

<https://github.com/mannuluss/TrabajosSoftwareIII/tree/main/publish-subscribe>

Mensajería Publish-Subscribe

-Implemente los productores en consola y con un lenguaje de programación

MEDIANTE CONSOLA

```
Símbolo del sistema

C:\Program Files\mosquitto>mosquitto_pub -t topic1 -m "{ msj: 'qweqweqweqw' }"

C:\Program Files\mosquitto>mosquitto_pub -t topic2 -m "{ msj: 'qweqweqweqw' }"

C:\Program Files\mosquitto>mosquitto_pub -t topic2 -m "{ msj: 'sss', algo: '111' }"

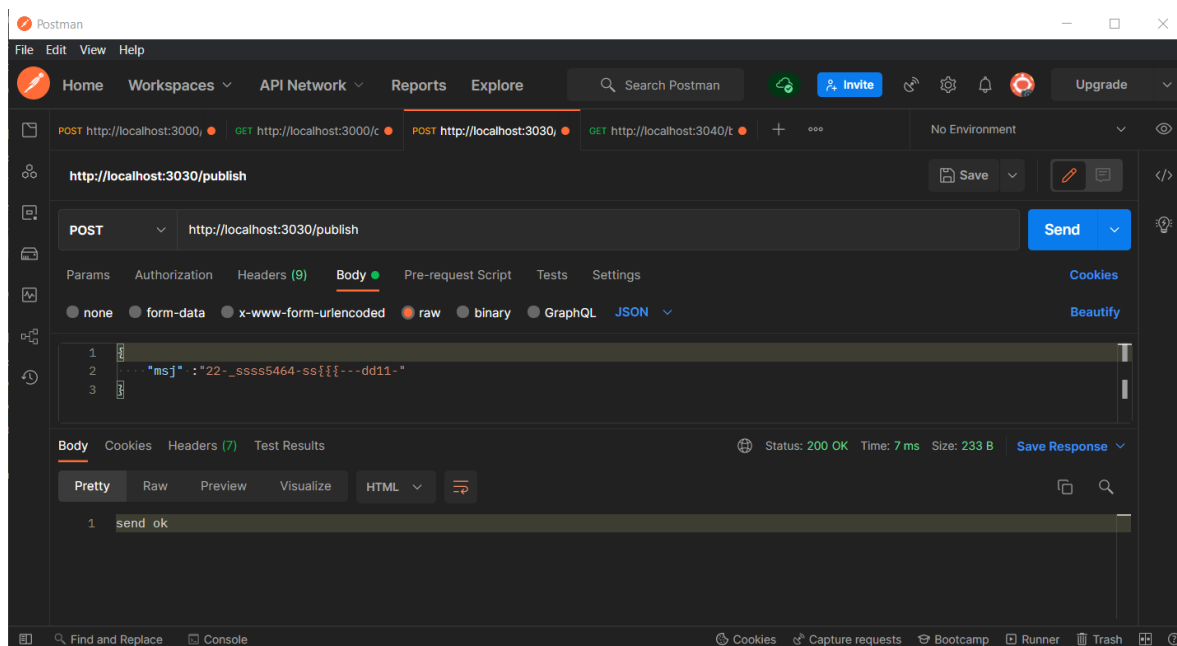
C:\Program Files\mosquitto>mosquitto_pub -t topic -m "aqui va un mensaje"

C:\Program Files\mosquitto>
```

