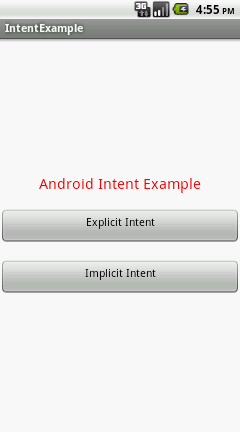
Module: Mobile Application development (Android)

Session 26: Intent and Internet Filters Assignments (Practice)

In this practice session, you will develop Android Intent based application. There are two types of intents in Android. One is implicit intent and another is explicit intent. In this session, you will create both Androidintents.

In this application you will use 2 buttons (buttons named as ‘Explicit Intent’ and ‘Implicit Intent’) in the main screen (Activity); so when you will click on the first button (Explicit Intent), you will start a new Android Activity using ‘Explicit Intent’. Similarly when you will click on the second button (Implicit Intent), you will start a web browser with a specified URL.



### Android Intent Example Details

Below code snippet will start a new activity using an explicit intent with some extra data. Here you force explicitly to start a new activity called ‘SecondActivity.class’.

|  |  |
| --- | --- |
| 1  2  3  4  5  6 | // Create The Explicit Intent and Start The Activity  // here you force explicitly to start SecondActivity.      Intent intentExplicit =new Intent(this,SecondActivity.class);      intentExplicit.putExtra("First Value", "This First Value for ActivityTwo"); // optional      intentExplicit.putExtra("Second Value", "This Second Value for ActivityTwo"); //optional      startActivity(intentExplicit);// Activity is started using explicit intent. |

Below code snippet will start a new web browser with a specified URL using implicit intent. Here you request implicitly to Android OS for start a new web browser with a specified URL.

|  |  |
| --- | --- |
| 1  2  3  4  5  6  7  8  9 | // Create The  Implicit Intent and send request to Browser component  //to start a web browser  //here you request implicitly to Android OS to start a web browser.  Intent intentImplicit = new Intent(Intent.ACTION\_VIEW, Uri.parse("http://www.techblogon.com"));  try {            startActivity(intentImplicit);  } catch (ActivityNotFoundException ex) {  //do something here  } |

**Note:** We can use our intent in verities of ways. For example: Can send data from Android Services and Broadcast Receivers etc. We will discuss regarding the same in another example.

### Create Project: Android Intent Example

1. Create a project with project name: **IntentExample**

2. Fill Application Name: **IntentExample**

3. Fill the Package Name as: **techblogon.intentexample**

4. I have used SDK version ***Android 4.0.3*** and Eclipse Version***Indigo***. But you can use any version.

5. Add below 2 java files (MainActivity.Java and SecondActivity.Java) in you project’s /***src*** folder.

* **MainActivity.Java**

This activity is the base activity from which we will have 2 buttons and will use these for different Android Intents.

|  |  |
| --- | --- |
| 1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  22  23  24  25  26  27  28  29  30  31  32  33  34  35  36  37  38  39  40  41  42  43  44  45  46  47  48  49  50 | package com.techblogon.intentexample;    import android.net.Uri;  import android.os.Bundle;  import android.app.Activity;  import android.content.ActivityNotFoundException;  import android.content.Intent;  import android.view.Menu;  import android.view.View;    public class MainActivity extends Activity {        @Override      protected void onCreate(Bundle savedInstanceState) {          super.onCreate(savedInstanceState);          setContentView(R.layout.activity\_main);      }        //OnClick listener for ExplicitIntent button  public void onClickExplicitIntent(View V)  {      // Create The Explicit Intent and Start The Activity  // here you force explicitly to start SecondActivity.      Intent intentExplicit =new Intent(this,SecondActivity.class);      intentExplicit.putExtra("First Value", "This First Value for ActivityTwo"); // optional      intentExplicit.putExtra("Second Value", "This Second Value for ActivityTwo"); //optional      startActivity(intentExplicit);// Activity is started using explicit intent.  }    //OnClick listener for implicitIntent button  public void onClickImplicitIntent(View V)  {      // Create The  Implicit Intent and send request to Browser component  //to start a web browser  //here you request implicitly to Android OS to start a web browser.  Intent intentImplicit = new Intent(Intent.ACTION\_VIEW, Uri.parse("http://www.techblogon.com"));  try {            startActivity(intentImplicit);  } catch (ActivityNotFoundException ex) {  //do something here  }  }      @Override      public boolean onCreateOptionsMenu(Menu menu) {          // Inflate the menu; this adds items to the action bar if it is present.          getMenuInflater().inflate(R.menu.activity\_main, menu);          return true;      }    } |

