Program 9. Demonstrate ImageView and GridView

<u>Main_activity.java</u>

package com.example.gridview2;

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 toSingleViewActivity3 of 9
        Intent i = new Intent(getApplicationContext(), SingleView.class);
        i.putExtra("id", position);
        startActivity(i);
            }


        });
```

```
    }
}
```

Activity_main.xml

```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"
    />
```

SingleView.java

```java
package com.example.gridview2;
import android.app.Activity;
import android.content.Intent;
import android.os.Bundle;
import android.widget.ImageView;

public class SingleView extends Activity {
    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.single_view);
```

```java
// Get intent data

    Intent i = getIntent();


// Selected image id

    int position = i.getExtras().getInt("id");

    ImageAdapter imageAdapter = new

        ImageAdapter(this);


    //9 of 9


    ImageView imageView = (ImageView)

        findViewById(R.id.SingleView);


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

  }
}
```

Single_view.xml

```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>
```

```java
package com.example.gridview2;

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) {


    //5 of 9


    return 0;
```

```java
        }

        // 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(120, 120));

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

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

            //6 of 9

        }

        // Keep all Images in array
        public Integer[] picIds = {
```

```java
            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,


        // 7 of 9
            R.drawable.sample0,

            R.drawable.sample1
    };
}
```