WEB SERVER USING DOCKER

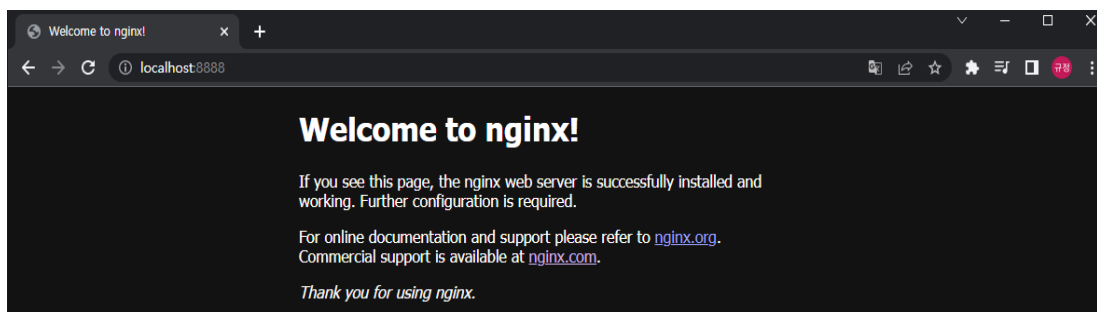|			
제출일	2022.09.14	**전공**	컴퓨터공학과
과목	컴퓨터네트워크(02)	**학번**	201602037
담당교수	이영석 교수님	**이름**	이규정

① Docker 설치 완료 스크린샷
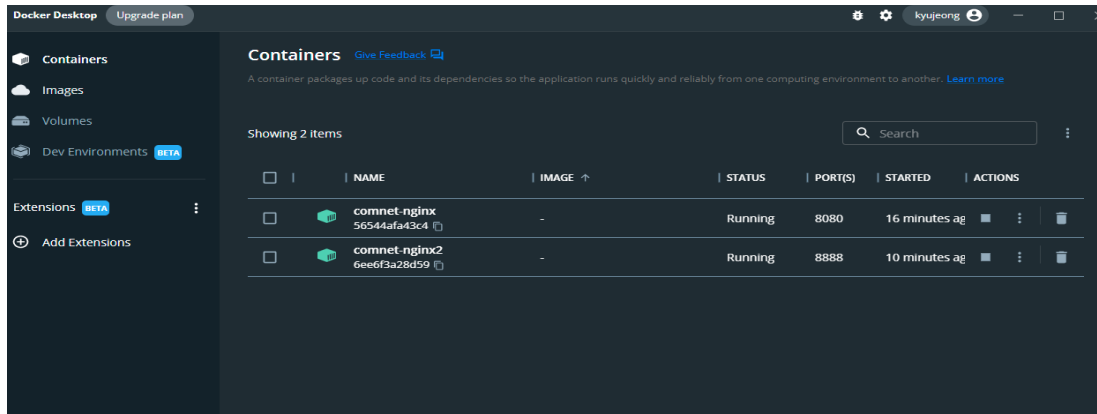
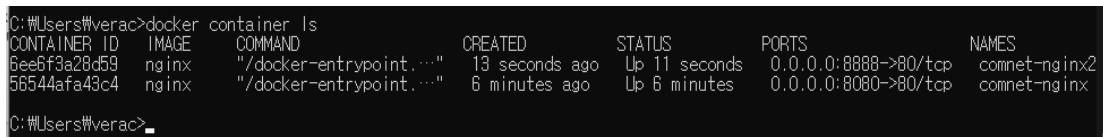# ② Run nginx container 완료 스크린샷

1. Port : 8080 maping
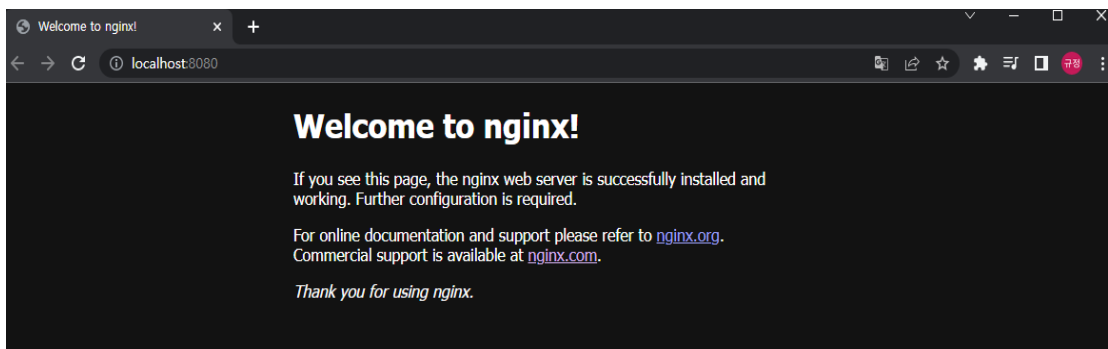
2. Port : 8888 maping

3. Run

③ Wireshark HTTP 캡쳐 스크린샷

*노트북에서 wireshark에서 docker 인터페이스가 나타나지않아 이더넷으로 캡쳐 후, 휴대폰으로 외부연결 한 것을 캡쳐 하였습니다.

