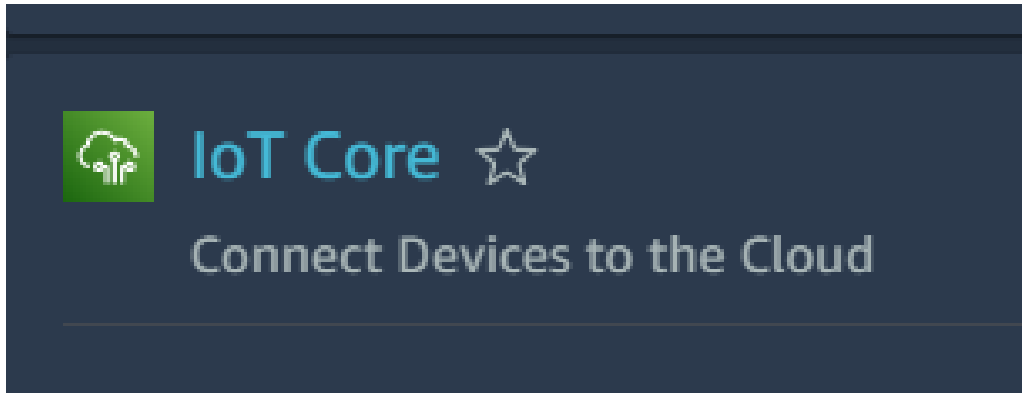
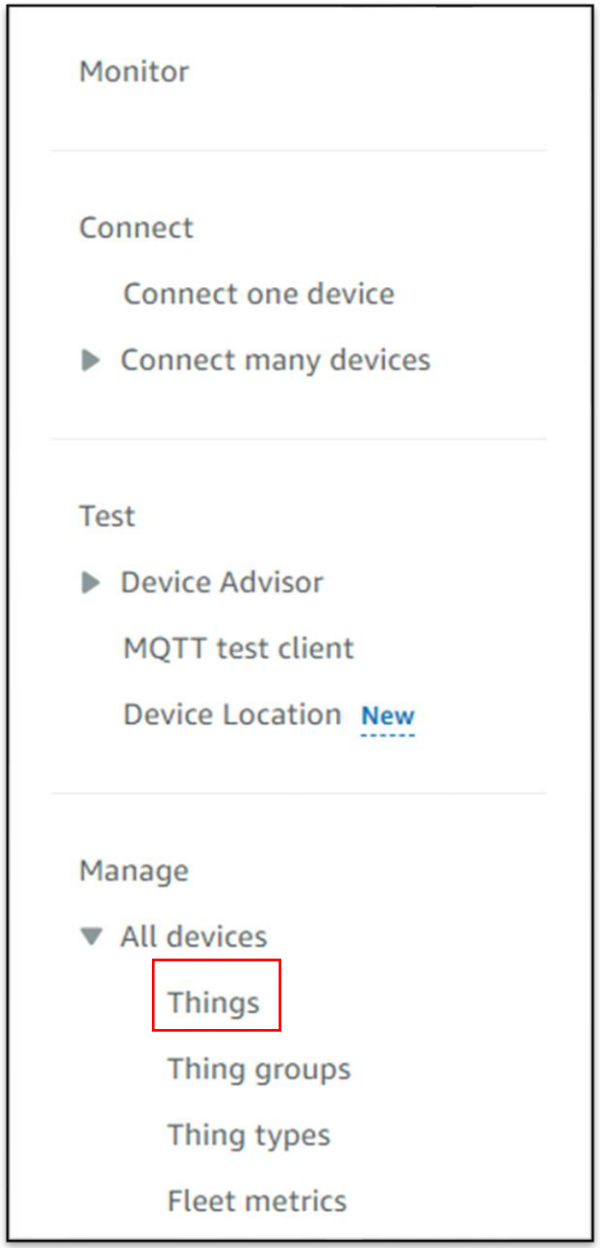
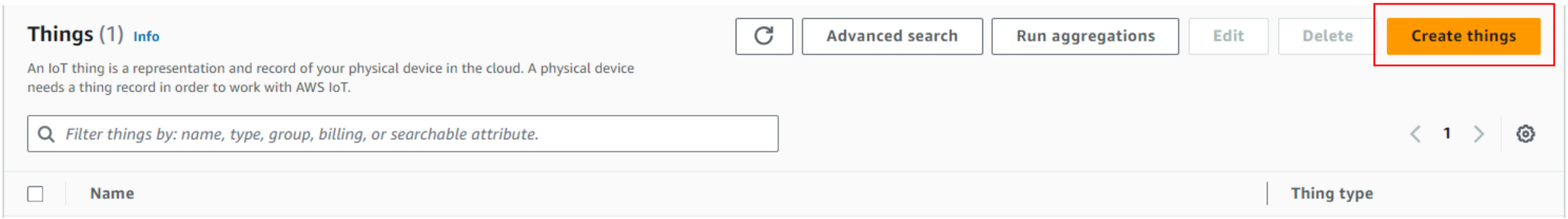
ESP32_TO_AWS


