COMP 3606 - Wireless and Mobile Technologies

Assignment 2

The objective of this assignment is to create **TWO** android applications that leverages IOT technologies. For both applications, the following MQTT configuration should be used

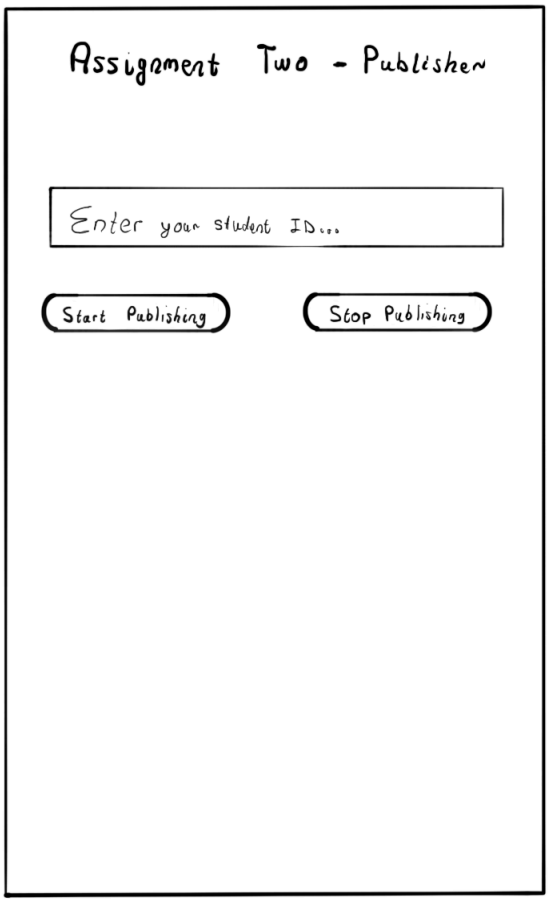
Broker Hostname: broker.sundaebytestt.com
Broker Port: 1883
Topic: assignment/location

Publisher Application

- The application should allow the user to enter the their own student ID into the first TextView that has a **hint** *"Enter your student ID…"*

- Upon pressing the *"Start Publishing"* button, the application should start receiving location updates which should be sent to the broker.

- Upon pressing the *"Stop Publishing"* button, the application should stop receiving updates and stop publishing content to the broker



Subscriber Application

- This application should start to listen to the appropriate topic immediately upon starting.

- Content received should be stored in an SQLite database.

- While the phone is actively listening to a topic subscription, any data received should be graphed using the **Google Maps API** to render the map and *polylines* to render the device path. Additionally, for each device, the following information should be displayed
    - Minimum Speed
    - Maximum Speed

- Upon selecting the "*View More*" option in the list, the user should be directed to a new screen that allows a user to get reports on the device that was selected based on a starting and ending datetime. Additionally, for the time-period selected show the following information
    - Minimum Speed
    - Maximum Speed
    - Average Speed