1. port: 8080

No.	Time	Source	Destination	Protocol	Length	Info
205	22.858890	192.168.1.252	192.168.1.165	TCP	78	55526 → 8080 [SYN] Se
206	22.858890	192.168.1.252	224.0.0.251	MDNS	368	Standard query respon
207	22.858890	fe80::18f9:cc5e:e2a…	ff02::fb	MDNS	388	Standard query respon
208	22.859700	192.168.1.165	192.168.1.252	TCP	66	8080 → 55526 [SYN, AC
209	22.863719	192.168.1.252	192.168.1.165	TCP	60	55526 → 8080 [ACK] Se
210	22.864111	192.168.1.252	192.168.1.165	HTTP	443	GET / HTTP/1.1
211	22.872972	192.168.1.165	192.168.1.252	HTTP	907	HTTP/1.1 200 OK (tex

```
> Frame 210: 443 bytes on wire (3544 bits), 443 bytes captured (3544 bits) on interface \Device\NPF_
> Ethernet II, Src: 6a:c5:b7:75:5e:fe (6a:c5:b7:75:5e:fe), Dst: ASIXElec_04:17:64 (f8:e4:3b:04:17:64
> Internet Protocol Version 4, Src: 192.168.1.252, Dst: 192.168.1.165
> Transmission Control Protocol, Src Port: 55526, Dst Port: 8080, Seq: 1, Ack: 1, Len: 389
∨ Hypertext Transfer Protocol
  > GET / HTTP/1.1\r\n
    Host: 192.168.1.165:8080\r\n
    Upgrade-Insecure-Requests: 1\r\n
    Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8\r\n
    User-Agent: Mozilla/5.0 (iPhone; CPU iPhone OS 15_6_1 like Mac OS X) AppleWebKit/605.1.15 (KHTM)
    Accept-Language: ko-KR,ko;q=0.9\r\n
    Accept-Encoding: gzip, deflate\r\n
    Connection: keep-alive\r\n
    \r\n
    [Full request URI: http://192.168.1.165:8080/]
    [HTTP request 1/1]
    [Response in frame: 211]
```


No.	Time	Source	Destination	Protocol	Length	Info
205	22.858890	192.168.1.252	192.168.1.165	TCP	78	55526 → 8080 [SYN] Seq=0 Win=655
206	22.858890	192.168.1.252	224.0.0.251	MDNS	368	Standard query response 0x0000 T
207	22.858890	fe80::18f9:cc5e:e2a…	ff02::fb	MDNS	388	Standard query response 0x0000 T
208	22.859700	192.168.1.165	192.168.1.252	TCP	66	8080 → 55526 [SYN, ACK] Seq=0 Ac
209	22.863719	192.168.1.252	192.168.1.165	TCP	60	55526 → 8080 [ACK] Seq=1 Ack=1 W
210	22.864111	192.168.1.252	192.168.1.165	HTTP	443	GET / HTTP/1.1
211	22.872972	192.168.1.165	192.168.1.252	HTTP	907	HTTP/1.1 200 OK (text/html)

```
> Frame 211: 907 bytes on wire (7256 bits), 907 bytes captured (7256 bits) on interface \Device\NPF_{3689D340-0
> Ethernet II, Src: ASIXElec_04:17:64 (f8:e4:3b:04:17:64), Dst: 6a:c5:b7:75:5e:fe (6a:c5:b7:75:5e:fe)
> Internet Protocol Version 4, Src: 192.168.1.165, Dst: 192.168.1.252
> Transmission Control Protocol, Src Port: 8080, Dst Port: 55526, Seq: 1, Ack: 390, Len: 853
∨ Hypertext Transfer Protocol
  > HTTP/1.1 200 OK\r\n
    Server: nginx/1.23.1\r\n
    Date: Tue, 13 Sep 2022 14:47:20 GMT\r\n
    Content-Type: text/html\r\n
  > Content-Length: 615\r\n
    Last-Modified: Tue, 19 Jul 2022 14:05:27 GMT\r\n
    Connection: keep-alive\r\n
    ETag: "62d6ba27-267"\r\n
    Accept-Ranges: bytes\r\n
    \r\n
    [HTTP response 1/1]
    [Time since request: 0.008861000 seconds]
    [Request in frame: 210]
    [Request URI: http://192.168.1.165:8080/]
    File Data: 615 bytes
∨ Line-based text data: text/html (23 lines)
    <!DOCTYPE html>\n
    <html>\n
    <head>\n
    <title>Welcome to nginx!</title>\n
    <style>\n
    html { color-scheme: light dark; }\n
    body { width: 35em; margin: 0 auto;\n
    font-family: Tahoma, Verdana, Arial, sans-serif; }\n
    </style>\n
    </head>\n
    <body>\n
    <h1>Welcome to nginx!</h1>\n
```

