

Top-level activities: what is most important to the user

Category activities: data that belongs to a particular activity (often a list)

Detail/edit activities: display details for a particular record and let the user edit the activity.

Use ListViews to navigate the data.

Starbuzz app activity:

1. When the app gets launched, it starts activity TopLevelActivity
2. The user clicks on Drinks in TopLevelActivity
3. Details of the drinks are held in the Drink.java class file
4. The user clicks on drink in DrinkCategoryActivity.
5. DrinkActivity gets details of the drink from the Drink.java class.

Steps:

1. Add the drink class and image resources
2. Create ToplevelActivity and its layout. This is the entry point to the app. It needs to display the Starbuzz logo and include a navigational list of options. TopLevelActivity needs to launch DrinkCategoryActivity when Drink option is clicked.
3. Create DrinkCategoryActivity. DrinkCategoryActivity contains a list of all the drinks that are available. When a drink is clicked it needs to launch DrinkCategory.
4. Create DrinkActivity and its layout. DrinkActivity displays details of the drink the user clicked on in DrinkCategoryActivity.

Create a new Android project app named Starbuzz, layout activity_top_level.

Add the pure java class Drink.java.

Add images to drawable

Add strings.xml

Add ListView to activity_top_level

Get ListViews to respond to clicks using OnItemClickListener. Note ListView is subclass of AdapterView.

Add DrinkCategoryActivity.java

A category activity displays data for a single category

A ListActivity is an activity that contains a list

(benefits: no need for layout and for event listener)

If you need to display data that come from a nonstatic source (array, database ...) we need an adapter to bridge the gap between data source and ListView

Manifest

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
```

```

package="ca.georgebrown.comp3074.starbuzz">

<application
    android:allowBackup="true"
    android:icon="@mipmap/ic_launcher"
    android:label="@string/app_name"
    android:supportRtl="true"
    android:theme="@style/AppTheme">
    <activity android:name=".TopLevelActivity">
        <intent-filter>
            <action android:name="android.intent.action.MAIN" />

            <category android:name="android.intent.category.LAUNCHER" />
        </intent-filter>
    </activity>
    <activity
        android:name=".DrinkCategoryActivity"
        android:label="@string/title_activity_drink_category" >
    </activity>
    <activity
        android:name=".DrinkActivity"
        android:label="@string/title_activity_drink" >
    </activity>
</application>

</manifest>

```

Activity_drinl.xml

```

-----
<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="ca.georgebrown.comp3074.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>

```

Activity_top_level

```

-----
<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=".TopLevelActivity" >

    <ImageView android:layout_width="200dp"
        android:layout_height="100dp"
        android:src="@drawable/starbuzz_logo"
        android:contentDescription="@string/starbuzz_logo" />

    <ListView android:id="@+id/list_options"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:entries="@array/options" />

</LinearLayout>

```

Strings

```

-----
<resources>
    <string name="app_name">Starbuzz</string>

    <string name="hello_world">Hello world!</string>
    <string name="action_settings">Settings</string>
    <string name="starbuzz_logo">Starbuzz logo</string>
    <string-array name="options">
        <item>Drinks</item>
        <item>Food</item>
        <item>Stores</item>
    </string-array>
    <string name="title_activity_drink_category">DrinkCategoryActivity</string>
    <string name="title_activity_drink">DrinkActivity</string>
</resources>

```

```

package ca.georgebrown.comp3074.starbuzz;

```

```

/**
 * Created by Ilir on 02/10/2016.
 */
public class Drink {
    // every drink name, desc, imageResourceId
    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)
    };

    private Drink(String name, String description, int imageResourceId) {
        this.name = name;
        this.description = description;
        this.imageResourceId = imageResourceId;
    }

    public String getName() {
        return name;
    }

    public String getDescription() {
        return description;
    }

    public int getImageResourceId() {
        return imageResourceId;
    }

    @Override
    public String toString() {
        return this.name;
    }
}

```

```

package ca.georgebrown.comp3074.starbuzz;

```

```

/**

```

```

 * Created by Ilir on 02/10/2016.

```

```

 */

```

```

import android.app.Activity;
import android.os.Bundle;
import android.widget.ImageView;
import android.widget.TextView;

```

```

public class DrinkActivity extends Activity {

```

```

    public static final String EXTRA_DRINKNO = "drinkNo";

```

```

    @Override

```

```

    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_drink);
    }
}

```

```

        //Get the drink from the intent
        int drinkNo = (Integer) getIntent().getExtras().get( EXTRA_DRINKNO );
        Drink drink = Drink.drinks[drinkNo];

        //Populate the drink image
        ImageView photo = (ImageView) findViewById(R.id. photo);
        photo.setImageResource(drink.getImageResourceId());
        photo.setContentDescription(drink.getName());

        //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());
    }
}

```

```

package ca.georgebrown.comp3074.starbuzz;

```

```

/**
 * Created by Ilir on 02/10/2016.
 */
import android.app.ListActivity;
import android.os.Bundle;
import android.widget.AdapterView;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ListView;
import android.view.View;
import android.content.Intent;

public class DrinkCategoryActivity extends ListActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        ListView listDrinks = getListView();
        ArrayAdapter<Drink> listAdapter = new ArrayAdapter<Drink>( this,
            android.R.layout. simple_list_item_1,
            Drink.drinks );
        listDrinks.setAdapter(listAdapter);
    }

    @Override
    public void onItemClick(ListView listView,
                            View itemView,
                            int position,
                            long id) {
        Intent intent = new Intent(DrinkCategoryActivity. this,
            DrinkActivity.class);
        intent.putExtra(DrinkActivity. EXTRA_DRINKNO, (int) id);
    }
}

```

```

        startActivity(intent);
    }
}

package ca.georgebrown.comp3074.starbuzz;

import android.os.Bundle;
import android.app.Activity;
import android.content.Intent;
import android.widget.AdapterView;
import android.widget.ListView;
import android.view.View;

public class TopLevelActivity extends Activity {
    @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 v,
                    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);
    }
}

```