Program 9.

Demonstrate ImageView and GridView

MainActivity.java

```
package com.example.prgm9;

import android.appcompat.app.AppCompatActivity;

import android.app.Activity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.GridView;

public class MainActivity extends Activity {
 @Override
 protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
 setContentView(R.layout.activity_main);

 GridView gridview = (GridView)
 findViewById(R.id.gridview);
 gridview.setAdapter(new ImageAdapter(this));

 gridview.setOnItemClickListener(new
AdapterView.OnItemClickListener() {
 public void onItemClick(AdapterView<?> parent, View v, int  position,
long id){
// Send intent to SingleViewActivity
 Intent i = new Intent(getApplicationContext(),
SingleViewActivity.class);
// Pass image index
 i.putExtra("id", position);
 startActivity(i);
 }
 });
 }
}
```

Activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<GridView xmlns:android="http://schemas.android.com/apk/res/android"
android:id="@+id/gridview"
 android:layout_width="fill_parent"
 android:layout_height="fill_parent"
 android:columnWidth="120dp"
 android:numColumns="3"
 android:verticalSpacing="10dp"
 android:horizontalSpacing="10dp"
 android:stretchMode="columnWidth"
 android:gravity="center"
 />
```

ImageAdapter.java

```
package com.example.prgm9;

import android.content.Context;
import android.view.View;
import android.view.ViewGroup;
import android.widget.BaseAdapter;
import android.widget.GridView;
import android.widget.ImageView;

class ImageAdapter extends BaseAdapter {
 private Context mContext;

 // Constructor
 public ImageAdapter(Context c) {
 mContext = c;
 }

 public int getCount() {
 return picIds.length;
 }

 public Object getItem(int position) {
 return null;
 }

 public long getItemId(int position) {

 return 0;
 }

 // create a new ImageView for each item referenced by the Adapter
public View getView(int position, View
 convertView, ViewGroup parent) {
 ImageView imageView;

 if (convertView == null) {
 imageView = new ImageView(mContext);
 imageView.setLayoutParams(new
 GridView.LayoutParams(85, 85));

 imageView.setScaleType(ImageView.ScaleType.CENTER_CROP);
imageView.setPadding(8, 8, 8, 8);
 } else {
 imageView = (ImageView) convertView;
 }

 imageView.setImageResource(picIds[position]);  return
imageView;

 }

 // Keep all Images in array
 public Integer[] picIds = {
 R.drawable.sample2,
 R.drawable.sample3,
 R.drawable.sample4,
 R.drawable.sample5,
 R.drawable.sample6,
 R.drawable.sample7,
 R.drawable.sample0,
```

```
 R.drawable.sample1,
 R.drawable.sample2,
 R.drawable.sample3,
 R.drawable.sample4,
 R.drawable.sample5,
 R.drawable.sample6,
 R.drawable.sample7,
 R.drawable.sample0,
 R.drawable.sample1,
 R.drawable.sample2,
 R.drawable.sample3,
 R.drawable.sample4,
 R.drawable.sample5,
 R.drawable.sample6,
 R.drawable.sample7,
 R.drawable.sample0, R.drawable.sample1  };
}
```

SingleViewActivity.java

```
package com.example.prgm9;

import androidx.appcompat.app.AppCompatActivity;

import android.app.Activity;
import android.content.Intent;
import android.os.Bundle;
import android.widget.ImageView;

public class SingleViewActivity extends AppCompatActivity {

 @Override
 protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
 setContentView(R.layout.activity_single_view);  //
Get intent data
 Intent i = getIntent();

// Selected image id
 int position = i.getExtras().getInt("id");  ImageAdapter
imageAdapter = new ImageAdapter(this);

 ImageView imageView = (ImageView)
 findViewById(R.id.SingleView);

