

Meteb Almadi 200304

<https://github.com/metebalmadi/midterm2.git>

Q1:

```
C:\Users\meteb\OneDrive\Desktop\Midterm 2>docker run --publish 8008:80 --detach --name Meteb-200304 sebp/lighttpd:latest
557a522082f618af4845a9b1af1d1772733e9424ebab6ab269fd762796887120

C:\Users\meteb\OneDrive\Desktop\Midterm 2>
```

Q2:

```
C:\Users\meteb\OneDrive\Desktop\Midterm_2>docker run -d --name Meteb-200304 -v C:\Users\meteb\OneDrive\Desktop\Midterm_2:/var/www/localhost/htdocs sebp/lighttpd
da3c5195f78c7840d571bc857b0fb354dcfdb2dfc4f3f5c95a51ca1d8fd76d4

C:\Users\meteb\OneDrive\Desktop\Midterm_2>
```

Q3:



```
Go Run Terminal Help index.html - Midterm_2 - Visual Studio Code

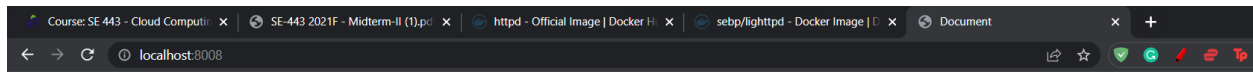
... <> index.html X

public_html > <> index.html > html > body > p
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <title>Title</title>
5 </head>
6 <body>
7   <p>This is the page of Meteb with ID: 200304</p>
8 </body>
9 </html>
```

Q4:

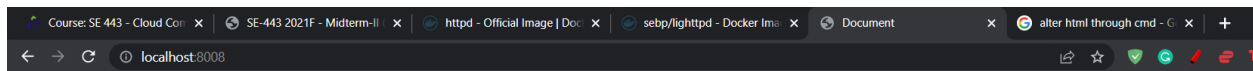
```
C:\Users\meteb\OneDrive\Desktop\Midterm_2>docker run --name web_server -d -p 8088:80 -v C:\Users\meteb\OneDrive\Desktop\Midterm_2\public_html:/var/www/local
host/htdocs sebp/lighttpd
175c269b822f7c7e41c51c8ca1196e4aef69af1416fac7cce27af9368a5273ef

C:\Users\meteb\OneDrive\Desktop\Midterm_2>
```



This is the page of Meteb Id: 200304

## After alter



This is the page of Meteb Id: 200304

This is an SE 443 Midterm exam page

Q5:

a)

```
C:\Users\meteb\OneDrive\Desktop\Midterm_2>docker images
```

REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
bulletinboard	1.0	360004a3beba	16 hours ago	264MB
metebalmadi/meme	latest	360004a3beba	16 hours ago	264MB
metebalmadi/memeee/bulletinboard	1.0	360004a3beba	16 hours ago	264MB
metebalmadi/memeee	latest	360004a3beba	16 hours ago	264MB
httpd	latest	8653efc8c72d	19 hours ago	145MB
ubuntu	latest	a8780b506fa4	13 days ago	77.8MB
metebalmadi/bulletinboard	1.0	0f4232cd09d4	2 weeks ago	264MB
metebalmadi/se_443_meteb/bulletinboard	1.0	0f4232cd09d4	2 weeks ago	264MB
metebalmadi/se_443_meteb/bulletinboard	latest	0f4232cd09d4	2 weeks ago	264MB
metebalmadi/se_443_meteb	1.0	0f4232cd09d4	2 weeks ago	264MB
metebalmadi/se_443_meteb	bulletinboard	0f4232cd09d4	2 weeks ago	264MB
nginx	latest	76c69feac34e	3 weeks ago	142MB
sebp/lighttpd	latest	fbbc9e0f56f7	4 months ago	9.54MB
hello-world	latest	feb5d9fea6a5	13 months ago	13.3kB

```
C:\Users\meteb\OneDrive\Desktop\Midterm_2>
```

b)

```
C:\Users\meteb\OneDrive\Desktop\Midterm_2>docker container ls
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
f89280db28b4	sebp/lighttpd	"start.sh"	About a minute ago	Up About a minute	0.0.0.0:8008->80/tcp	Meteb-200304-server

```
C:\Users\meteb\OneDrive\Desktop\Midterm_2>
```

c)

