292;


import android.content.Intent;
import android.os.Bundle;
import androidx.appcompat.app.AppCompatActivity;


public class SplashActivity extends AppCompatActivity {


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


        Thread t = new Thread() {
            public void run() {
                try {
                    sleep(4000);
                } catch (Exception e) {
                    e.printStackTrace();
                } finally {
                    Intent i = new Intent(SplashActivity.this, MainActivity.class);
                    startActivity(i);
                }
            }
        };


        t.start();


    }


}
```

SCREENSHOT

```java
package com.example.madda219bit0292;

import ...

public class SplashActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_splash);
        Thread t = new Thread() {
            public void run() {
                try {
                    sleep( millis: 4000);
                } catch (Exception e) {
                    e.printStackTrace();
                } finally {
                    Intent i = new Intent( packageContext: SplashActivity.this, MainActivity.class);
                    startActivity(i);
                }
            }
        };
        t.start();
    }
}
```
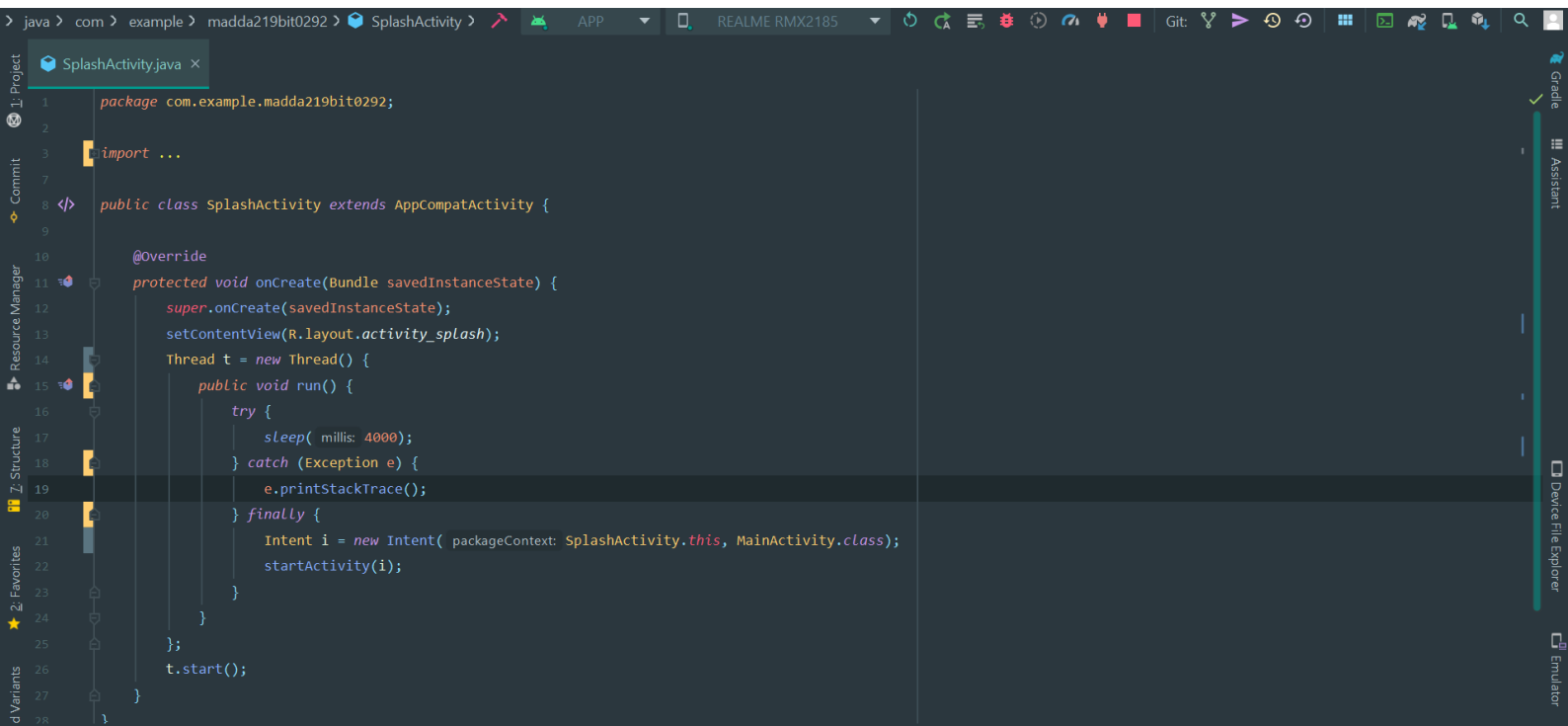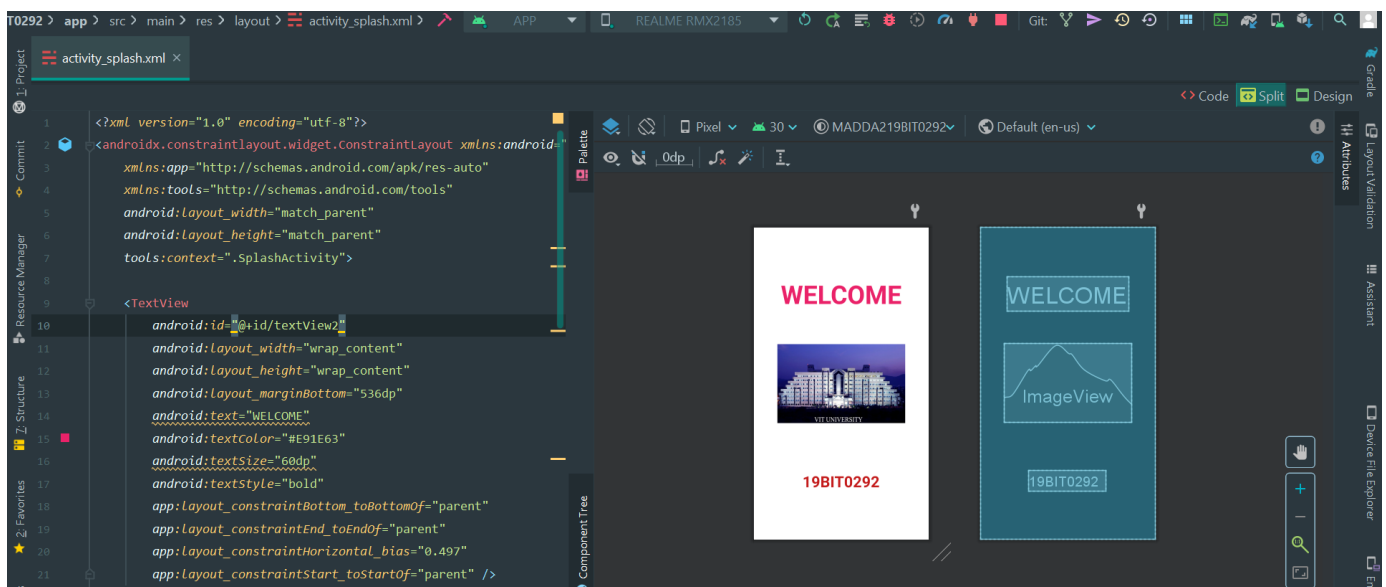
activity_splash.xml

CODE

