

Program 9

Demonstrate ImageView and GridView

MainActivity.java

```
package com.example.prgm9;

import androidx.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 :



