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|  | **SUKKUR IBA UNIVERSITY**  MERIT – QUALITY – EXCELLENCE  Lab handout 11 | | | |  |
| 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 adapters**

**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\_lab11\_1;  public class Drink {  private String name;  private String description;  private int imageResourceId;  *//drinks is an array of Drinks* public static final Drink[] *drinks* = {  new Drink("Latte", "A couple of espresso shots with steamed milk",  R.drawable.*latte*),  new Drink("Cappuccino", "Espresso, hot milk, and a steamed milk foam",  R.drawable.*cappuccino*),  new Drink("Filter", "Highest quality beans roasted and brewed fresh",  R.drawable.*filter*)  };  *//Each Drink has a name, description, and an image resource* private Drink(String name, String description, int imageResourceId) {  this.name = name;  this.description = description;  this.imageResourceId = imageResourceId;  }  public String getDescription() {  return description;  }  public String getName() {  return name;  }  public int getImageResourceId() {  return imageResourceId;  }  public String toString() {  return this.name;  } } | | **DrinkCategoryActivity**.java  package com.example.shakir\_lab11\_1;  import androidx.appcompat.app.AppCompatActivity; import android.os.Bundle; import android.widget.ArrayAdapter; import android.widget.ListView;  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);  } } | | **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> | |
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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> |