Program 8. Create an android application to demonstrate GidView.

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="4"
    android:verticalSpacing="10dp"
    android:horizontalSpacing="10dp"
    android:stretchMode="columnWidth"
    android:gravity="center"
    />
```

MainActivity.java

```
package com.example.imageadaptor;
import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.app.Activity;
import android.view.Menu;
import android.view.View;
import android.widget.GridView;

public class MainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        GridView gridview = (GridView)
                findViewById(R.id.gridview);
        gridview.setAdapter(new imageadaptor(this));
    }

}
```

imageadaptor.java

```
package com.example.imageadaptor;
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 imageadaptor extends BaseAdapter {
    private Context mContext;
    // Constructor
    public imageadaptor(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(200, 150));

            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.a,
            R.drawable.b,
            R.drawable.c,
            R.drawable.d,
            R.drawable.e,
            R.drawable.f,
            R.drawable.d,
            R.drawable.h,
            R.drawable.a,
            R.drawable.b,
            R.drawable.c,
            R.drawable.d,
            R.drawable.a,
            R.drawable.b,
            R.drawable.c,
            R.drawable.d,
            R.drawable.e,
            R.drawable.f,
            R.drawable.d,
            R.drawable.h,
            R.drawable.a,
            R.drawable.b,
            R.drawable.c,
            R.drawable.d,

    };
}
```

Output