```xml
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.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=".SplashActivity">

    <TextView
        android:id="@+id/textView2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginBottom="536dp"
        android:text="WELCOME"
        android:textColor="#E91E63"
        android:textSize="60dp"
        android:textStyle="bold"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
```

```xml
        app:layout_constraintHorizontal_bias="0.497"

        app:layout_constraintStart_toStartOf="parent" />


    <ImageView
        android:id="@+id/imageView2"

        android:layout_width="301dp"

        android:layout_height="185dp"

        app:layout_constraintBottom_toBottomOf="parent"

        app:layout_constraintEnd_toEndOf="parent"

        app:layout_constraintStart_toStartOf="parent"

        app:layout_constraintTop_toTopOf="parent"

        app:srcCompat="@drawable/vit" />


    <TextView
        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:layout_marginTop="297dp"

        android:text="19BIT0292"

        android:textColor="#C11919"

        android:textSize="36sp"

        android:textStyle="bold"

        app:layout_constraintBottom_toBottomOf="parent"

        app:layout_constraintEnd_toEndOf="parent"

        app:layout_constraintHorizontal_bias="0.497"

        app:layout_constraintStart_toStartOf="parent"

        app:layout_constraintTop_toTopOf="@+id/imageView2"

        app:layout_constraintVertical_bias="0.0" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

