Docker Practice

(1) Create docker hub account – Sign Up Free

a. https://hub.docker.com

(2) Install Docker

a. sudo apt update
b. sudo apt install apt-transport-https ca-certificates curl software-properties-common
c. curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo apt-key add –
d. sudo add-apt-repository "deb [arch=amd64] https://download.docker.com/linux/ubuntu bionic stable"
e. sudo apt update
f. apt-cache policy docker-ce
g. sudo apt install docker-ce
h. sudo chmod 666 /var/run/docker.sock
i. sudo systemctl status docker

(3) Executing docker commands

a. docker – lists all commands
b. docker <commands> --help
c. docker info

(4) Working with docker images

a. docker run hello-world
b. docker search ubuntu
c. docker pull ubuntu
d. docker images

(5) Running a docker container

a. Run a container using the latest image of Ubuntu. The combination of the **-i** and **-t** switches gives you interactive shell access into the container:
   i. docker run -it ubuntu
      1. Inside docker – apt update, apt install nodejs, node -v

(6) Managing docker containers

a. docker ps

b. docker ps -a

c. docker ps -l

d. docker start <container_id>

e. docker stop <name>

f. docker rm <name>

(7) Committing your changes to docker image

a. docker commit -m "added Node.js" -a "sammy" d9b100f2f636 sammy/ubuntu-nodejs

b. docker images

(8) Pushing docker images to a Docker repository

a. docker login -u docker-registry-username

b. Enter password at prompt

c. docker push docker-registry-username/docker-image-name

  i. docker push sammy/ubuntu-nodejs

d. Check in docker hub for this image from Browser

(9) Create a docker file and build docker image

```
# Add below lines to a file named - Dockerfile
FROM node:12-alpine
RUN apk add --no-cache python g++ make
WORKDIR /app
COPY . .
RUN yarn install --production

CMD ["node", "src/index.js"]
```

- Run below commands to build a docker image from above Dockerfile

```
$ docker build -t yourusername/my_trng_repo  .
$ docker images
$ docker run -p80:80 yourusername/my_trng_repo
```