**Practical – 4**

Aim: Mobile application phase-I:

Demonstration of simple UI with user activity

- To develop an application by using list view and spinner view to list out some items on screen by selecting any of the item’s system display complete information about that item. Also show addition and deletion of the items from the spinner view.

*MainActivity.java file:*

package com.example.pratical\_4;  
  
import android.os.Bundle;  
import android.view.View;  
import android.widget.ArrayAdapter;  
import android.widget.Button;  
import android.widget.Spinner;  
import android.widget.TextView;  
import android.widget.Toast;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
import java.util.ArrayList;  
  
public class MainActivity extends AppCompatActivity {  
  
 private Button btnadd,btnrem;  
 private TextView txt;  
// private String[] country = {"India","Australia","Iran","Iraq"};  
 ArrayList<String> country = new ArrayList<String>();  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 btnadd = findViewById(R.id.*button*);  
 btnrem = findViewById(R.id.*button2*);  
 txt = findViewById(R.id.*edtCity*);  
 Spinner spi = findViewById(R.id.*spinner*);  
  
  
 country.add("India");  
 country.add("Australia");  
 country.add("Iraq");  
 country.add("Iran");  
 ArrayAdapter<String> adp = new ArrayAdapter<>(MainActivity.this, android.R.layout.*simple\_spinner\_dropdown\_item*, country);  
 adp.setDropDownViewResource(android.R.layout.*simple\_spinner\_dropdown\_item*);  
 spi.setAdapter(adp);  
  
 btnadd.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 String newCity = txt.getText().toString();  
 if(newCity.length()<=0){}  
 else{  
 Toast.*makeText*(MainActivity.this, "Android", Toast.*LENGTH\_SHORT*).show();  
 adp.add(newCity);  
 adp.notifyDataSetChanged();  
 }  
  
 }  
 });  
 btnrem.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 String newCity = txt.getText().toString();  
 if(newCity.length()<=0){}  
 else{  
 adp.remove(newCity);  
 adp.notifyDataSetChanged();  
 }  
  
 }  
 });  
 }  
}

*activity\_main.xml file:*

<?xml version="1.0" encoding="utf-8"?>  
<androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".MainActivity">  
  
 <TextView  
 android:id="@+id/textView"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="@string/select\_country"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.133" />  
  
 <Spinner  
 android:id="@+id/spinner"  
 android:layout\_width="251dp"  
 android:layout\_height="48dp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.218"  
 tools:ignore="SpeakableTextPresentCheck" />  
  
 <Button  
 android:id="@+id/button"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginEnd="108dp"  
 android:layout\_marginBottom="356dp"  
 android:text="@string/add"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toStartOf="@+id/button2"  
 app:layout\_constraintHorizontal\_bias="0.563"  
 app:layout\_constraintStart\_toStartOf="parent" />  
  
 <Button  
 android:id="@+id/button2"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginEnd="40dp"  
 android:layout\_marginBottom="356dp"  
 android:text="@string/rem"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent" />  
  
 <EditText  
 android:id="@+id/edtCity"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="30dp"  
 android:ems="10"  
 android:inputType="textPersonName"  
 android:minHeight="48dp"  
 android:hint="@string/name"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/spinner"  
 app:layout\_constraintVertical\_bias="0.069"  
 android:autofillHints="" />  
  
</androidx.constraintlayout.widget.ConstraintLayout>

*AndroidManifest.xml*

<?xml version="1.0" encoding="utf-8"?>  
<manifest xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:tools="http://schemas.android.com/tools">  
  
 <application  
 android:allowBackup="true"  
 android:dataExtractionRules="@xml/data\_extraction\_rules"  
 android:fullBackupContent="@xml/backup\_rules"  
 android:icon="@mipmap/ic\_launcher"  
 android:label="@string/app\_name"  
 android:roundIcon="@mipmap/ic\_launcher\_round"  
 android:supportsRtl="true"  
 android:theme="@style/Theme.Pratical\_4"  
 tools:targetApi="31">  
 <activity  
 android:name=".MainActivity"  
 android:exported="true">  
 <intent-filter>  
 <action android:name="android.intent.action.MAIN" />  
  
 <category android:name="android.intent.category.LAUNCHER" />  
 </intent-filter>  
  
 <meta-data  
 android:name="android.app.lib\_name"  
 android:value="" />  
 </activity>  
 </application>  
  
</manifest>

*Screenshot:*