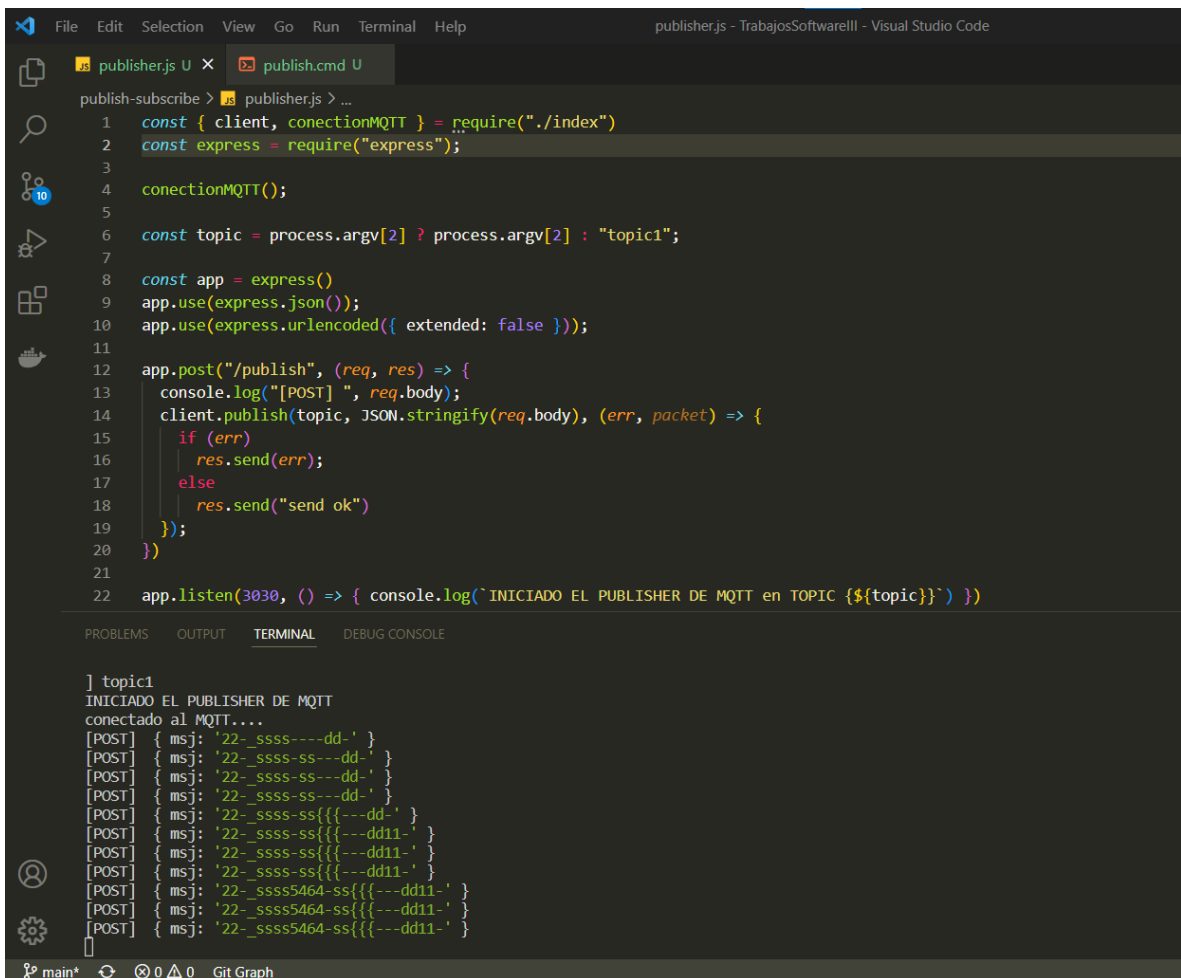
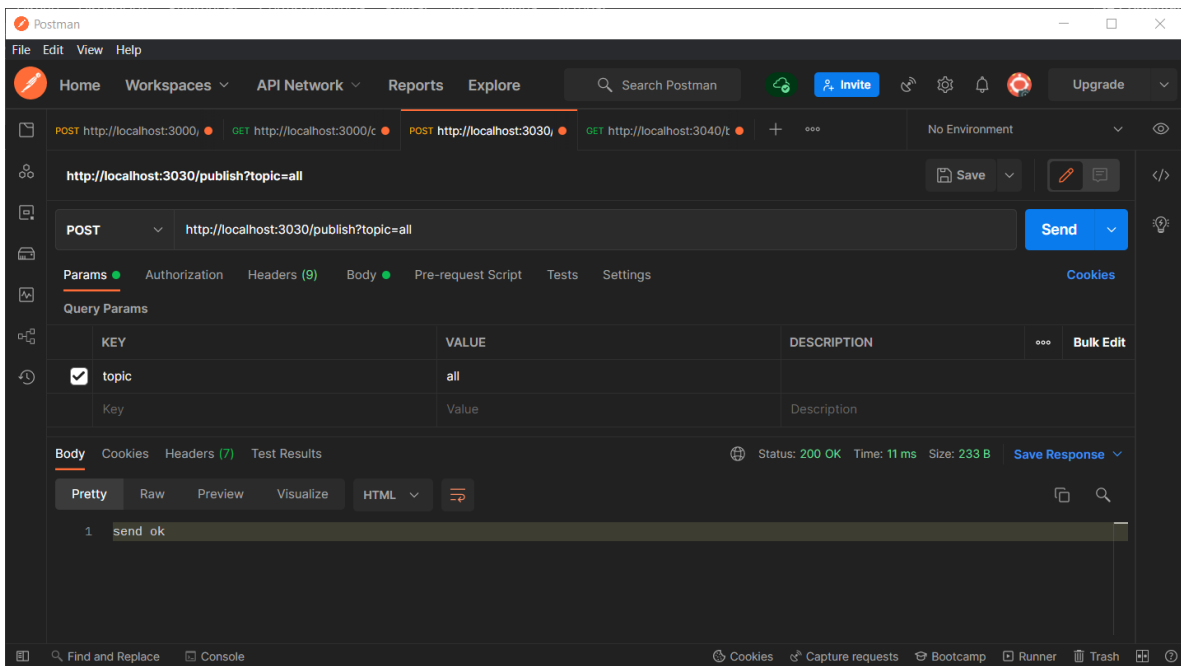
Se instala mosquitto en Windows. En la carpeta de instalación hay unos .exe que son usados para hacer estas llamadas de publicar y suscribirse.