IoT Core
Connect Devices to the Cloud


Monitor
Connect
Connect one device
Connect many devices
Test
Device Advisor
MQTT test client
Device Location New
Manage
All devices
Things
Thing groups
Thing types
Fleet metrics



步驟

1.Create single thing

2.Thing name:{自訂}

3.Auto-generate a new certificate (recommended)

4.Create policy

Create policy Info

AWS IoT Core policies allow you to manage access to the AWS IoT Core data plane operations.

Policy properties

AWS IoT Core supports named policies so that many identities can reference the same policy document.

自訂

Policy name

PolicyName

A policy name is an alphanumeric string that can also contain period (.), comma (,), hyphen(-), underscore (_), plus sign (+), equal sign (=), and at sign (@) characters, but no spaces.

▶ Tags - *optional*

Policy statements | Policy examples

Policy document Info

Builder | JSON

An AWS IoT policy contains one or more policy statements. Each policy statement contains actions, resources, and an effect that grants or denies the actions by the resources.

policy.txt內容取代

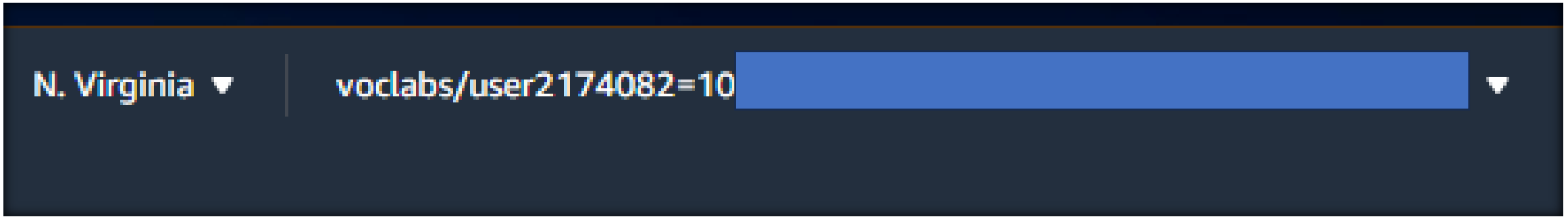
Policy document

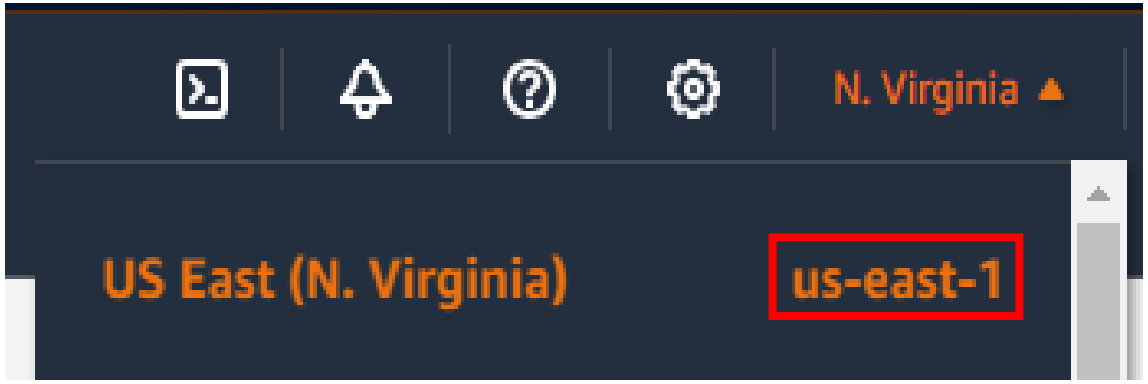
```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": "",
      "Resource": ""
    }
  ]
}
```