2. port: 8888

No.	Time	Source	Destination	Protocol	Length	Info
31	4.551240	192.168.1.252	192.168.1.165	TCP	78	55534 → 8888 [SYN] Seq=0 Win=65535 Len=0 M
32	4.551491	192.168.1.165	192.168.1.252	TCP	66	8888 → 55534 [SYN, ACK] Seq=0 Ack=1 Win=65
33	4.554679	192.168.1.252	192.168.1.165	TCP	60	55534 → 8888 [ACK] Seq=1 Ack=1 Win=262144
34	4.559892	192.168.1.252	192.168.1.165	HTTP	443	GET / HTTP/1.1
35	4.562158	192.168.1.165	192.168.1.252	HTTP	907	HTTP/1.1 200 OK (text/html)
36	4.565412	192.168.1.252	192.168.1.165	TCP	60	55534 → 8888 [ACK] Seq=390 Ack=854 Win=261
37	4.659543	192.168.1.252	192.168.1.165	TCP	78	55535 → 8888 [SYN] Seq=0 Win=65535 Len=0 M
38	4.660139	192.168.1.165	192.168.1.252	TCP	66	8888 → 55535 [SYN, ACK] Seq=0 Ack=1 Win=65

> Frame 34: 443 bytes on wire (3544 bits), 443 bytes captured (3544 bits) on interface \Device\NPF_{3689D340-0B57-4EAA-9
> Ethernet II, Src: 6a:c5:b7:75:5e:fe (6a:c5:b7:75:5e:fe), Dst: ASIXElec_04:17:64 (f8:e4:3b:04:17:64)
> Internet Protocol Version 4, Src: 192.168.1.252, Dst: 192.168.1.165
> Transmission Control Protocol, Src Port: 55534, Dst Port: 8888, Seq: 1, Ack: 1, Len: 389
∨ Hypertext Transfer Protocol
   > GET / HTTP/1.1\r\n
    Host: 192.168.1.165:8888\r\n
    Upgrade-Insecure-Requests: 1\r\n
    Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8\r\n
    User-Agent: Mozilla/5.0 (iPhone; CPU iPhone OS 15_6_1 like Mac OS X) AppleWebKit/605.1.15 (KHTML, like Gecko) Versio
    Accept-Language: ko-KR,ko;q=0.9\r\n
    Accept-Encoding: gzip, deflate\r\n
    Connection: keep-alive\r\n
    \r\n
    [Full request URI: http://192.168.1.165:8888/]
    [HTTP request 1/1]
    [Response in frame: 35]

No.	Time	Source	Destination	Protocol	Length	Info
31	4.551240	192.168.1.252	192.168.1.165	TCP	78	55534 → 8888 [SYN] Seq=0 Win=65535 Le
32	4.551491	192.168.1.165	192.168.1.252	TCP	66	8888 → 55534 [SYN, ACK] Seq=0 Ack=1 W
33	4.554679	192.168.1.252	192.168.1.165	TCP	60	55534 → 8888 [ACK] Seq=1 Ack=1 Win=26
34	4.559892	192.168.1.252	192.168.1.165	HTTP	443	GET / HTTP/1.1
35	4.562158	192.168.1.165	192.168.1.252	HTTP	907	HTTP/1.1 200 OK (text/html)
36	4.565412	192.168.1.252	192.168.1.165	TCP	60	55534 → 8888 [ACK] Seq=390 Ack=854 Wi
37	4.659543	192.168.1.252	192.168.1.165	TCP	78	55535 → 8888 [SYN] Seq=0 Win=65535 Le
38	4.660139	192.168.1.165	192.168.1.252	TCP	66	8888 → 55535 [SYN, ACK] Seq=0 Ack=1 W

> Frame 35: 907 bytes on wire (7256 bits), 907 bytes captured (7256 bits) on interface \Device\NPF_{3689D340-0B57-4
> Ethernet II, Src: ASIXElec_04:17:64 (f8:e4:3b:04:17:64), Dst: 6a:c5:b7:75:5e:fe (6a:c5:b7:75:5e:fe)
> Internet Protocol Version 4, Src: 192.168.1.165, Dst: 192.168.1.252
> Transmission Control Protocol, Src Port: 8888, Dst Port: 55534, Seq: 1, Ack: 390, Len: 853
∨ Hypertext Transfer Protocol
   > HTTP/1.1 200 OK\r\n
    Server: nginx/1.23.1\r\n
    Date: Tue, 13 Sep 2022 14:57:33 GMT\r\n
    Content-Type: text/html\r\n
   > Content-Length: 615\r\n
    Last-Modified: Tue, 19 Jul 2022 14:05:27 GMT\r\n
    Connection: keep-alive\r\n
    ETag: "62d6ba27-267"\r\n
    Accept-Ranges: bytes\r\n
    \r\n
    [HTTP response 1/1]
    [Time since request: 0.002266000 seconds]
    [Request in frame: 34]
    [Request URI: http://192.168.1.165:8888/]
    File Data: 615 bytes
∨ Line-based text data: text/html (23 lines)
    <!DOCTYPE html>\n
    <html>\n
    <head>\n
    <title>Welcome to nginx!</title>\n
    <style>\n
    html { color-scheme: light dark; }\n
    body { width: 35em; margin: 0 auto;\n
    font-family: Tahoma, Verdana, Arial, sans-serif; }\n
    </style>\n