

CS571

Mansi Shah(19526)

Week 3

2.1. Creating running and sharing a container image

1. Create the app
 - a. Creating a trivial Node.js app
 - b. Creating a Docker file for the image
2. Building the container image
3. Running the container image

```
cs571@ubuntu:~$ ls
app.js  Documents  examples.desktop  Music  Public  Videos
Desktop Downloads  minikube         Pictures Templates
cs571@ubuntu:~$ cd app_js
cs571@ubuntu:~/app_js$ ls
app.js  Dockerfile
cs571@ubuntu:~/app_js$ docker ps
CONTAINER ID        IMAGE               COMMAND             CREATED             STATUS
PORTS              NAMES
cs571@ubuntu:~/app_js$ docker images
REPOSITORY          TAG                 IMAGE ID            CREATED             SIZE
kubia                latest             fac6faaace7c        3 days ago         660MB
ubuntu              latest             ccc6e87d482b        2 weeks ago         64.2MB
hello-world         latest             fce289e99eb9        13 months ago       1.84kB
node                 7                  d9aed20b68a4        2 years ago         660MB
cs571@ubuntu:~/app_js$
cs571@ubuntu:~/app_js$ docker run --name kubia-container -p 8080:8080 -d kubia
b306ce41855c417f61e83e49cc3e54ba91348183a62041d2481d2f810ffb2b32
cs571@ubuntu:~/app_js$ curl localhost:8080
You've hit b306ce41855c
cs571@ubuntu:~/app_js$ docker ps
CONTAINER ID        IMAGE               COMMAND             CREATED             STATUS
PORTS              NAMES
b306ce41855c        kubia               "node app.js"       2 minutes ago       Up About a minut
e 0.0.0.0:8080->8080/tcp  kubia-container
```

Exploring the inside of a running container

```
cs571@ubuntu:~/app_js$ docker exec -it kubia-container bash
root@b306ce41855c:/# ps aux
USER      PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
root         1  0.0  0.6 614432 25804 ?        Ssl   01:39   0:00 node app.js
root        11  1.4  0.0  20244  3160 pts/0    Ss    02:08   0:00 bash
root        17  0.0  0.0  17500  2036 pts/0    R+    02:08   0:00 ps aux
root@b306ce41855c:/# ps aux | grep app.js
root         1  0.0  0.6 614432 25808 ?        Ssl   01:39   0:00 node app.js
root@b306ce41855c:/# ls /
app.js  boot  etc  lib  media  opt  root  sbin  sys  usr
bin  dev  home  lib64  mnt  proc  run  srv  tmp  var
root@b306ce41855c:/# cd -
bash: cd: OLDPWD not set
root@b306ce41855c:/# cd ~
root@b306ce41855c:~# ls
root@b306ce41855c:~# cd /m
media/ mnt/
root@b306ce41855c:~# cd /mnt/
root@b306ce41855c:/mnt# ls
root@b306ce41855c:/mnt# cd
```

Pushing the image to an image registry

```
root@b306ce41855c:~# cd /mnt/
root@b306ce41855c:/mnt# ls
root@b306ce41855c:/mnt# cd
root@b306ce41855c:~# ls
root@b306ce41855c:~# exit
exit
cs571@ubuntu:~/app_js$ docker login
Login with your Docker ID to push and pull images from Docker Hub. If you don't have a Docker ID
, head over to https://hub.docker.com to create one.
Username: mansi2210
Password:
Error response from daemon: Get https://registry-1.docker.io/v2/: unauthorized: incorrect userna
me or password
cs571@ubuntu:~/app_js$ docker login
Login with your Docker ID to push and pull images from Docker Hub. If you don't have a Docker ID
, head over to https://hub.docker.com to create one.
Username: mansi2210
Password:
WARNING! Your password will be stored unencrypted in /home/cs571/.docker/config.json.
Configure a credential helper to remove this warning. See
https://docs.docker.com/engine/reference/commandline/login/#credentials-store

Login Succeeded
cs571@ubuntu:~/app_js$ docker images
REPOSITORY          TAG                 IMAGE ID            CREATED             SIZE
kubia                latest             fac6faaace7c        3 days ago         660MB
ubuntu              latest             ccc6e87d482b        2 weeks ago         64.2MB
hello-world         latest             fce289e99eb9        13 months ago       1.84kB
node                 7                 d9aed20b68a4        2 years ago         660MB
cs571@ubuntu:~/app_js$ docker tag kubia mansi2210/shahm888:kubia
cs571@ubuntu:~/app_js$ docker images
```

```
cs571@ubuntu:~/app_js$ docker images
REPOSITORY          TAG                 IMAGE ID            CREATED             SIZE
kubia                latest             fac6faaace7c        3 days ago         660MB
mansi2210/shahm888  kubia              fac6faaace7c        3 days ago         660MB
ubuntu              latest             ccc6e87d482b        2 weeks ago         64.2MB
hello-world         latest             fce289e99eb9        13 months ago       1.84kB
node                 7                 d9aed20b68a4        2 years ago         660MB
cs571@ubuntu:~/app_js$ docker push mansi2210/shahm888:kubia
The push refers to repository [docker.io/mansi2210/shahm888]
1a4f4058d2f1: Pushed
ab90d83fa34a: Mounted from library/node
8ee318e54723: Mounted from library/node
e6695624484e: Mounted from library/node
da59b99bbd3b: Mounted from library/node
5616a6292c16: Mounted from library/node
f3ed6cb59ab0: Mounted from library/node
654f45ecb7e3: Mounted from library/node
2c40c66f7667: Mounted from library/node
kubia: digest: sha256:9f9db172611d8815d5a73def458a3390664a48b18cd707b6c508bbd54e7abf4 size: 221
3
cs571@ubuntu:~/app_js$
```

Here , is the screen sort of Dockerhub

