ESE516

IoTracking

**A10 – Q3**

1. The IoT device sends GPU and IMU numerical data to the cloud. The cloud then displays these data in graphs and plots to demonstrate the current position and acceleration of the device. The cloud can then (optional) send back an acknowledgement message to the device, indicating that it received data.
2. Topics we will use:
   1. GPS: integer arrays of the coordinates of the device
   2. IMU: [X, Y, Z] float arrays of the acceleration of the device
3. For each topic:

The HW generates the data for the topic.

HW subscribes to the topic, and writes new data into the topic at every refresh, which is broadcasted to MQTT\_IN.

NodeRed then publishes the topic and receives the data.

1. The application will be split into separate threads as:
   1. GPS: one thread, Node red publishes this thread.
   2. IMU: one thread, Node red publishes this thread.