

**INTERNET of THINGS**  
**Lab 1 Assignment**  
**On**  
**MQTT, Docker and, Arduino Simulator**



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## Task 1 & 2:

```
Subscribing to topic testtopic
Publishing message to topic Testtopic
Connected to broker.hivemq.com port: 1883
Flags: {'session present': 0} return code: 0
testtopic b'test message'
testtopic b'{"app_id": "hajo66", "dev_id": "node1", "port/channel": 58, "rssi": 89, "snr": 91, "sf": "SF7BW125", "C_F": "C", "temperature": 15, "time": "24-Nov-2020 14:50:25", "messgae id/counter": 68}'
testtopic b'{"app_id": "hajo66", "dev_id": "node1", "port/channel": 58, "rssi": 89, "snr": 91, "sf": "SF7BW125", "C_F": "C", "temperature": 15, "time": "24-Nov-2020 14:50:25", "messgae id/counter": 68}'
```

Fig: 1: Publishing the messages to the Sensor

```
Connected to broker.hivemq.com port: 1883
Subscribed: 1 granted QoS: (2,)
testtopic 2 b'Hi\n'
testtopic 2 b'Hi\n'
testtopic 2 b'Hi\n'
testtopic 1 b'Hi\n'
```

Fig 2: Receiving Messages from the Sensor

## Task 3:

For task 3, I was able to install docker, change it to windows and run the build command and create the images but when I am trying to run the container it was giving me problems and I was unable to solve the issue.

LOCAL REMOTE REPOSITORIES					
<input type="text" value="Search"/>		Sort by ▾			
		TAG	IMAGE ID	CREATED	SIZE
<none>	IN USE	<none>	58c0dfd45ed8	less than a minute ago	5.17 GB
mcr.microsoft.com/wind...		1803-amd64	723ff6f8e0ef	9 months ago	5.17 GB

Fig: Docker Images

```
C:\Users\makn0023\Desktop\IOT\Labs\lab1-mqtt-docker\Docker>docker run -it mqtt
Unable to find image 'mqtt:latest' locally
docker: Error response from daemon: pull access denied for mqtt, repository does not exist or may require 'docker login'
: denied: requested access to the resource is denied.
See 'docker run --help'.
```

Fig: Error in the Run

Feedback:

1. The lab material was very relevant but for me, it took some time in understanding the concept explained in the lab manual. But still, I was unclear about somethings and I need to figure them out and understand them.
2. I suggest no corrections.