SCREENSHOT

design.xml

CODE

```xml
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    xmlns:app="http://schemas.android.com/apk/res-auto">



    <RelativeLayout
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:background="#ffffff">


        <androidx.cardview.widget.CardView


            android:id="@+id/image"
            android:layout_width="60dp"
            android:layout_height="wrap_content"
            android:layout_marginLeft="20dp"
            android:layout_marginTop="20dp"
            app:cardCornerRadius="60dp">


            <ImageView
                android:id="@+id/imageview2"
                android:layout_width="60dp"
                android:layout_height="60dp"
                android:scaleType="centerCrop"
                android:src="@mipmap/ic_launcher_round"></ImageView>


        </androidx.cardview.widget.CardView>



        <TextView
            android:id="@+id/tv1"
            android:layout_width="wrap_content"
            android:layout_height="30dp"
            android:layout_marginLeft="20dp"
            android:layout_marginTop="20dp"
```
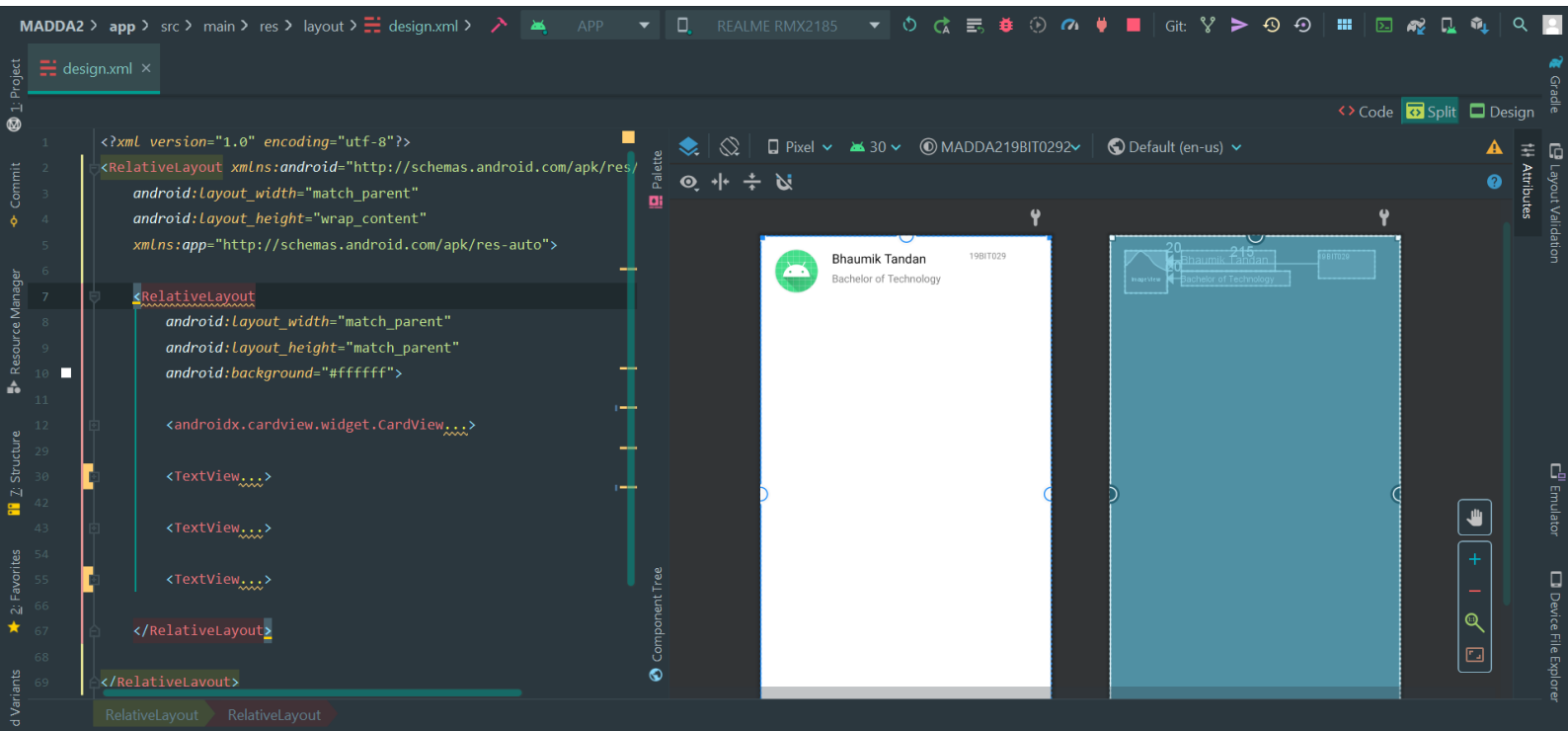
```xml
            android:layout_toRightOf="@id/image"

            android:text="Bhaumik Tandan"

            android:textColor="#000000"

            android:textSize="18sp">

        </TextView>



        <TextView

            android:id="@+id/tv2"

            android:layout_width="wrap_content"

            android:layout_height="wrap_content"

            android:layout_below="@+id/tv1"

            android:layout_marginLeft="20dp"

            android:layout_toRightOf="@id/image"

            android:text="Bachelor of Technology"

            android:textSize="15sp">

        </TextView>



        <TextView

            android:id="@+id/tv3"

            android:layout_width="80dp"

            android:layout_height="40dp"

            android:layout_marginLeft="215dp"

            android:layout_marginTop="20dp"

            android:layout_toRightOf="@id/image"

            android:text="19BIT029"

            android:textSize="12sp">

        </TextView>



    </RelativeLayout>

</RelativeLayout>
```

