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|  | **SUKKUR IBA UNIVERSITY**  MERIT – QUALITY – EXCELLENCE  Lab handout 10 | | | |  |
| Mobile Application Development (CSE-426), Fall 2022, BE-EE(CS)-VIII | | | | | |
| Name: Shakir Ali | | CMS ID#: 031-19-0009 | | Instructor: Dr. Abdul Aziz | |
| Section: A Lab group: NA | | Department: Electrical Engineering | | Marks obtained out of 100% | |
| **NOTE: Must follow submission instructions** | | |  | | |

**Understanding and using Listviews**

**Lab Exercise and Submission**

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| Exercise 1 |
| In the previously designed application using list views, now make use adapters to make it dynamic. |
| Screenshot of AVD output here: |
| Insert Activity code here:   |  | | --- | | **Drink.java**  package com.example.shakir\_lab10\_1;  import androidx.appcompat.app.AppCompatActivity;  import android.app.Activity; import android.os.Bundle; import android.widget.ImageView; import android.widget.TextView;  public class DrinkActivity extends AppCompatActivity {  public static final String *EXTRA\_DRINKID* = "drinkId";  @Override  protected void onCreate(Bundle savedInstanceState) {  super.onCreate(savedInstanceState);  setContentView(R.layout.*activity\_drink*);  *//Get the drink from the intent* int drinkId = (Integer)getIntent().getExtras().get(*EXTRA\_DRINKID*);  Drink drink = Drink.*drinks*[drinkId];  *//Populate the drink name* TextView name = (TextView)findViewById(R.id.*name*);  name.setText(drink.getName());  *//Populate the drink description* TextView description = (TextView)findViewById(R.id.*description*);  description.setText(drink.getDescription());  *//Populate the drink image* ImageView photo = (ImageView)findViewById(R.id.*photo*);  photo.setImageResource(drink.getImageResourceId());  photo.setContentDescription(drink.getName());  } } | | **DrinkCategoryActivity**.java  package com.example.shakir\_lab10\_1;  import androidx.appcompat.app.AppCompatActivity; import android.os.Bundle; import android.widget.ArrayAdapter; import android.widget.ListView; import android.view.View; import android.content.Intent; import android.widget.AdapterView;  public class DrinkCategoryActivity extends AppCompatActivity {    @Override  protected void onCreate(Bundle savedInstanceState) {  super.onCreate(savedInstanceState);  setContentView(R.layout.*activity\_drink\_category*);  ArrayAdapter<Drink> listAdapter = new ArrayAdapter<>(  this,  android.R.layout.*simple\_list\_item\_1*,  Drink.*drinks*);  ListView listDrinks = (ListView) findViewById(R.id.*list\_drinks*);  listDrinks.setAdapter(listAdapter);  *//Create the listener* AdapterView.OnItemClickListener itemClickListener =  new AdapterView.OnItemClickListener(){  public void onItemClick(AdapterView<?> listDrinks,  View itemView,  int position,  long id) {  *//Pass the drink the user clicks on to DrinkActivity* Intent intent = new Intent(DrinkCategoryActivity.this, DrinkActivity.class);  intent.putExtra(DrinkActivity.*EXTRA\_DRINKID*, (int) id);  startActivity(intent);  }  };  *//Assign the listener to the list view* listDrinks.setOnItemClickListener(itemClickListener);  } } | | **TopLevelActivity.java**  package com.example.shakir\_lab11\_1;  import androidx.appcompat.app.AppCompatActivity; import android.app.Activity; import android.os.Bundle; import android.content.Intent; import android.widget.AdapterView; import android.widget.ListView; import android.view.View;  public class TopLevelActivity extends AppCompatActivity {   @Override  protected void onCreate(Bundle savedInstanceState) {  super.onCreate(savedInstanceState);  setContentView(R.layout.*activity\_top\_level*);  *//Create an OnItemClickListener* AdapterView.OnItemClickListener itemClickListener =  new AdapterView.OnItemClickListener(){  public void onItemClick(AdapterView<?> listView,  View itemView,  int position,  long id) {  if (position == 0) {  Intent intent = new Intent(TopLevelActivity.this, DrinkCategoryActivity.class);  startActivity(intent);  }  }  };  *//Add the listener to the list view* ListView listView = (ListView) findViewById(R.id.*list\_options*);  listView.setOnItemClickListener(itemClickListener);  } } | |
| Insert XML code for layout here:   |  | | --- | | **activity\_top\_level.xml**  *<?*xml version="1.0" encoding="utf-8"*?>* <LinearLayout 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"  android:orientation="vertical"  tools:context=".TopLevelActivity">   <ImageView  android:id="@+id/imageView"  android:layout\_width="wrap\_content"  android:layout\_height="wrap\_content"  app:srcCompat="@drawable/starbuzz\_logo" />   <ListView  android:id="@+id/list\_options"  android:layout\_width="match\_parent"  android:layout\_height="wrap\_content"  android:entries="@array/options" >    </ListView>  </LinearLayout> | | **activity\_drink\_category.xml**  *<?*xml version="1.0" encoding="utf-8"*?>* <LinearLayout 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=".DrinkCategoryActivity">   <ListView  android:id="@+id/list\_drinks"  android:layout\_width="match\_parent"  android:layout\_height="wrap\_content" />  </LinearLayout> | | **activity\_drink.xml**  *<?*xml version="1.0" encoding="utf-8"*?>* <LinearLayout 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:orientation="vertical"  tools:context=".DrinkActivity" >  <ImageView  android:id="@+id/photo"  android:layout\_width="190dp"  android:layout\_height="190dp" />   <TextView  android:id="@+id/name"  android:layout\_width="wrap\_content"  android:layout\_height="wrap\_content" />   <TextView  android:id="@+id/description"  android:layout\_width="match\_parent"  android:layout\_height="wrap\_content" /> </LinearLayout> | |
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| **Insert String.xml File**  <resources>  <string name="app\_name">shakir\_Lab11\_1</string>   <string-array name="options">  <item>Drinks</item>  <item>Food</item>  <item>Stores</item>  </string-array>  </resources> |
| Insert Manifest code here:  *<?*xml version="1.0" encoding="utf-8"*?>* <manifest xmlns:android="http://schemas.android.com/apk/res/android"  xmlns:tools="http://schemas.android.com/tools"  package="com.example.shakir\_lab11\_1" >   <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.Shakir\_Lab11\_1"  tools:targetApi="31" >  <activity  android:name=".TopLevelActivity"  android:exported="true">  <intent-filter>  <action android:name="android.intent.action.MAIN" />   <category android:name="android.intent.category.LAUNCHER" />  </intent-filter>  </activity>   <activity  android:name=".DrinkCategoryActivity"  android:exported="false" />   </application>  </manifest> |