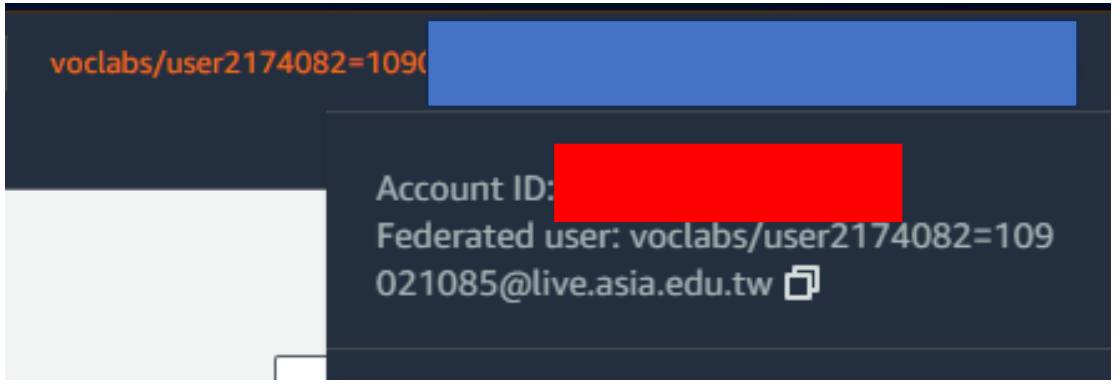
policy.txt

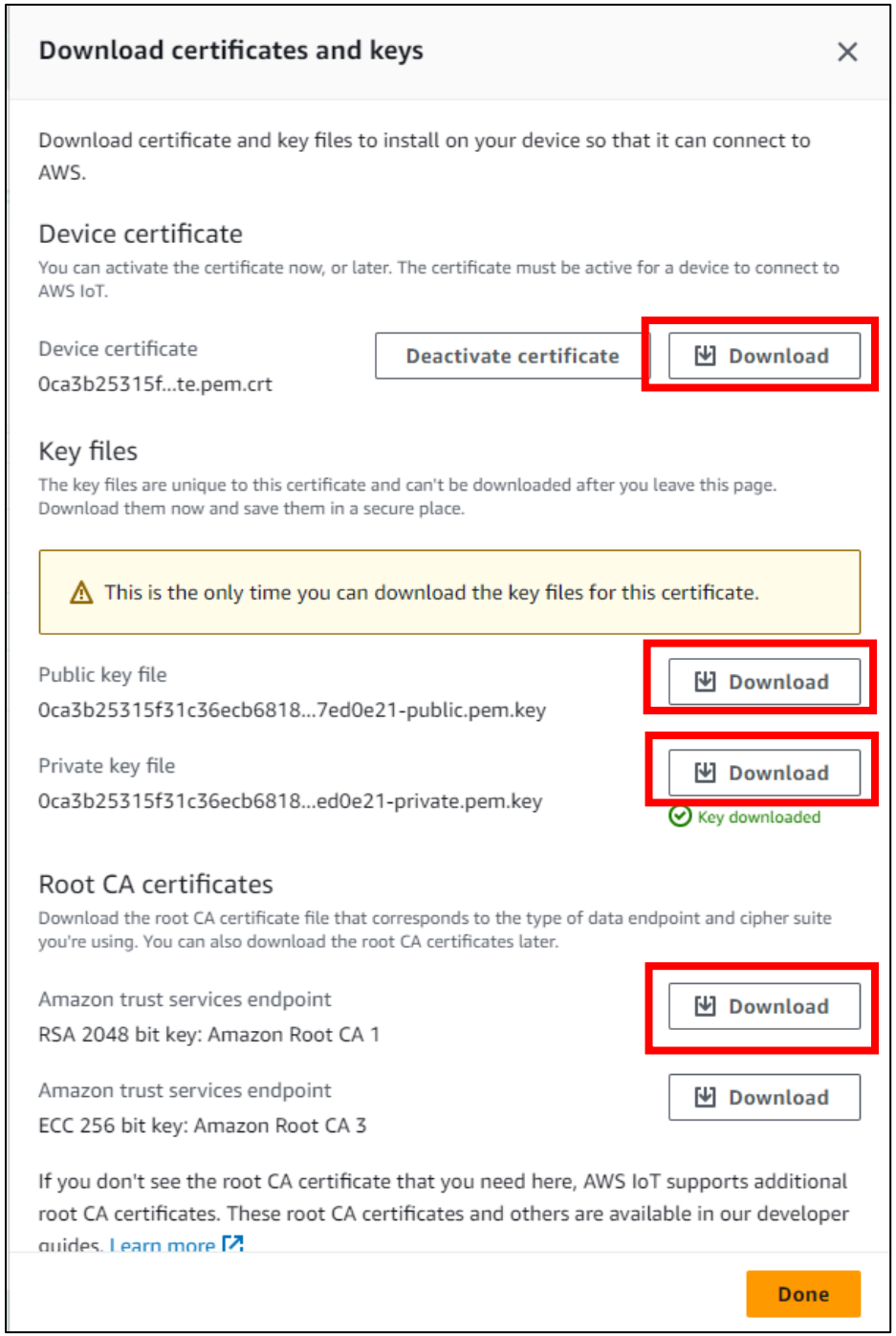
```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": [
        "iot:Publish",
        "iot:Receive",
        "iot:PublishRetain"
      ],
      "Resource": "arn:aws:iot:us-east-1:{accountid}:topic/esp32/*"
    },
    {
      "Effect": "Allow",
      "Action": [
        "iot:Subscribe"
      ],
      "Resource": "arn:aws:iot:us-east-1:{accountid}:topicfilter/esp32/*"
    },
    {
      "Effect": "Allow",
      "Action": [
        "iot:Connect"
      ],
      "Resource": "arn:aws:iot:us-east-1:{accountid}:client/*"
    }
  ]
}
```

