

Program 8. Create an android application to demonstrate GridView

Main activity.java

```
package com.example.gridview;

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.gridview;
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(185, 185));
```

```
        imageView.setScaleType(ImageView.ScaleType.CENTER_CROP);  
        imageView.setPadding(15, 15, 15, 15);  
    }
```

```
    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.sample6, R.drawable.sample1  
};  
}
```

Output:

