**PROGRAM 8 - ADAPTER AND EXCEPTION HANDLING**

**activity\_main.xml**

<?xml version="1.0" encoding="utf-8"?>  
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:padding="16dp"  
 tools:context=".MainActivity">  
 <GridView  
 android:id="@+id/gridView"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:numColumns="2"  
 />  
</RelativeLayout>

**MainActivity.java**

package com.example.adapterdexception;  
import androidx.appcompat.app.AppCompatActivity;  
import android.os.Bundle;  
import android.view.View;  
import android.widget.AdapterView;  
import android.widget.ArrayAdapter;  
import android.widget.GridView;  
import android.widget.Toast;  
import java.util.ArrayList;  
import java.util.List;  
public class MainActivity extends AppCompatActivity {  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
 GridView gridView = findViewById(R.id.*gridView*);  
 final List<String> data = fetchData();  
 ArrayAdapter<String> adapter = new ArrayAdapter<>(this,  
 android.R.layout.*simple\_list\_item\_1*, data);  
 gridView.setAdapter(adapter);  
 gridView.setOnItemClickListener(new AdapterView.OnItemClickListener() {  
 public void onItemClick(AdapterView<?> parent, View view, int position, long id) {  
 try {  
 String item = data.get(position);  
 Toast.*makeText*(MainActivity.this, "Clicked: " + item,  
 Toast.*LENGTH\_SHORT*).show();  
 } catch (IndexOutOfBoundsException e) {  
 e.printStackTrace();  
 Toast.*makeText*(MainActivity.this, "Item not found", Toast.*LENGTH\_SHORT*).show();  
 }  
 }  
 });  
 }  
 private List<String> fetchData() {  
 List<String> data = new ArrayList<>();  
 data.add("Item 1");  
 data.add("Item 2");  
 data.add("Item 3");  
 data.add("Item 4");  
 return data;  
 }  
}

**OUTPUT**

