PROGRAM : demonstrate GridView

Program Code :

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"
    />
```

MainActivity.java

```java
package com.example.griddemo;
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));
    }
}
```

imageAdapter.java

```java
package com.example.griddemo;

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(250, 200));

            imageView.setScaleType(ImageView.ScaleType.CENTER_CROP);
            imageView.setPadding(8, 4, 2, 4);
        }
        else
        {
            imageView = (ImageView) convertView;
        }

        imageView.setImageResource(picIds[position]);
        return imageView;
```

```java
    }

    // Keep all Images in array
    public Integer[] picIds = {
        R.drawable.img,
        R.drawable.img_1,
        R.drawable.img_2,
        R.drawable.img_3,
        R.drawable.img_4,
        R.drawable.img_5,
        R.drawable.img_6,
        R.drawable.img_7,
        R.drawable.img_8,
        R.drawable.img_9,
        R.drawable.img_10,
        R.drawable.img_11,
        R.drawable.img_3,
        R.drawable.img_4,
        R.drawable.img_12,
        R.drawable.img_13,
        R.drawable.img_5,
        R.drawable.img_3,
        R.drawable.img_4,
        R.drawable.img_15,
        R.drawable.img_14,
        R.drawable.img_16,
        R.drawable.img_17,
        R.drawable.img_12,
        R.drawable.img_5,
        R.drawable.img_6,
        R.drawable.img_1

    };
}
```

OUTPUT: