

IT301 μ From IoT Devices to the Cloud with the IBM Node-RED Tool

Project 1: Node-RED and Arduino

This assessment evaluates the following competencies:

- *IT102 – Write and launch a program with the Node-RED tool* (+1)

You may also be assessed on the following competencies:

- *IT301 – Design a dashboard showing the value of a hardware sensor* (+1)
- *IT501 – Debug and test a Node-RED program* (+1)
- *WP501 – Define, launch and test an HTTP API server* (+1)
- *WP502 – Test an HTTP API server with Postman* (+1)
- *IT121 – Define JavaScript functions blocks to transform data* (+1)

In this project assessment, you have to write an application that connects to an Arduino, in both ways, with a computer on which Node-RED is running. The Arduino must communicate some information to the Node-RED application, and conversely, using a serial communication. To succeed the assessment, you have to:

1. Write and test your application on your computer.
2. Build your application in front of your teacher and prepare a short demonstration.
3. Explain to the teacher the structure of your code and answer his/her questions about how your program is working.