* **SecondActivity.Java**

This activity is the second activity, which we will start from the first activity using Android intent.

|  |  |
| --- | --- |
| 1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  22  23  24  25 | package com.techblogon.intentexample;    import android.os.Bundle;  import android.app.Activity;  import android.view.Menu;    public class SecondActivity extends Activity {        @Override      protected void onCreate(Bundle savedInstanceState) {          super.onCreate(savedInstanceState);          setContentView(R.layout.activity\_second);          // Get optional values you have sent from MainActivity via intentExplicit.putExtra          String str1=getIntent().getStringExtra("First Value");          String str2 = getIntent().getStringExtra("Second Value");      }        @Override      public boolean onCreateOptionsMenu(Menu menu) {          // Inflate the menu; this adds items to the action bar if it is present.          getMenuInflater().inflate(R.menu.activity\_main, menu);          return true;      }    } |

6. Add below 2 xml layout files (activity\_main.xml and layout2.xml) in your project’s ***res/layout***folder.

* **activity\_main.xml**

This is used in MainActivity.Java file for showing GUI on the first activity. Here we just added 2 buttons and one TextView for showing some information.

|  |  |
| --- | --- |
| 1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  22  23  24  25  26  27  28  29  30 | <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:gravity="center\_vertical"      android:orientation="vertical" >      <TextView          android:layout\_width="fill\_parent"          android:layout\_height="wrap\_content"     android:gravity="center\_horizontal"     android:textColor="#FF0000"          android:textSize="20sp"          android:text="Android Intent Example" />       <Button          android:id="@+id/explicit\_intent"          android:layout\_marginTop="20dp"          android:layout\_width="fill\_parent"          android:layout\_height="wrap\_content"          android:gravity="center\_horizontal"          android:text="Explicit Intent"          android:onClick="onClickExplicitIntent" />      <Button          android:id="@+id/implicit\_intent"          android:layout\_marginTop="20dp"          android:layout\_width="fill\_parent"          android:layout\_height="wrap\_content"          android:gravity="center\_horizontal"          android:text="Implicit Intent"          android:onClick="onClickImplicitIntent" />  </LinearLayout> |

* **activity\_second.xml**

This is used for showing GUI the second activity. Here we just used a TextView to display some information on the screen.

|  |  |
| --- | --- |
| 1  2  3  4  5  6  7  8  9  10  11  12  13 | <RelativeLayout 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"      tools:context=".MainActivity" >        <TextView          android:layout\_width="wrap\_content"          android:layout\_height="wrap\_content"          android:layout\_centerHorizontal="true"          android:layout\_centerVertical="true"          android:text="Your second activity is started using Android Explicit Intent" />  </RelativeLayout> |

7. Add the below Manifest file (AndroidManifest.xml) in your project’s root folder.

* **AndroidManifest.xml**

|  |  |
| --- | --- |
| 1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  22  23  24  25  26  27  28  29  30  31  32 | <?xml version="1.0" encoding="utf-8"?>  <manifest xmlns:android="http://schemas.android.com/apk/res/android"      package="com.techblogon.intentexample"      android:versionCode="1"      android:versionName="1.0" >        <uses-sdk          android:minSdkVersion="8"          android:targetSdkVersion="16" />        <application          android:allowBackup="true"          android:icon="@drawable/ic\_launcher"          android:label="@string/app\_name"          android:theme="@style/AppTheme" >          <activity              android:name="com.techblogon.intentexample.MainActivity"              android:label="@string/app\_name" >              <intent-filter>                  <action android:name="android.intent.action.MAIN" />                    <category android:name="android.intent.category.LAUNCHER" />              </intent-filter>          </activity>            <activity              android:name=".SecondActivity">          </activity>        </application>    </manifest> |

8. Build and Run the application, then observe the result.