Department of Electronic & Telecommunications Engineering

University of Moratuwa

EN3270 Internet of Things Systems Engineering

Course Project (Task 2)

2018 Batch _____   **Semester 6**

Overview

This assignment is the continuation of the previously submitted Task 1 python script. In this task you should obtain data pertaining to a given IoT environment from the MQTT Broker, (different from the one created by the group in previous task) and design and develop a NodeRED dashboard to visualize the data in the most effective manner. **(Submission deadline: 28th September 2022 11:59PM)**

Following table represents the topic name each group must subscribe and continue their dashboard development.

Group Name	Topic Name
Group 1	`task_02b`
Group 2	`task_02m`
Group 3	`task_02e`
Group 4	`task_02c`
Group 5	`task_02g`
Group 6	`task_02l`
Group 7	`task_02h`
Group 8	`task_02k`
Group 9	`task_02a`
Group 10	`task_02f`
Group 11	`task_02o`
Group 12	`task_02d`
Group 13	`task_02n`
Group 14	`task_02j`
Group 15	`task_02i`

Task 2 – IOT Dashboard

In this task, you will design and deploy a NodeRED dashboard for a live IoT Environment assigned to you. Your group will be given the relevant topic name where you should analyze the messages under it. First, you must identify the sensors under the given IoT environment and use those findings for the dashboard design. Your design should include the most appropriate gauges, graphs, or visualization tools for each sensor type defined under the environment.

The server details for the MQTT broker are same as the task 01 server details (see Annex). If there is any difficulty in identifying sensors using the subtopic name, reach out to any instructor mentioned below for assistance.

Note: NodeRED should be deployed in a Raspberry Pi board.

Submission for Task 2

The NodeRED dashboard should be exported into JSON format and submitted to the Moodle **named a <group_ID_NodeRed.json>**

Evaluation

This course assignment will be evaluated by the submitted files and through a **demonstration & viva**.

Guidance

For any clarification regarding the assignment tasks or issues regarding the servers, please contact following instructors.

Ranush Wickramarathne (ranushw@uom.lk)
Pasan Dharmasiri (pasanl@uom.lk)

ANNEX

MQTT Server Information

Broker	pldindustries.com
Port	1883
Client ID	<group_ID>
Username	app_client
Password	app@1234