

Lab handout 10

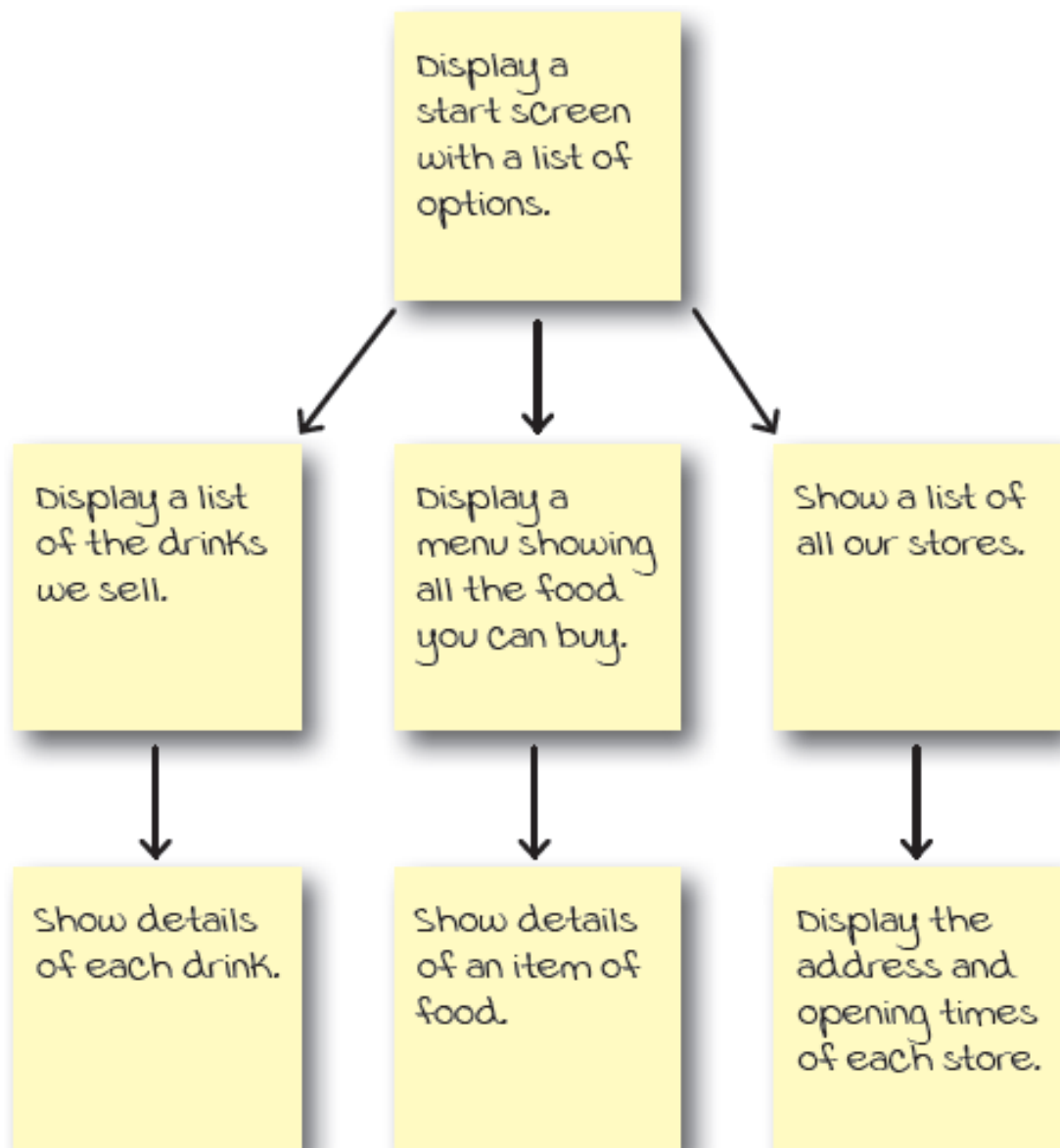
Mobile Application Development (CSE-426), Fall 2022, BE-EE(CS)-VIII			
Name: Shakir Ali	CMS ID#: 031-19-0009	Instructor: Dr. Abdul Aziz	
Section: A Lab group: NA	Department: Electrical Engineering	Marks obtained	out of 100%
NOTE: Must follow submission instructions			