PROGRAMA

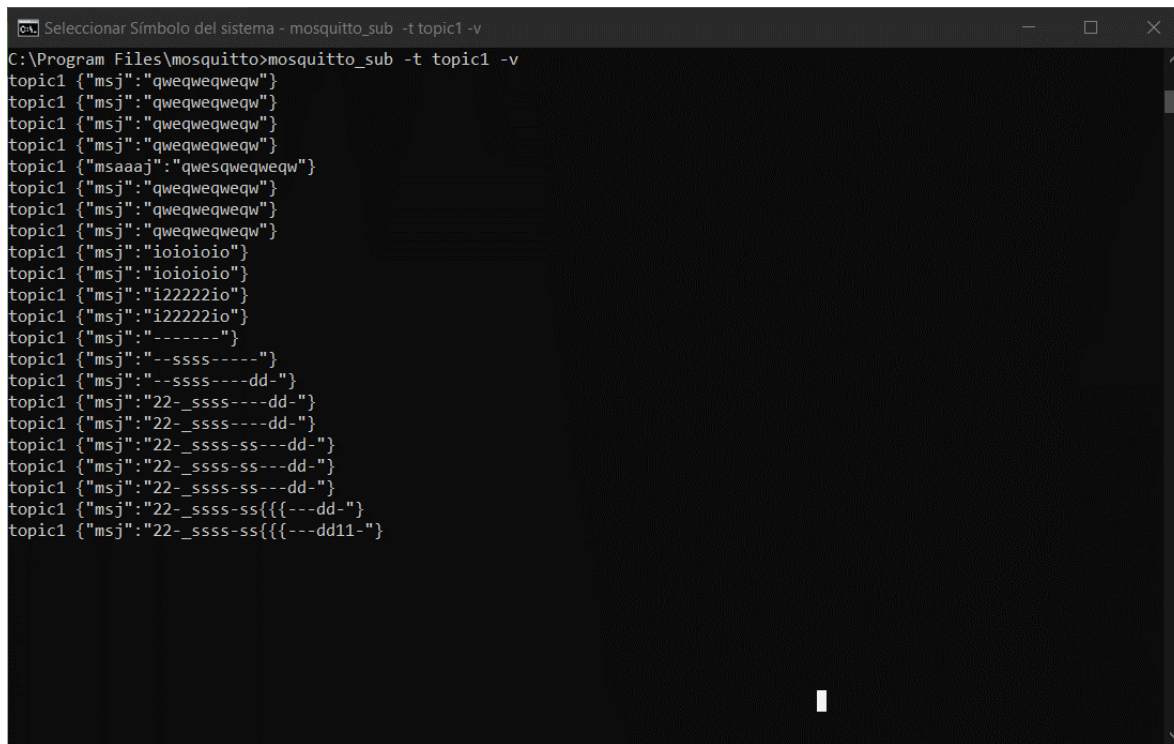
Se creo un servicio que recibe en “publish” dentro del body el mensaje que se desea enviar al bróker. Por defecto se envía todos los tópicos.



Mediante los parámetros de la URI se le puede especificar el tópico.