可用區&accountid需修改


N. Virginia
voclabs/user2174082=10


N. Virginia
US East (N. Virginia)
us-east-1


voclabs/user2174082=109(
Account ID:
Federated user: voclabs/user2174082=109
021085@live.asia.edu.tw

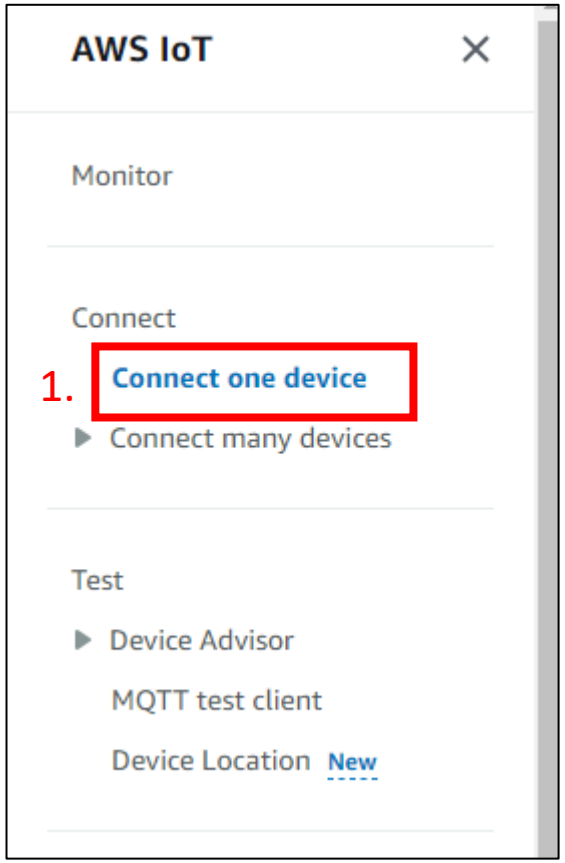


1.選擇剛建立的policy按下create thing
2.出現此視窗需先下載(此視窗只出現一次)
3.按下done後即完成

公鑰暫時沒用到

Arduino_code:esp-aws-iot/esp_aws.ino at main · Oliver-ke/esp-aws-iot · GitHub (ArduinoJson庫需載)

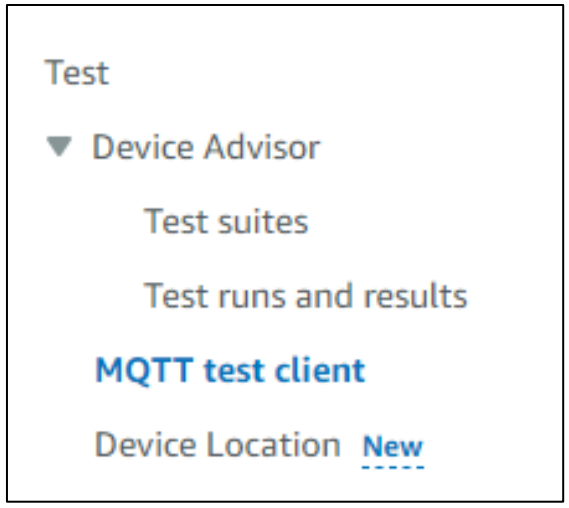
```
#include <pgmspace.h>

#define THINGNAME "esp32_1" // replace with thing name

const char WIFI_SSID[] = ""; // replace with wifi ssid
const char WIFI_PASSWORD[] = ""; // replace with wifi password

const char AWS_IOT_ENDPOINT[] = ""; // replace with iot endpoint

// Amazon Root CA 1 :
static const char AWS_CERT_CA[] PROGMEM = R"EOF(
-----BEGIN CERTIFICATE-----

-----END CERTIFICATE-----
)EOF";

// Device Certificate
static const char AWS_CERT_CRT[] PROGMEM = R"KEY(
-----BEGIN CERTIFICATE-----

-----END CERTIFICATE-----
)KEY";

// Device Private key
static const char AWS_CERT_PRIVATE[] PROGMEM = R"KEY(
-----BEGIN RSA PRIVATE KEY-----

-----END RSA PRIVATE KEY-----
)KEY";
```