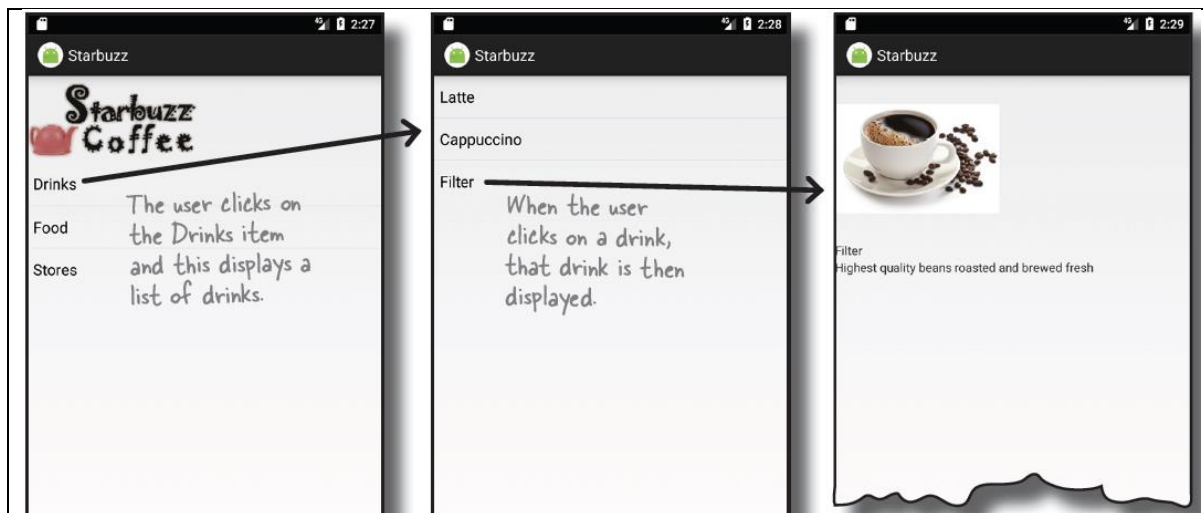
Understanding and using Listviews

Lab Exercise and Submission

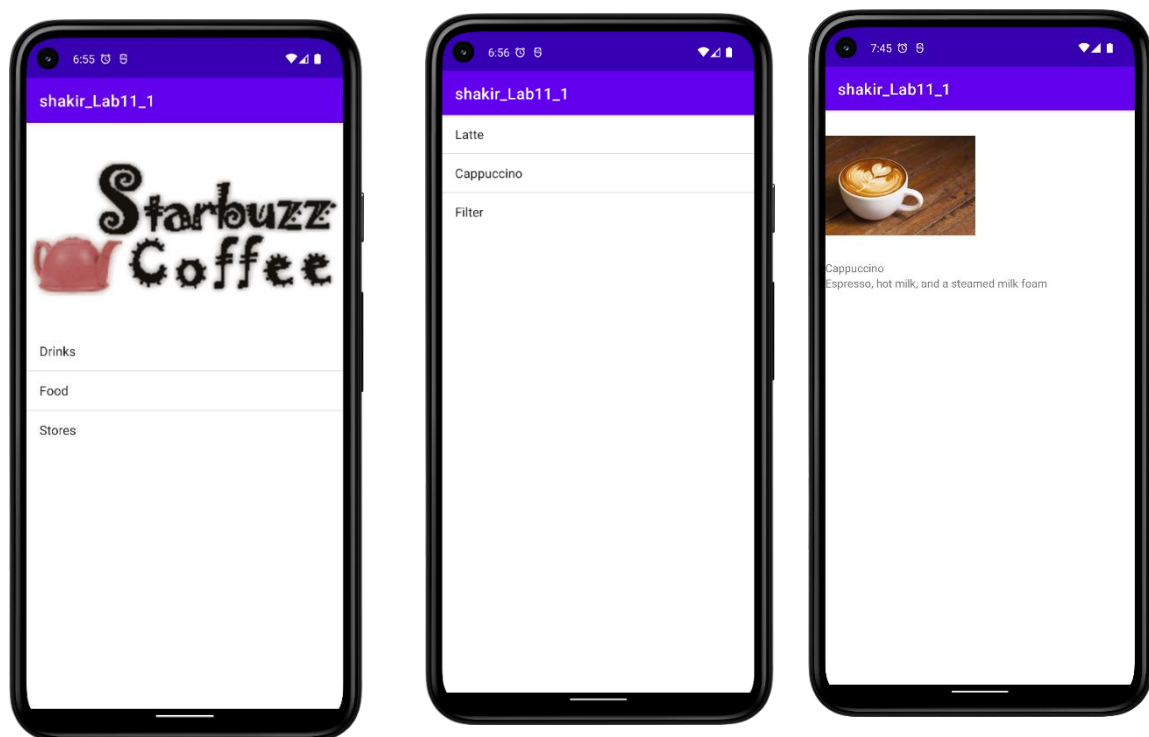
Exercise 1

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.AdapterView.OnItemClickListener;
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>
```

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:supportRtl="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>
```