SCREENSHOT

Cardview.java

CODE

```java
package com.example.madda219bit0292;

public class Cardview
{
    private int imageView2;
    private  String tv1;
    private  String tv2;
    private  String tv3;

    public Cardview(int imageView2, String tv1, String tv2, String tv3) {
        this.imageView2 = imageView2;
        this.tv1 = tv1;
        this.tv2 = tv2;
        this.tv3 = tv3;
    }

    public int getImageView2()
    {
        return imageView2;
```
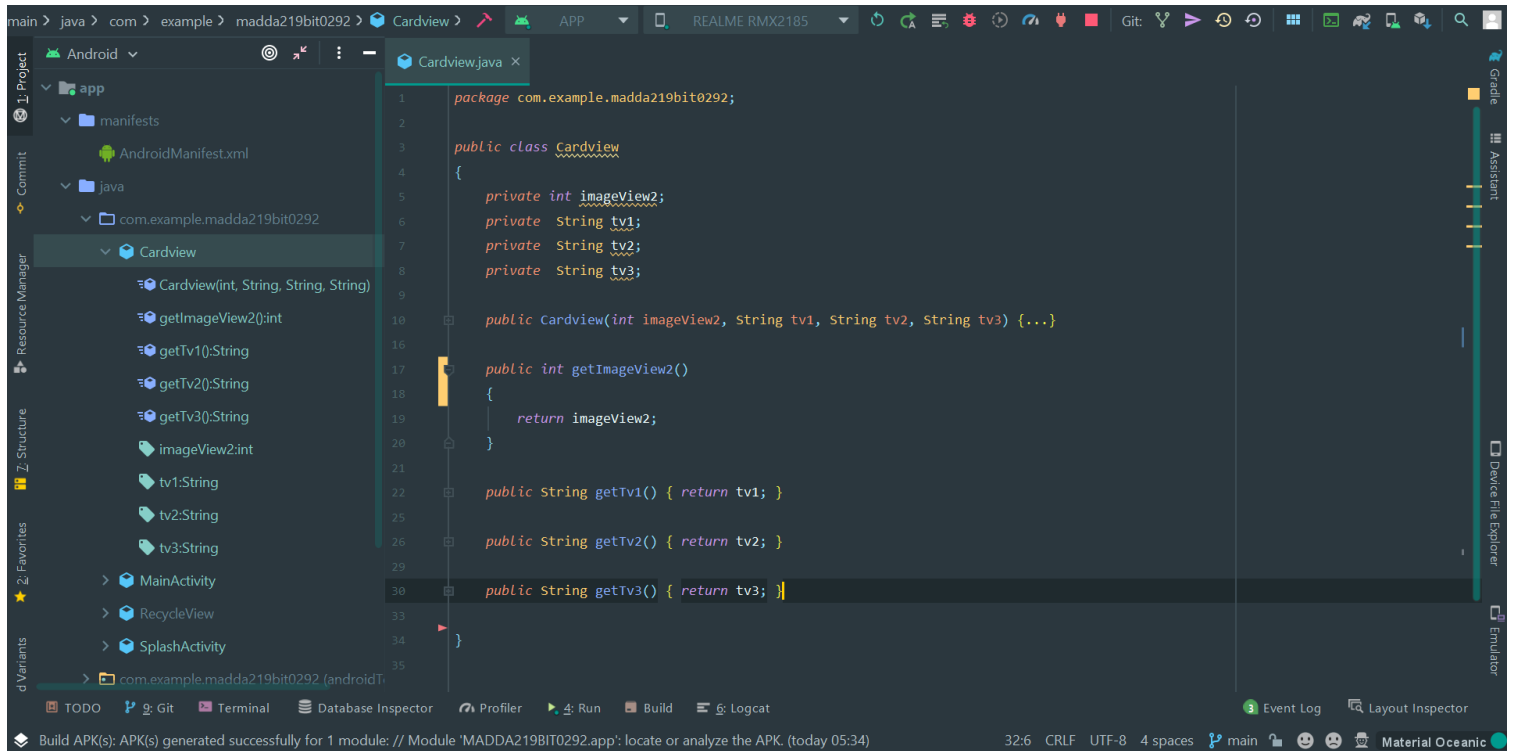
```java
    }


    public String getTv1() {

        return tv1;

    }



    public String getTv2() {

        return tv2;

    }



    public String getTv3() {

        return tv3;

    }



}
```

