

# Faculty of Science

Course: CSCI 4100U: Mobile Devices

Lab Assignment: #9
Topic: Maps

## **Overview**

In this lab, you will augment the app from the last lab, adding maps display. Start with a copy of the app from the last lab, as we will remove some of the functionality of that app and replace it with new functionality. The app will now follow the device's position on a map.

## **Detailed Instructions**

#### **ShowLocation Activity**

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

- 1. Prepare a map display (satellite view with zoom controls)
- 2. Request permission to use location data
- 3. Register the activity as a location listener (tracking the device's position), including implementing all of the event handlers for location tracking
- 4. When the location is updated, use geocoding to determine the 'Address' of the current location
- 5. Animate the map's camera to be centred at the new position
- 6. Show a marker at those coordinates that includes:
  - 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 map fragment. You'll need to prepare the API key, as described in the lectures, in order to show a map. Don't forget to include INTERNET permissions to show the map data (and perform geocoding).