 imageView.setImageResource(imageAdapter.picIds[position]);  }
}
```

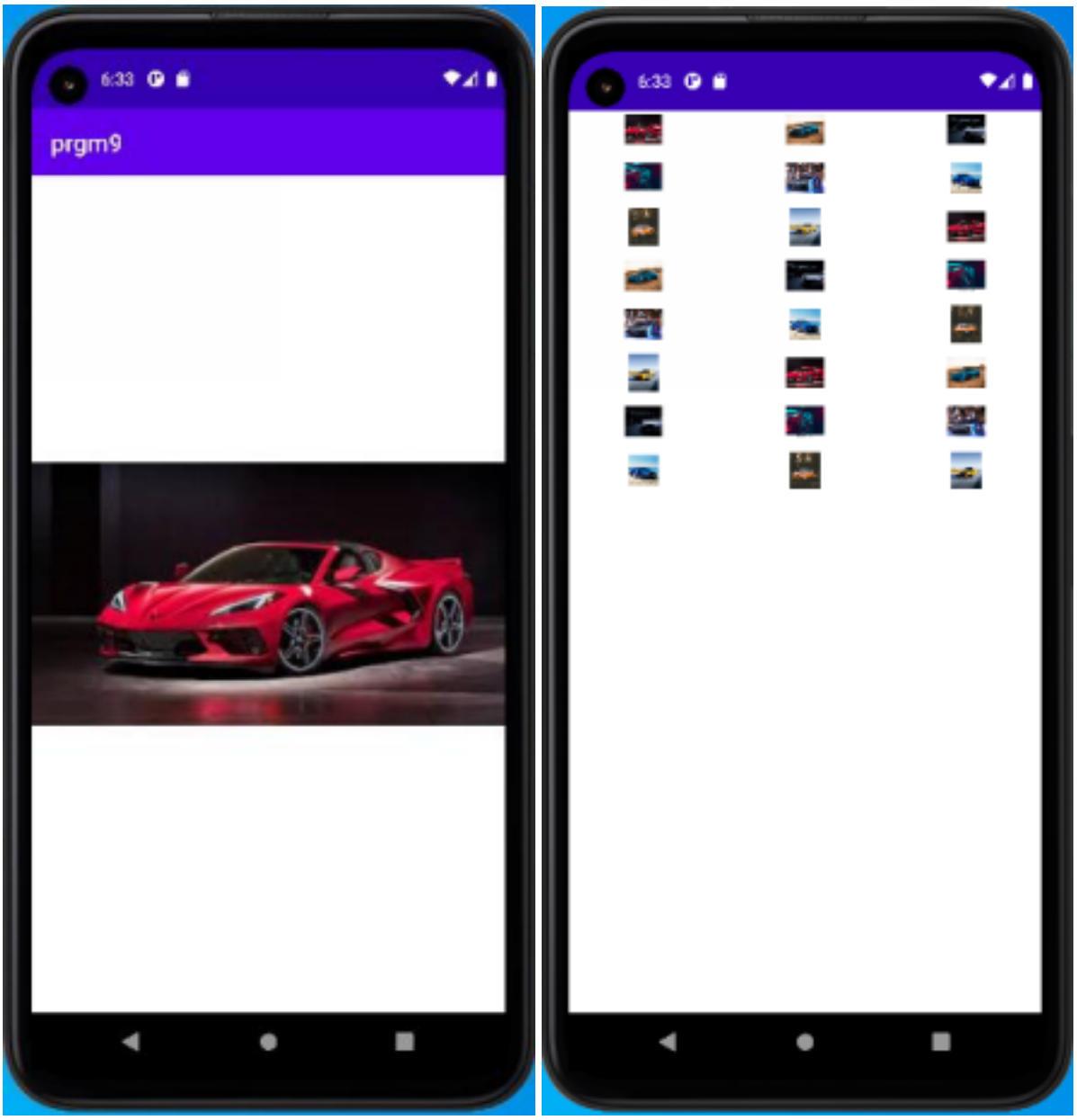
activity_single_view.xml

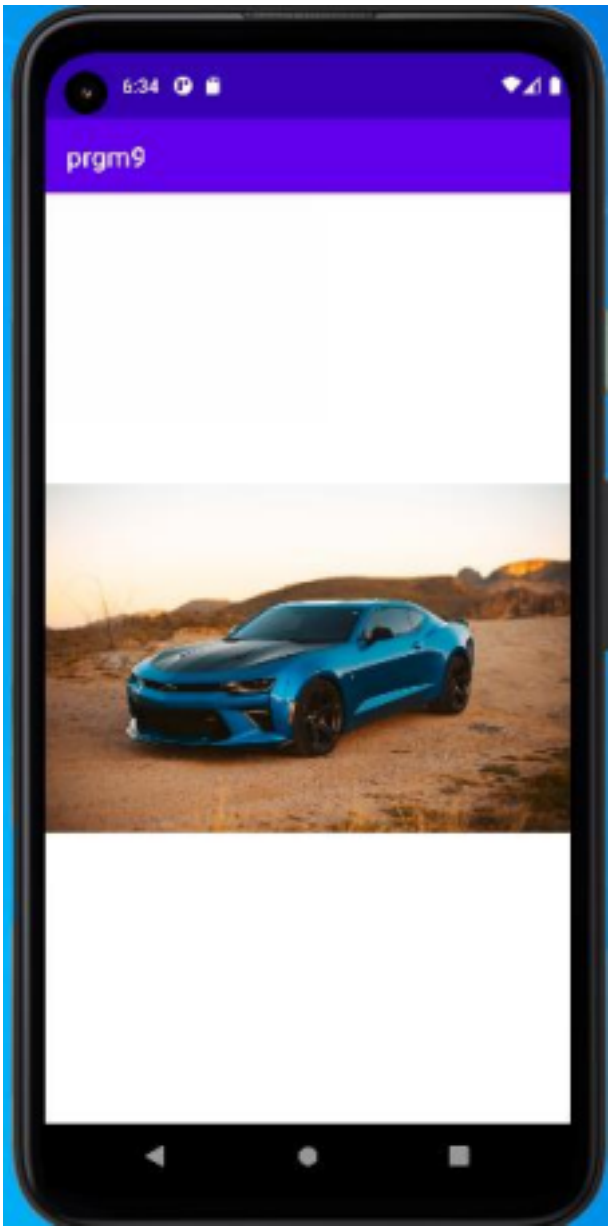
```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
 xmlns:android="http://schemas.android.com/apk/res/android"
android:layout_width="match_parent"
 android:layout_height="match_parent"
 android:orientation="vertical" >

 <ImageView android:id="@+id/SingleView"
 android:layout_width="fill_parent"
 android:layout_height="fill_parent"/>

</LinearLayout>
```

OUTPUT :




6:34
prgm9