SCREENSHOT

RecycleView.java

CODE

```java
package com.example.madda219bit0292;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.ImageView;
import android.widget.TextView;


import androidx.annotation.NonNull;
import androidx.recyclerview.widget.RecyclerView;


import java.util.List;
public class RecycleView extends RecyclerView.Adapter<RecycleView.ViewHolder> {
    private List<Cardview> teacherList;
    public RecycleView(List<Cardview> teacherList) {
        this.teacherList = teacherList;
    }


    @NonNull
    @Override
    public RecycleView.ViewHolder onCreateViewHolder(@NonNull ViewGroup parent, int
viewType) {
        View view=
LayoutInflater.from(parent.getContext()).inflate(R.layout.design,parent,false);
        return new ViewHolder(view);
    }


    @Override
    public void onBindViewHolder(@NonNull RecycleView.ViewHolder holder, int
position) {
        int ph=teacherList.get(position).getImageView2();
        String n=teacherList.get(position).getTv1();
        String sh=teacherList.get(position).getTv2();
        String r=teacherList.get(position).getTv3();
        holder.setData(ph,n,sh,r);
    }


    @Override
    public int getItemCount() {
```

```java
            return teacherList.size();
    }
    public class ViewHolder extends RecyclerView.ViewHolder{
        private ImageView i;
        private TextView n;
        private TextView sh;
        private TextView r;
        public ViewHolder(@NonNull View iv) {
            super(iv);
            i = iv.findViewById(R.id.imageview2);
            n = iv.findViewById(R.id.tv1);
            sh =iv.findViewById(R.id.tv2);
            r =iv.findViewById(R.id.tv3);
        }
public void setData(int ik,String nk,String shk,String rk){


    i.setImageResource(ik);
    n.setText(nk);
    sh.setText(shk);
    r.setText(rk);
}
    }
}
```
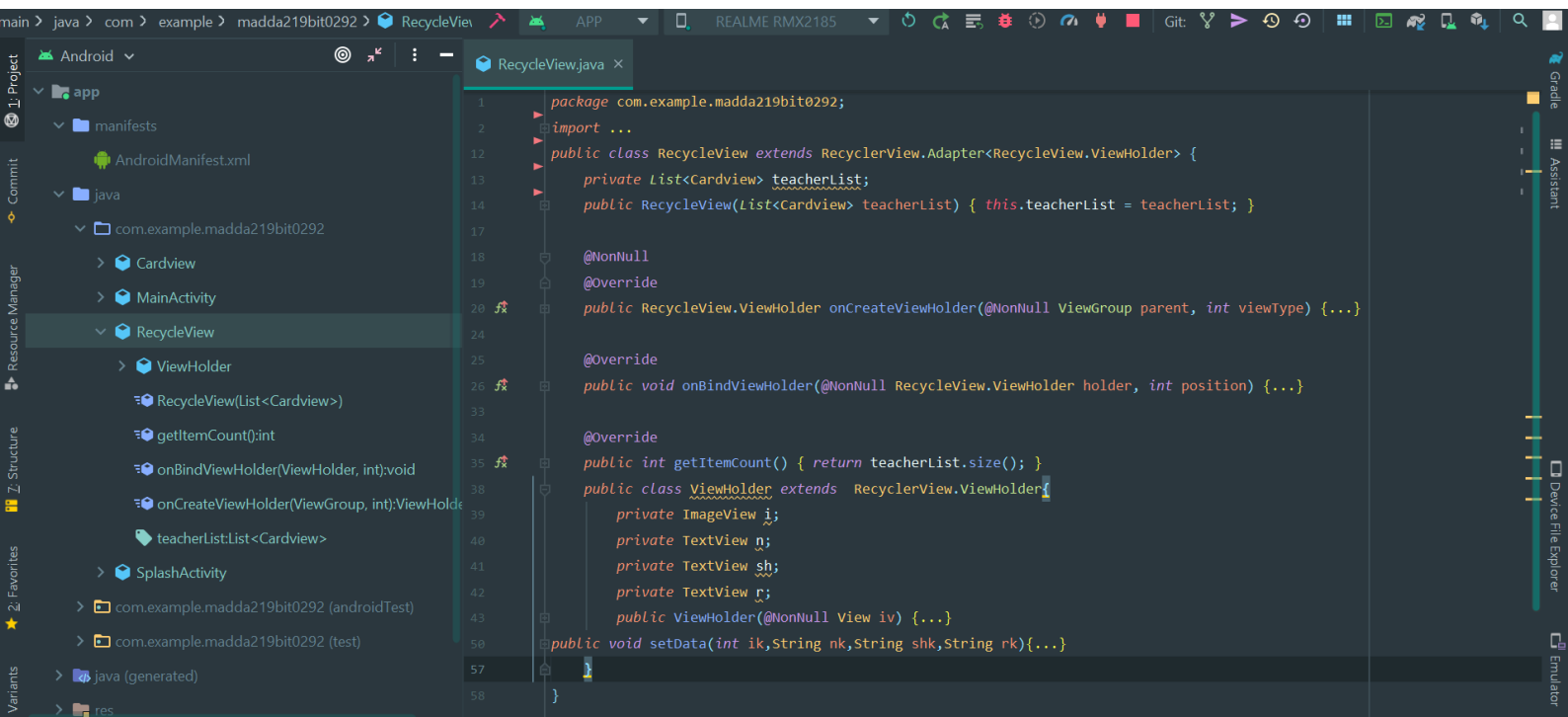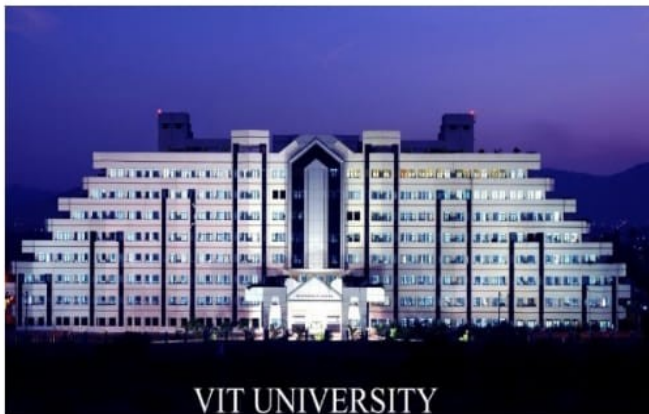
SCREENSHOT

OUTPUT

SPLASH SCREEN

MY FACULTIES(19BIT0292)

WELCOME

VIT UNIVERSITY

19BIT0292

RECYCLE VIEW HAVING CARD VIEW

MY FACULTIES(19BIT0292)

RAMYA.G — F1+TF1
ITE1006 - Theory of Computation

MANGAYARKARASI R — C1+TC1
ITE1008 - Open Source programming

RAJESWARI C — G1+TG1
ITE1014 - Human Computer Interaction

SRINIVASAN P — B1+TB1
ITE1016 - Mobile Application Development

DEEPA M — A1+TA1
ITE2001 - Computer Architecture and Organization

SENTHIL KUMAR P — B2+TB2
ITE2002 - Operating Systems

RANICHANDRA C — D1+TD1
ITE2006 - Data Mining Techniques

ETHNUS (APT) — E1+TE1
STS2202 - Advanced Aptitude and Reasoning Skills