-Implemente los consumidores en consola y con un lenguaje de programación



```
Seleccionar Símbolo del sistema - mosquitto_sub -t topic1 -v
C:\Program Files\mosquitto>mosquitto_sub -t topic1 -v
topic1 {"msj":"qweqweqweqw"}
topic1 {"msj":"qweqweqweqw"}
topic1 {"msj":"qweqweqweqw"}
topic1 {"msj":"qweqweqweqw"}
topic1 {"msaaa":"qweqweqweqw"}
topic1 {"msj":"qweqweqweqw"}
topic1 {"msj":"qweqweqweqw"}
topic1 {"msj":"qweqweqweqw"}
topic1 {"msj":"ioioioio"}
topic1 {"msj":"ioioioio"}
topic1 {"msj":"i22222io"}
topic1 {"msj":"i22222io"}
topic1 {"msj":"-----"}
topic1 {"msj":"--ssss----"}
topic1 {"msj":"--ssss----dd-"}
topic1 {"msj":"22-_ssss----dd-"}
topic1 {"msj":"22-_ssss----dd-"}
topic1 {"msj":"22-_ssss-ss---dd-"}
topic1 {"msj":"22-_ssss-ss---dd-"}
topic1 {"msj":"22-_ssss-ss---dd-"}
topic1 {"msj":"22-_ssss-ss{{{---dd-"}
topic1 {"msj":"22-_ssss-ss{{{---dd11-"}

```

Se creo un programa que se suscribe a uno o varios tópicos, y guarda la información que es recibida de bróker en ese tópico y luego el usuario puede consultar con una petición GET en “/bróker”, si en los parámetros no especificamos el tópico nos llegan todos.

```
publisher.js U subscriber.js X
publish-subscribe > subscriber.js > app.get("/broker") callback
4
5 const topic = process.argv[2] ? process.argv[2] : "#";
6 var brokerMsj = {}
7
8 var init = async () => {
9   await conectionMQTT()
10
11   client.subscribe(topic, (err, granted) => { // se suscribe a todos los topicos
12     if (err)
13       console.log(err);
14     else
15       console.log("[MQTT] subscribe: ", granted)
16   })
17   client.on('message', (topic, payload) => {
18     console.log('Received Message:', topic, payload.toString())
19     if (brokerMsj[topic] == undefined) {
20       brokerMsj[topic] = []
21     }
22     brokerMsj[topic].push(payload.toString());
23   })
24 }
25 init();
26
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

```
> publishsubscribe@1.0.0 sub C:\Users\Mannulus\Documents\UIS\2022-1\TrabajosSoftwareIII\publish-subscribe
> node subscriber.js

