Setting up Mosquitto on Linux

- ➢ $sudo -i

- ➢ $snap install arduino

- ➢ $sudo usermod -a -G dialout babor-mirza

- ➢ $sudo apt install mosquitto

- ➢ $sudo apt install mosquitto-clients

- ➢ $sudo apt install mariadb-server

- ➢ $sudo mysql_secure_installation
  set root password and access privileges.

- ➢ $sudo apt install wiringpi

- ➢ $sudo apt install i2c-tools /*i2cdetect*/

- ➢ $sudo apt install net-tools /* netstat */

- ➢ $sudo apt update

- ➢ $sudo apt upgrade

- ➢ $sudo service mosquitto status

- ➢ $sudo netstat -an | grep 1883 /* mosquitto listening on **1883***/

- ➢ $sudo apt install gcc

- ➢ $sudo apt install g++

- ➢ $sudo apt install python

- ➢ Go to Arduino IDE> Preferences > add board
  https://dl.espressif.com/dl/package_esp32_index.json,
  http://arduino.esp8266.com/stable/package_esp8266com_index.json

- ➢ Open the Boards Manager. Go to **Tools** > **Board** > **Boards Manager…**

- ➢ Search NodeMCU ESP32 board and click to install packages.

- ➢ Plug the ESP32 board to your computer.

- ➢ Select your Board in **Tools** > **Board** menu ()

- ➢ sudo usermod -a -G dialout babor-mirza

- change permission for connected USB NodeMCU
  $Sudo chmod 777 /dev/ttyUSB0

- Temperature Sensor

- **In Arduino Sketch** > **Include Library** > **Manage Libraries**. Onwire Library by Paul

- Install an other library search for "**Dallas**" and install Dallas Temperature library by Miles Burton.

- <OneWire.h> <DallasTemperature.h>

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