# Lab – Permissions

Objectives:

Familiarize yourself with Android Permissions. Create applications that use, define and enforce Android Permissions.

Exercise A: Using Permissions

This exercise uses Permissions so that it can load protected content. The application is called Lab3b_PermissionsLab and its main Activity is called ActivityLoaderActivity. This Activity's user interface displays a Button labeled "Bookmarks Activity."

When the user clicks this Button, the application will start a new Activity called "BookmarksActivity." That Activity's user interface is shown below.
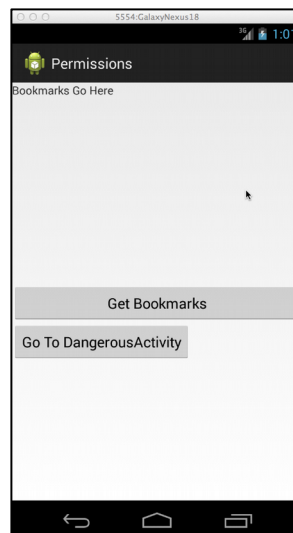
This activity presents a TextView that initially displays the words, "Bookmarks Go Here." It also presents a Button labeled, "Get Bookmarks," and another Button labeled, "Go To DangerousActivity." When the user presses the "Get Bookmarks" Button, the application retrieves the user's Browser bookmarks and then displays them in the TextView, as shown below.
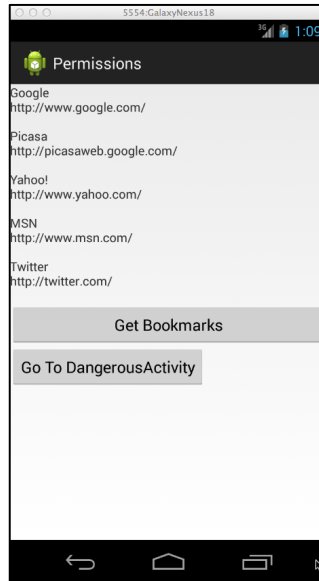

Android stores Browser bookmarks in a ContentProvider. We haven't discussed ContentProviders in detail yet, but the application skeleton includes all the code needed to query this ContentProvider. In order for this code to work however, your application must have permission to read the Browser Bookmarks. In order to complete this assignment you'll need to find the specific permission you need. See http://developer.android.com/reference/android/provider/Browser.html for more information.

Exercise B: Defining and Enforcing Custom Permissions

In this exercise you'll define, enforce and use permissions so that your application can access a separate, permission-protected application, called DangerousApp. You will build your solution to this exercise by extending your solution to Exercise A.

When the user clicks on the Button (shown above) labeled "Go To DangerousActivity", an Activity called "GoToDangerousActivity" will be started. That Activity's user interface appears below.
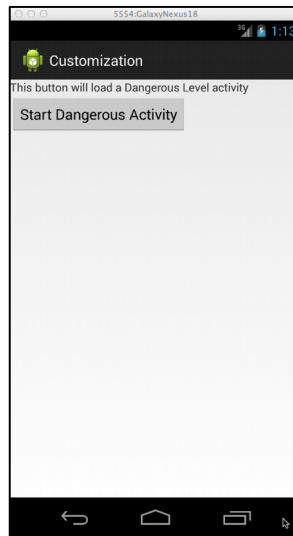
When the user clicks on the "Start Dangerous Activity" Button, this Activity will use an **Implicit Intent** with the **action** "course.labs.permissions.DANGEROUS_ACTIVITY", to start the "DangerousApp." As shown below, that app will simply display a TextView, containing the words, "You have opened a dangerous activity."