

오픈소스기초설계 – Assignment#4 Docker 실습 과제

실습 내용:

실습 #1:

```
C:\Users\qortj>docker run hello-world
Unable to find image 'hello-world:latest' locally
latest: Pulling from library/hello-world
719385e32844: Pull complete
Digest: sha256:c79d06dfd3d3eb04cafd0dc2bacab0992ebc243e083cabe208bac4dd7759e0
Status: Downloaded newer image for hello-world:latest

Hello from Docker!
This message shows that your installation appears to be working correctly.

To generate this message, Docker took the following steps:
1. The Docker client contacted the Docker daemon.
2. The Docker daemon pulled the "hello-world" image from the Docker Hub.
   (amd64)
3. The Docker daemon created a new container from that image which runs the
   executable that produces the output you are currently reading.
4. The Docker daemon streamed that output to the Docker client, which sent it
   to your terminal.

To try something more ambitious, you can run an Ubuntu container with:
$ docker run -it ubuntu bash

Share images, automate workflows, and more with a free Docker ID:
https://hub.docker.com/

For more examples and ideas, visit:
https://docs.docker.com/get-started/
```

버전 확인, 기능 테스트를 완료하였다.

실습 #2:

```
root@a868bb649e88:/# exit
exit

C:\Users\qortj>docker ps -a
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS              PORTS          NAMES
a868bb649e88   ubuntu:20.04   "/bin/bash"             27 minutes ago Exited (0) 15 seconds ago           Ubuntu20
e5c982cee611   hello-world    "/hello"                 44 minutes ago Exited (0) 44 minutes ago           adoring_gagarin

C:\Users\qortj>docker start a868bb649e88
a868bb649e88

C:\Users\qortj>docker attach a868bb649e88
root@a868bb649e88:/# python test.py
hello docker
root@a868bb649e88:/#
```

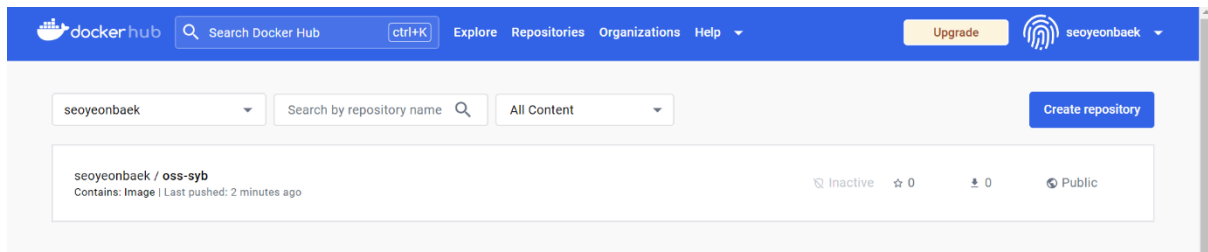
exit을 이용하여 root에서 벗어난 뒤, ps -a로 현재 파일 현황을 살펴보고 다시 root로 진입하여 test.py 파일 내용을 살펴보는 코드를 작성하였다.

실습 #3:

```
C:\Users\qortj>docker tag oss-syb_ex4 seoyeonbaek/oss-syb:1.0

C:\Users\qortj>docker push seoyeonbaek/oss-syb:1.0
The push refers to repository [docker.io/seoyeonbaek/oss-syb]
0d66848aac79: Pushed
6c3e7df31590: Mounted from library/ubuntu
1.0: digest: sha256:e7dd1e8a50b8bd933a1488e98653b221243d9e5edd4cf14ab4fc2beecdde6b71 size: 741

C:\Users\qortj>
```



도커 환경을 배포하기 위한 코드를 입력하였다. tag, push 코드를 이용하여 repository에 파일을 push하였다.

실습 #4:

```
C:\Users\qortj>docker run -it --name Ubuntu20 seoyeonbaek/oss-syb:1.0
root@3dc357645823:/# python test.py
hello docker
root@3dc357645823:/# exit
exit

C:\Users\qortj>
```

앞서 배포한 도커 환경을 run -it --name을 이용하여 검증하였다.

실습 #5:

```
C:\Users\qortj\docker>docker build -t oss-syb .
2023/11/23 22:50:12 http: server: error reading preface from client //./pipe/docker_engine: file has already been closed
[*] Building 100.0s (9/9) FINISHED
=> [internal] load build definition from Dockerfile
=> => transferring dockerfile: 188B
=> [internal] load .dockerignore
=> => transferring context: 2B
=> [internal] load metadata for docker.io/library/ubuntu:20.04
=> [auth] library/ubuntu:pull token for registry-1.docker.io
=> [1/4] FROM docker.io/library/ubuntu:20.04@sha256:ed4a42283d9943135ed87d4ee34e542f7f5ad9ecf2f244870e23122f703f91c2
=> => resolve docker.io/library/ubuntu:20.04@sha256:ed4a42283d9943135ed87d4ee34e542f7f5ad9ecf2f244870e23122f703f91c2
=> => sha256:ed4a42283d9943135ed87d4ee34e542f7f5ad9ecf2f244870e23122f703f91c2 1.13kB / 1.13kB
=> => sha256:218bb51abbd1864d4f8be26166f847547b3851a89999ca7bfc8b85ca9b5d2e95d 424B / 424B
=> => sha256:b4f0b7bc7a11b43785755d3c5f23dee03b08e988b327a2f10b22d01d5dc5259d 2.30kB / 2.30kB
=> [2/4] RUN apt update && apt install -y python
=> [3/4] RUN echo "print('hello docker!')" > test.py
=> [4/4] RUN chmod 775 test.py
=> exporting to image
=> => exporting layers
=> => writing image sha256:72011f116759fe250d2f673f9d83d9ef96df323bd335539c757babe820010881
=> => naming to docker.io/library/oss-syb

What's Next?
View a summary of image vulnerabilities and recommendations → docker scout quickview

C:\Users\qortj\docker>docker run oss-syb
hello docker

C:\Users\qortj\docker>
```

Dockerfile를 활용하였다. build -t, docker run코드를 이용하여 docker repository에 있는 파일의 내용을 열람하였다.