

## Program 8.

### Create an android application to demonstrate GridView

#### MainActivity.java

```
package com.example.prgm8;

import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.app.Activity;
import android.view.Menu;
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));
    }
}
```

#### 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.prgm8;

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  
    };  
}
```

**OUTPUT :**