INICIADO EL PUBLISHER DE MQTT
conectado al MQTT....
[MQTT] subscribe: [ { topic: '#', qos: 0 } ]
Received Message: topic1 { msj: 'qweqweqweqw' }
Received Message: topic2 { msj: 'aaaaawwwaaaa' }
Received Message: topic1 { msj: 'qweqweqweqw' }
Received Message: topic2 { msj: 'qweqweqweqw' }
Received Message: topic2 { msj: 'sss', algo: 111 }
Received Message: topic aqui va un mensaje
[GET] {}
[GET] {}
[GET] {}
```

Ln 36, Col 29 Spaces: 4

Postman

File Edit View Help

Home Workspaces API Network Reports Explore Search Postman Invite Upgrade

POST http://localhost:3000/ GET http://localhost:3000/c POST http://localhost:3030/ GET http://localhost:3040/t No Environment

http://localhost:3040/broker Save

GET http://localhost:3040/broker Send

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

Query Params

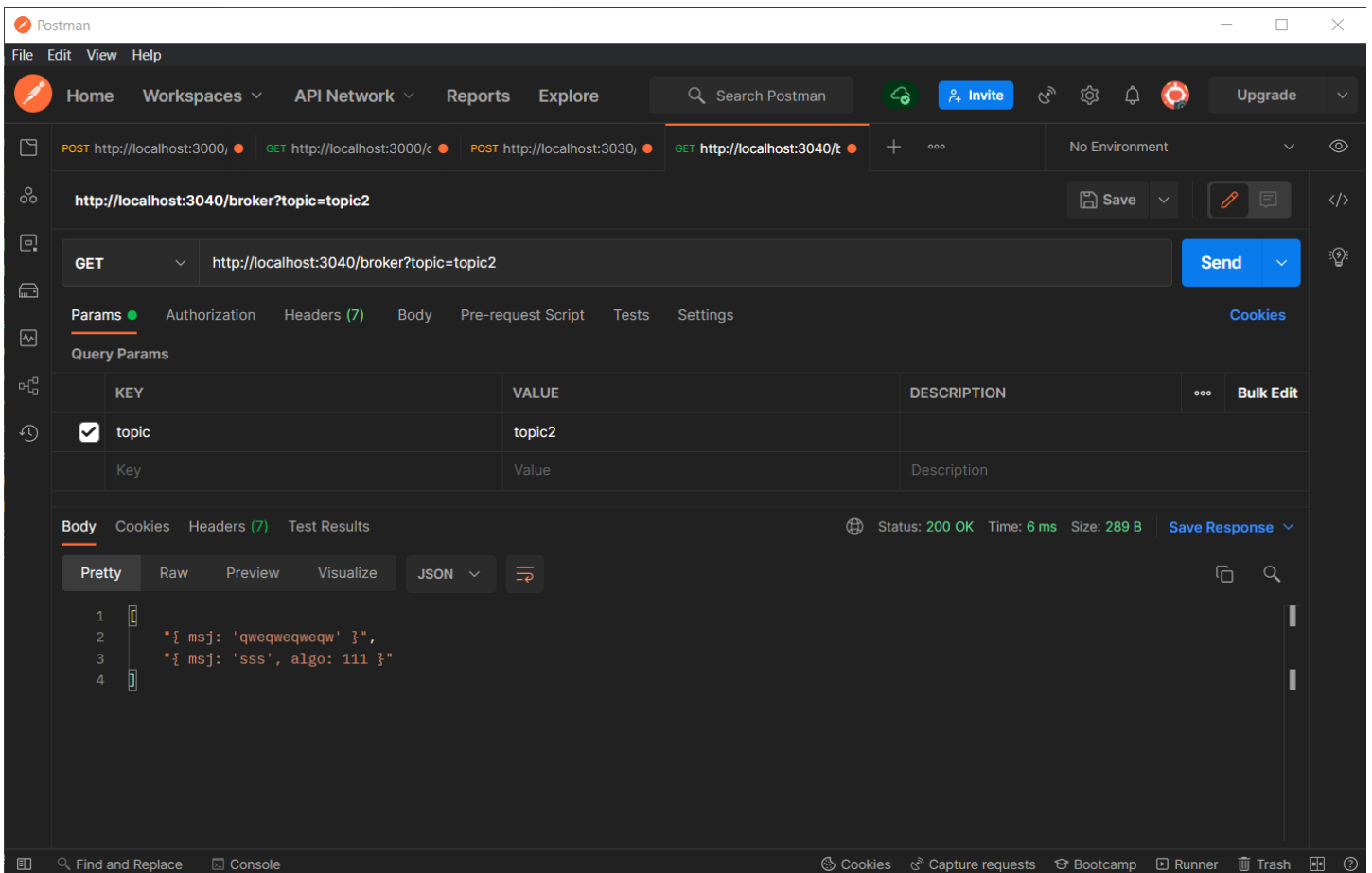
KEY	VALUE	DESCRIPTION	Bulk Edit
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Body Cookies Headers (7) Test Results Status: 200 OK Time: 21 ms Size: 419 B Save Response

Pretty Raw Preview Visualize JSON

```
1
2 "topic1": [
3   "{ msj: 'qweqweqweqw' }",
4   "{ msj: 'qweqweqweqw' }"
5 ],
6 "topic2": [
7   "{ msj: 'aaaaawwwaaaa' }",
8   "{ msj: 'qweqweqweqw' }",
9   "{ msj: 'sss', algo: 111 }"
10 ],
11 "topic": [
12   "aqui va un mensaje"
13 ]
14
```

Find and Replace Console Cookies Capture requests Bootcamp Runner Trash



-Trate de implementar el sistema de forma distribuida

Se conecta a un servidor donde está corriendo mosquitto.

```
Símbolo del sistema - mosquitto_sub -t test1 -v -h 18.221.93.248
C:\Program Files\mosquitto>mosquitto_sub -t test1 -v -h 18.221.93.248
test1 { msj: 'sss', algo: 111 }
test1 el tercer mensaje
test1 el 5 mensaje

Símbolo del sistema
C:\Program Files\mosquitto>mosquitto_pub -h 18.221.93.248 -t topic2 -m "{ msj: 'sss', algo: '111' }"
C:\Program Files\mosquitto>mosquitto_pub -h 18.221.93.248 -t test1 -m "{ msj: 'sss', algo: '111' }"
C:\Program Files\mosquitto>mosquitto_pub -h 18.221.93.248 -t test1 -m "el tercer mensaje"
C:\Program Files\mosquitto>mosquitto_pub -h 18.221.93.248 -t test2 -m "el cuarto mensaje"
C:\Program Files\mosquitto>mosquitto_pub -h 18.221.93.248 -t test1 -m "el 5 mensaje"
C:\Program Files\mosquitto>
```