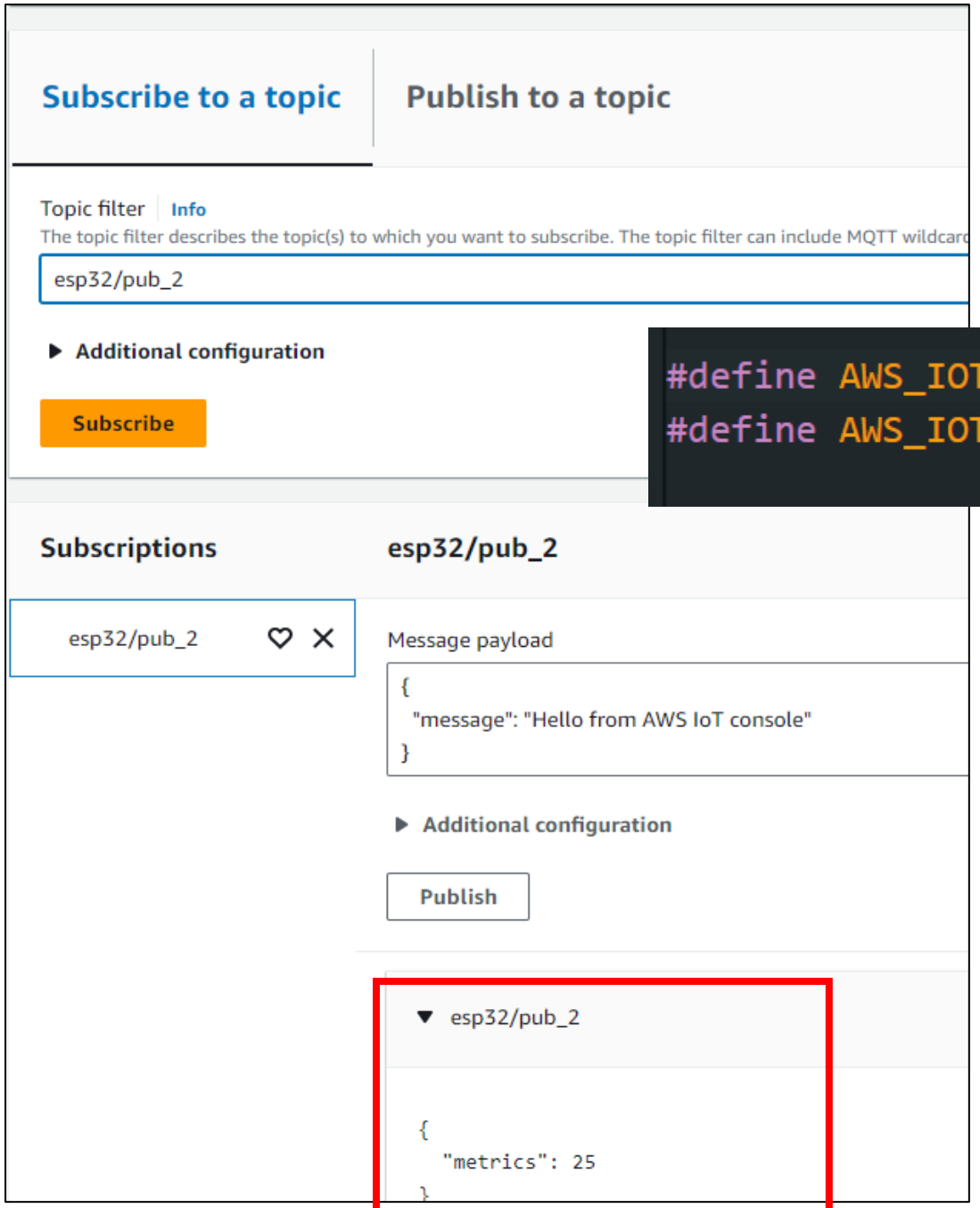


4. From the terminal window, enter this command:

2.

```
ping
```






```
#define AWS_IOT_PUBLISH_TOPIC   "esp32/pub_2"
#define AWS_IOT_SUBSCRIBE_TOPIC "esp32/sub_2"
```

資料來源:https://awsacademy.instructure.com/courses/57479/modules/items/5049636

影片參考https://www.youtube.com/watch?v=QctUfGqdR20&ab_channel=codejam