# **Mobile Security Labware**

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2. Unauthorized Mobile Resource Access > Lab Activity >

## Lab2 Permission( by Android Studio)

In this tutorial, we will learn how Permission is used for a project. Also we will take our focus on the case that if we don't give permiss

Objective

In some cases, we will need to request some permissions for our projects, but how to use these permissions could be a big issue in t

**Software Requirement** 

Android Studio

Java JDK, JRE

Android SDK

#### **Tutorial**

Create a new android project:

Start Android Studio



Click-> Start a new Android Studio project

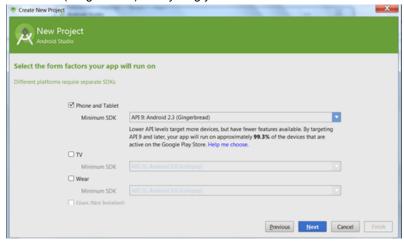
Application Name: Permission

Company Domain: anything. For example: android

Package Name: android.permission

Search this site

Minimum SDK: choose API 9: Android 2.3 (Gingerbread) or anything you want



Click Next

Choose Blank Activity

Activity Name: PermissionActivity

Layout Name: main

Click Finish

In Permission->app->src->main->res->layout->main.xml, copy and paste the following code

#### main.xml

```
<?xml version="1.0" encoding="utf-8"?>
```

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"</p>

android:orientation="vertical"

android:layout width="fill parent"

android:layout\_height="fill\_parent"

<Button android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:id="@+id/interb" android:text="Internet">
</Button>

<Button android:layout\_height="wrap\_content" android:id="@+id/smsb" android:text="SMS" android:layout\_width="74dp"></Button>

</LinearLayout>

Create new xml file in Permission-> app->src->main->res->layout, name it internet.xml, then copy and paste following code

