Program : - Create an android application to demonstrate ImageView and GridView.

CODE :

Main activity.java

```java
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>
```

ImageAdapter.java

```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 = {
```

```
        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
    };
}
```

SCREENSHOT