

# Programming for IoT applications

## Lab 4

Remember to always use SenML as data format:

```
{“bn”: “http://example.org/sensor1/”, “e”: [{ “n”: “temperature”, “u”: “Cel”,  
“t”: 1234, “v”:22.5 } ]}
```

### Exercise 1

Develop an MQTT publisher to emulate a temperature sensor that publish random values in the range  $-10,39$  every 5 seconds for 2 minutes. Develop also an MQTT subscriber that receives these values, prints these on screen and save these on a json file called temp\_log.json. To generate the values, you can use one of the functions of the library random listed below:

- random.randint(a,b)
- random.random()
- random.uniform(a,b)