



Faculty of Science

Course:	CSCI 4100U: Mobile Devices
Lab Assignment:	#8
Topic:	Location Data, Geocoding

Overview

In this lab, you will develop an application that uses location data to determine the device's position, then displays a reverse lookup of that location to find an address and other information. You will need to create a new Android application. You can use Android Studio's wizard, using a Blank Activity to start.

Detailed Instructions

ShowLocation Activity

For this application, your main activity (ShowLocation) will perform the following steps:

1. Request permission to use location data
2. Register the activity as a location listener (tracking the device's position), including implementing all of the event handlers for location tracking
3. When the location is updated, use geocoding to determine the 'Address' of the current location
4. Display the various information in the Address:
 - Address line 1
 - Address line 2
 - Locality (city)
 - Admin area (province)
 - Country name
 - Postal code
 - Phone number
 - URL

location_activity.xml

This layout will contain the user interface elements for an uneditable form, for displaying the information about a location, described above. The user will not interact with this user interface. The only way to interact is to update the location data (which you should do, to test your application). When the device moves to a new location (simulated using the Android Device Monitor).

Note: Don't forget that the geocoder requires INTERNET permission in the application's manifest.