

## Lab handout 11

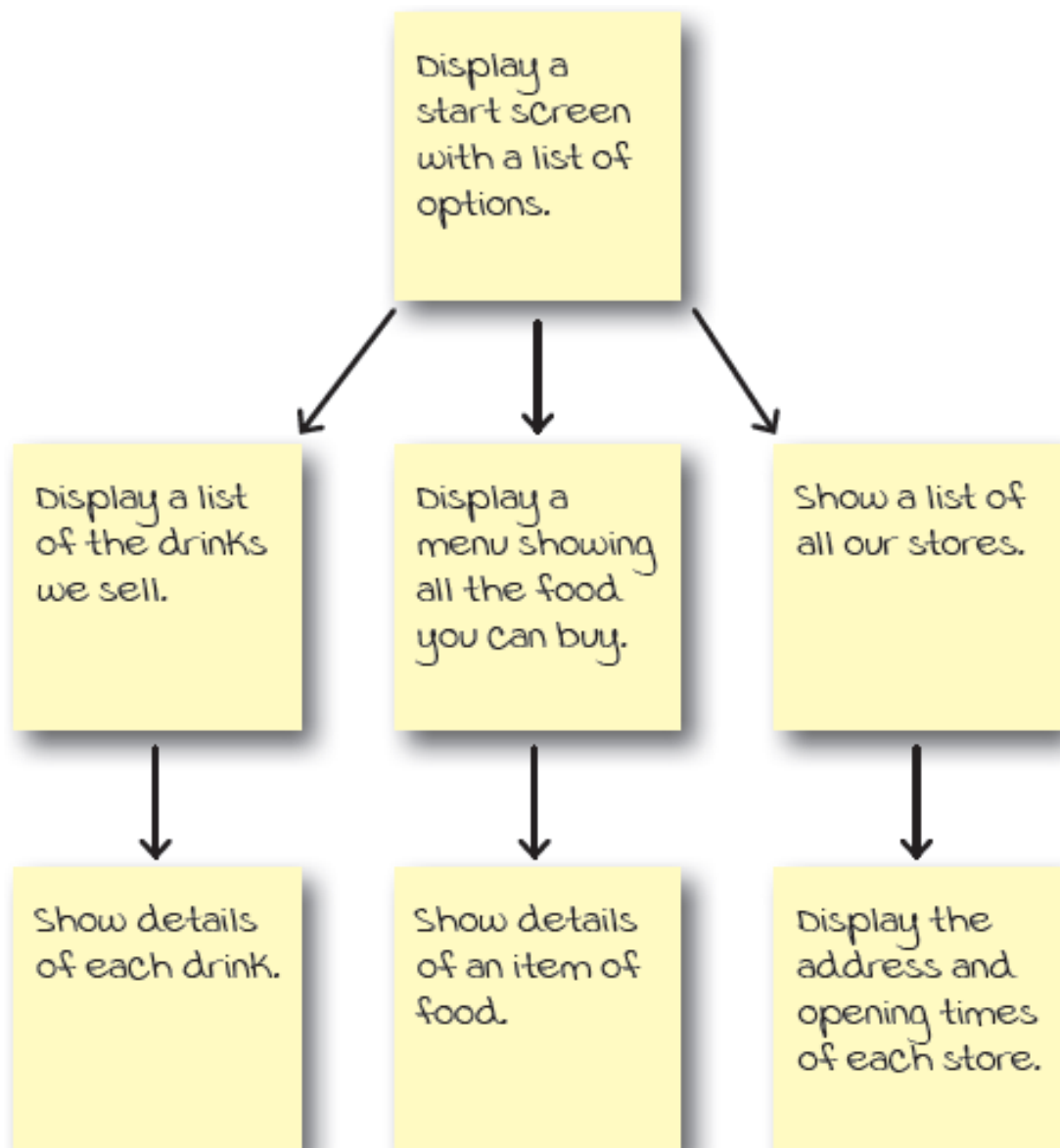
Mobile Application Development (CSE-426), Fall 2022, BE-EE(CS)-VIII			
Name: Shakir Ali	CMS ID#: 031-19-0009	Instructor: Dr. Abdul Aziz	
Section: A      Lab group: NA	Department: Electrical Engineering	Marks obtained	out of 100%
<b>NOTE: Must follow submission instructions</b>			

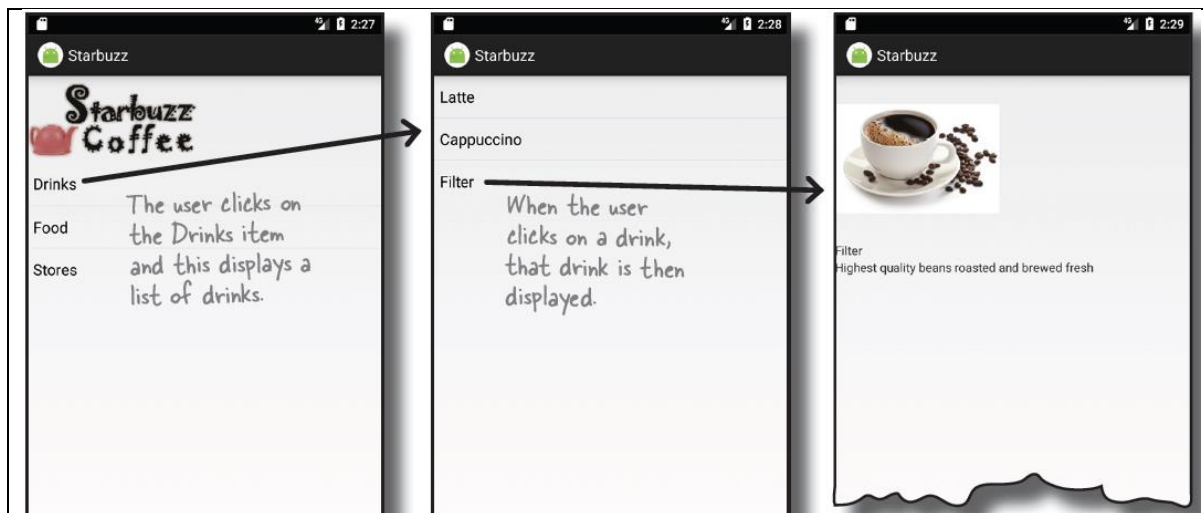
### Understanding and using adapters

#### Lab Exercise and Submission

##### 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>

```

### 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>

```