

Lab Manual

Lab (6): Intents



Visual Programming for Smart Devices lab

❖ Objectives:

create an android application using Intents.

TRY IT OUT Linking Activities with Intents (UsingIntent.zip)

1. Using Android Studio, create a new Android project with an empty Activity named MainActivity; name the project UsingIntent.
2. Right-click your package name under the app>>app>>src>>main>>java folder in the Project Files windows and select New ➔ Java Class
3. Name the new class SecondActivity and click OK.
4. Add the bolded statements from the following code to the `AndroidManifest.xml` file. Be sure to change all instances of "com.jfdimarzio" to whatever package name your project is using.

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.oraibpc.usingintent">
    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportRtl="true"
        android:theme="@style/AppTheme">
        <activity android:name=".MainActivity">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />
                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
        <activity android:name=".SecondActivity">
            <intent-filter>
                <action android:name="com.example.oraibpc.usingintent.SecondActivity"/>
            </intent-filter>
        </activity>
    </application>
</manifest>
```

```
        <category android:name="android.intent.category.DEFAULT"/>
    </intent-filter>

</activity> </application> </manifest>
```

5. Make a copy of the `activity_main.xml` file (in the `res/layout` folder) by right-clicking it and selecting Copy. Then right-click the `res/layout` folder and select Paste. Name the file `activity_second.xml`.
6. Modify the `activity_second.xml` file as follows:

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout 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="com.example.oraibpc.usingintent.SecondActivity">
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="This is the Second Activity!"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
</RelativeLayout>
```

7. In the `SecondActivity.java` file, add the bolded statements from the following code:

```
package com.example.oraibpc.usingintent;

import android.app.Activity;
import android.os.Bundle;

public class SecondActivity extends Activity{
```

```

public void onCreate(Bundle savedInstanceState) {

    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_second);
}
}

```

8. Add the bolded lines in the following code to the activity_main.xml file:

```

<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout 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=".MainActivity">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Main Activity!"
        android:id="@+id/textView"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"

```

```

        android:text="Display second activity"
        android:onClick="onClick"
        android:id="@+id/button"
        android:layout_below="@+id/textView"
        android:layout_alignParentStart="true"
        android:layout_marginTop="56dp"
        tools:ignore="OnClick"
        android:layout_alignParentLeft="true" />
</RelativeLayout>

```

9. Modify the MainActivity.java file as shown in the bolded lines in the following code:

```

package com.example.oraibpc.usingintent;

import android.content.Intent;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;

public class MainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }

    public void onClick (View view)
    {
        startActivity(new Intent("com.example.oraibpc.usingintent.SecondActivity"));
    }
}

```

10. Press Shift+F9 to debug the application on the Android emulator. When the first activity is loaded, click the button and the second activity also loads