```
C:\Users\meteb\OneDrive\Desktop\Midterm_2>docker ps -a
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
d19e761528cc	sebp/lighttpd	"start.sh"	5 minutes ago	Exited (255) 5 minutes ago		web_server
da3c5195f78c	sebp/lighttpd	"start.sh"	10 minutes ago	Exited (255) 10 minutes ago		Meteb-200304
0b9b38088c63	nginx	"/docker-entrypoint..."	16 hours ago	Exited (0) 15 hours ago		my_nginx
35ee489c7a3c	hello-world	"/hello"	16 hours ago	Exited (0) 16 hours ago		my_world
83917839c322	hello-world	"/hello"	16 hours ago	Exited (0) 16 hours ago		my_worldddd
5540114e0abb	hello-world	"/hello"	16 hours ago	Exited (0) 16 hours ago		inspiring_greider
7c1293ecf8e3	ubuntu	"bash"	2 days ago	Exited (255) 17 hours ago		tender_neumann
fd3cc09e94ef	nginx	"/docker-entrypoint..."	9 days ago	Exited (255) 2 days ago	80/tcp	my_nginx
b418d4fe666b	0f4232cd09d4	"docker-entrypoint.s..."	2 weeks ago	Exited (255) 9 days ago	0.0.0.0:8000->8080/tcp	bb
654e47bf2ba7	hello-world	"/hello"	3 weeks ago	Exited (0) 3 weeks ago		quirky_lumiere

```
C:\Users\meteb\OneDrive\Desktop\Midterm_2>
```

Q6:

```
C:\Users\meteb\OneDrive\Desktop\Midterm_2>docker stop f112257493e6
f112257493e6
```

Q7:

```
C:\Users\meteb\OneDrive\Desktop\Midterm_2>docker rm f112257493e6
f112257493e6
```

Q8:

```
C:\Users\meteb\OneDrive\Desktop\Midterm_2>docker stack deploy -c docker-compose.yml se-443
Creating network se-443_webnet
Creating service se-443_web

C:\Users\meteb\OneDrive\Desktop\Midterm_2>docker container ls
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS          NAMES
pjnnmq34ero    se-443_web     replicated              0/5           sebp/lighttpd:latest  *:8008->80/tcp

C:\Users\meteb\OneDrive\Desktop\Midterm_2>docker service ls
ID              NAME          MODE                REPLICAS        IMAGE          PORTS
pjnnmq34ero    se-443_web    replicated          0/5             sebp/lighttpd:latest  *:8008->80/tcp
```

Q9:

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL JUPYTER

Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\meteb\OneDrive\Desktop\Midterm_2> python .\mqtt_pub.py
Connected successfully to 10.20.1.95
Published in se443/midterm2, msg = {"StudentID": 200304, "Name": "Meteb", "Surname": "Almadi", "Telephone": "0554271113", "Grade": 100}
PS C:\Users\meteb\OneDrive\Desktop\Midterm_2>

PS C:\Users\meteb\OneDrive\Desktop\Midterm_2> python .\mqtt_sub.py
connecting to broker 10.20.1.95
subscribing
y['StudentID'] = 200304
y['Name'] = Meteb
y['Surname'] = Almadi
y['Telephone'] = 0554271113
y['Grade'] = 100
[]
```

Publisher:

```
import paho.mqtt.client as mqtt
import json

# broker_address="localhost"
broker_address = "10.20.1.95"
```

```

# This is the Publisher
client = mqtt.Client()
topic = "se443/midterm2"

x = { "StudentID":200304, "Name":"Meteb", "Surname":"Almadi",
"Telephone":"0554271113", "Grade": 100}

y = json.dumps(x)

message = y

# message = "Hello from George V's Python client..."
if (client.connect(broker_address,1883,60) ==0):
    print ("Connected succesfully to "+broker_address)

client.publish(topic, message)
print ("Published in "+topic+", msg = "+message)
client.disconnect();

```

Subscriber:

```

import time
import paho.mqtt.client as paho
import json

# broker = "localhost"
broker = "10.20.1.95"

#broker="iot.eclipse.org"
#define callback
def on_message(client, userdata, message):
    time.sleep(1)
    y = json.loads(str(message.payload.decode("utf-8")))
    print("y['StudentID']=", y["StudentID"])
    print("y['Name']=", y["Name"])
    print("y['Surname']=", y["Surname"])
    print("y['Telephone']=", y["Telephone"])
    print("y['Grade']=", y["Grade"])

```

```
client= paho.Client()
client.on_message = on_message
print("connecting to broker ",broker)
client.connect(broker)#connect
client.loop_start() #start loop to process received messages
print("subscribing ")
client.subscribe("se443/midterm2")#subscribe
while(True):
    client.on_message=on_message
```