README.md 8/18/2019

Guide for ESP32

Environment Setup for ESP32

• Before start, please follow this brilliant setup guide to make your environment ready with ESP32.

Get ESP32 Sample Code

• Get IoTPractices repository via git or just download as zip :

```
$ git clone https://github.com/cagdasdoner/IoTPractices.git
```

• Now, switch to ESP32 Arduino workshop code directory :

```
$ cd IoTPractices/devices/esp32
```

Configuring the Device with your Credentials

- Navigate into sample code's directory.
- Type below command to set your configurations first :

```
$ make menuconfig
```

• From the opened **config menu** screen, we will first configure our Wi-Fi credentials. To do that, select **Example Connection Configuration** like given below:

```
SDK tool configuration --->
Application manager --->
Bootloader config --->
Security features --->
Serial flasher config --->
Example Configuration --->
Partition Table --->
Compiler options --->
Component config --->
Compatibility options --->
```

Provide your SSID and Password into the opening screen :

```
Connect using (Wi-Fi) --->
(myssid) WiFi SSID
(mypassword) WiFi Password
[*] Obtain IPv6 link-local address
```

README.md 8/18/2019

- · Save and exit.
- Jump into the MaQiaTTo MQTT Configuration tab to provide MQTT credentials of your user:

```
SDK tool configuration --->
Application manager --->
Bootloader config --->
Security features --->
Serial flasher config --->
Partition Table --->
Example Connection Configuration --->
Compiler options --->
Component config --->
Compatibility options --->
```

- NOTICE that, magiatto.com will be your MQTT broker during the practice.
- You will be asked for your MQTT username, password and test topic. Provide them into the menu:

```
(type your username here) Broker username
(type your broker password here) Broker password
(type your broker test topic here) Broker topic
```

- Save and exit.
- Now your configuration is ready to connect to WiFi and MQTT Broker. Exit from the menuconfig to the
 console.
- After completing the steps above, you will be ready to complete given instructions and practices in workshop.

Running the Sample Code

• Be sure that your ESP32 device is connected to your PC and type the below command both to compile and flash:

```
$ make flash
```

• After it succeeds, navigate to the monitor tool with below command to check your connection :

```
$ make monitor
```

• Device will start to run and connect to maqiatto.com, which is your MQTT Broker. You can follow up the logs related with your device status.