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

<LinearLayout

xmlns:android="http://schemas.android.com/apk/res/android"

```
android:orientation="vertical"
  android:layout width="match parent"
  android:layout height="match parent">
  <WebView android:layout width="match parent" android:layout height="match parent" android:id="@+id/webView">
</WebView>
</LinearLayout>
Create new xml file in Permission-> app->src->main->res->layout, name it sms.xml, then copy and paste following code
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"</p>
  android:orientation="vertical"
  android:layout width="fill parent"
  android:layout_height="fill_parent"
  android:weightSum="1">
  <LinearLayout android:id="@+id/linearLayout1" android:layout_width="match_parent" android:layout_height="wrap_content">
    <TextView android:layout width="wrap content" android:id="@+id/textView1" android:layout height="wrap content" android:textAppear
android:attr/textAppearanceLarge" android:text="To: "></TextView>
    <EditText android:layout width="wrap content" android:layout weight="1" android:layout height="wrap content" android:inputType="ph
       <reguestFocus></reguestFocus>
    </EditText>
  </LinearLayout>
  <TextView android:id="@+id/textView2" android:textAppearance="?
android:attr/textAppearanceLarge" android:layout width="match parent" android:layout height="11dp"></TextView>
  <MultiAutoCompleteTextView android:layout width="match parent" android:layout height="wrap content" android:layout weight="0.59" a
</MultiAutoCompleteTextView>
  <TextView android:id="@+id/textView4" android:layout height="wrap content" android:textAppearance="?
android:attr/textAppearanceLarge" android:layout width="match parent" android:layout weight="0.06"></TextView>
  <LinearLayout android:id="@+id/linearLayout2" android:layout width="match parent" android:layout height="wrap content" android:layou
    <TextView android:id="@+id/textView3" android:textAppearance="?
android:attr/textAppearanceLarge" android:layout height="match parent" android:layout width="wrap content" android:layout weight="0.33"
</TextView>
    <Button android:layout width="wrap content" android:layout weight="0.29" android:layout height="72dp" android:id="@+id/send" andro
</Button>
```

```
</LinearLayout>
</LinearLayout>
Go to Permission->src->Android.Permission, then Create two file "InternetActivity.java" and "SMSActivity.java"
Copy and paste the following code in "InternetActivity.java"
package android.permission;
import android.app.Activity;
import android.os.Bundle;
import android.webkit.WebView;
public class InternetActivity extends Activity {
  public void onCreate(Bundle savedInstanceState) {
     super.onCreate(savedInstanceState);
     setContentView(R.layout.internet);
     final WebView webView = (WebView) findViewByld(R.id.webView);
     webView.getSettings().setJavaScriptEnabled(true);
     webView.loadUrl("http://www.google.com");
  }
}
Copy and paste the following code in "SMSActivity.java"
package android.permission;
import android.app.Activity;
import android.app.PendingIntent;
import android.content.Intent;
import android.os.Bundle;
import android.telephony.gsm.SmsManager;
import android.view.View;
import android.view.View.OnClickListener;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;
@SuppressWarnings("deprecation")
```

```
public class SMSActivity extends Activity {
  public void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.sms);
    final Button send = (Button) findViewByld(R.id.send);
    final EditText text = (EditText) findViewById(R.id.Text);
    final EditText addr = (EditText) findViewByld(R.id.addr);
    send.setOnClickListener(new OnClickListener() {
       public void onClick(View v) {
         // get address and text
         String maddr = addr.getText().toString();
         String mtext = text.getText().toString();
         SmsManager smsmanager = SmsManager.getDefault();
         // send message
         if (maddr.trim().length() != 0 && mtext.trim().length() != 0) {
            try {
              PendingIntent pintent = PendingIntent.getBroadcast(
                   SMSActivity.this, 0, new Intent(), 0);
              smsmanager.sendTextMessage(maddr, null, mtext, pintent,
                   null);
            } catch (Exception e) {
              e.printStackTrace();
            }
            Toast.makeText(SMSActivity.this, "sending success",
                 Toast.LENGTH_LONG).show();
         } else
            Toast.makeText(SMSActivity.this,
                 "Enter Address and Message", Toast.LENGTH_SHORT)
                 .show();
```

```
};
     });
  }
}
Go to Permission->app->src->main->java->android.permission->PermissionActivity.java
Copy and paste the following code in "PermissionActivity.java"
package android.permission;
import android.content.Context;
import android.support.v7.app.ActionBarActivity;
import android.os.Bundle;
import android.view.Menu;
import android.view.MenuItem;
import android.view.View;
import android.widget.Button;
import android.content.Intent;
public class PermissionActivity extends ActionBarActivity {
   @Override
  protected void onCreate(Bundle savedInstanceState) {
     final Context context = this;
     super.onCreate(savedInstanceState);
     setContentView(R.layout.main);
     final Button interb = (Button) findViewByld(R.id.interb);
     // Internet Button listener
     interb.setOnClickListener(new View.OnClickListener() {
       public void onClick(View v) {
          // Start Internet Activity
          Intent intent = new Intent(context, InternetActivity.class);
          startActivity(intent);
       }
     });
     final Button smsb = (Button) findViewByld(R.id.smsb);
```

```
// SMS Button listener
    smsb.setOnClickListener(new View.OnClickListener() {
       public void onClick(View v) {
          // Start SMS Activity
          Intent intent = new Intent(context, SMSActivity.class);
          startActivity(intent);
       }
    });
  }
  @Override
  public boolean onCreateOptionsMenu(Menu menu) {
    // Inflate the menu; this adds items to the action bar if it is present.
    getMenuInflater().inflate(R.menu.menu_permission, menu);
    return true;
  }
  @Override
  public boolean onOptionsItemSelected(MenuItem item) {
    // Handle action bar item clicks here. The action bar will
    // automatically handle clicks on the Home/Up button, so long
    // as you specify a parent activity in AndroidManifest.xml.
    int id = item.getItemId();
    //noinspection SimplifiableIfStatement
    if (id == R.id.action_settings) {
       return true:
    return super.onOptionsItemSelected(item);
  }
Finally, go to Permission-> app->src->main->AndroidManifest.xml, copy and paste following code to it.
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"</p>
  package="android.permission" >
```

}

```
<application
    android:allowBackup="true"
    android:icon="@drawable/ic_launcher"
    android:label="@string/app_name"
    android:theme="@style/AppTheme" >
     <activity
       android:name=".SMSActivity"
       android:theme="@android:style/Theme.NoTitleBar" />
     <activity
       android:name=".InternetActivity"
       android:theme="@android:style/Theme.NoTitleBar" />
     <activity
       android:name=".PermissionActivity"
       android:label="@string/app_name" >
       <intent-filter>
         <action android:name="android.intent.action.MAIN" />
         <category android:name="android.intent.category.LAUNCHER" />
       </intent-filter>
     </activity>
  </application>
  <uses-permission android:name="android.permission.SEND_SMS"></uses-permission>
  <uses-permission android:name="android.permission.INTERNET" />
</manifest>
Save the project-> Click Run.
Run on emulator NexusOne API 19 (You can run any emulator you what, but its SDK must be greater or equal minimum SDK you defined at t
```



Run two emulators to test SMS



Then 5554 emulator will recieve the message.



### Comments

You do not have permission to add comments.