theia@theiadocker-gauravbhola:/home/project$

theia@theiadocker-gauravbhola:/home/project$ docker --version

Docker version 19.03.6, build 369ce74a3c

theia@theiadocker-gauravbhola:/home/project$ ibmcloud version

ibmcloud version 1.3.0+4308925-2020-12-16T07:53:49+00:00

theia@theiadocker-gauravbhola:/home/project$ pwd

/home/project

theia@theiadocker-gauravbhola:/home/project$ git clone https://gitlab.com/ibm/skills-network/courses/cc201.git

Cloning into 'cc201'...

remote: Enumerating objects: 970, done.

remote: Counting objects: 100% (953/953), done.

remote: Compressing objects: 100% (396/396), done.

remote: Total 970 (delta 554), reused 933 (delta 543), pack-reused 17

Receiving objects: 100% (970/970), 6.88 MiB | 22.96 MiB/s, done.

Resolving deltas: 100% (559/559), done.

theia@theiadocker-gauravbhola:/home/project$ cd cc201/labs/1\_ContainersAndDocker/theia@theiadocker-gauravbhola:/home/project/cc201/labs/1\_ContainersAndDocker$ ls

app.js Dockerfile images instructions.md package.json

theia@theiadocker-gauravbhola:/home/project/cc201/labs/1\_ContainersAndDocker$ docker images

REPOSITORY TAG IMAGE ID CREATED SIZE

theia@theiadocker-gauravbhola:/home/project/cc201/labs/1\_ContainersAndDocker$ docker ps

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

theia@theiadocker-gauravbhola:/home/project/cc201/labs/1\_ContainersAndDocker$ docker ps -a

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

theia@theiadocker-gauravbhola:/home/project/cc201/labs/1\_ContainersAndDocker$ docker pull hello-world

Using default tag: latest

latest: Pulling from library/hello-world

b8dfde127a29: Pull complete

Digest: sha256:9f6ad537c5132bcce57f7a0a20e317228d382c3cd61edae14650eec68b2b345c

Status: Downloaded newer image for hello-world:latest

docker.io/library/hello-world:latest

theia@theiadocker-gauravbhola:/home/project/cc201/labs/1\_ContainersAndDocker$ docker iamges

docker: 'iamges' is not a docker command.

See 'docker --help'

theia@theiadocker-gauravbhola:/home/project/cc201/labs/1\_ContainersAndDocker$ docker images

REPOSITORY TAG IMAGE ID CREATED SIZE

hello-world latest d1165f221234 3 months ago 13.3kB

theia@theiadocker-gauravbhola:/home/project/cc201/labs/1\_ContainersAndDocker$ docker run -d hello-world

6b08cb9b4aaa37f60867624b00eac624d516a1fd738f92d954a1571e09bc1ca7

theia@theiadocker-gauravbhola:/home/project/cc201/labs/1\_ContainersAndDocker$ docker ps

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

theia@theiadocker-gauravbhola:/home/project/cc201/labs/1\_ContainersAndDocker$ docker ps -a

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

6b08cb9b4aaa hello-world "/hello" 13 seconds ago Exited (0) 10 seconds ago cocky\_brahmagupta

theia@theiadocker-gauravbhola:/home/project/cc201/labs/1\_ContainersAndDocker$ docker rm 6b08cb9b4aaa

6b08cb9b4aaa

theia@theiadocker-gauravbhola:/home/project/cc201/labs/1\_ContainersAndDocker$ docker ps

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

theia@theiadocker-gauravbhola:/home/project/cc201/labs/1\_ContainersAndDocker$ docker ps -a

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

theia@theiadocker-gauravbhola:/home/project/cc201/labs/1\_ContainersAndDocker$ ls

app.js Dockerfile images instructions.md package.json

theia@theiadocker-gauravbhola:/home/project/cc201/labs/1\_ContainersAndDocker$ docker build . -t myimage:v1

Sending build context to Docker daemon 517.6kB

Step 1/6 : FROM node:9.4.0-alpine

9.4.0-alpine: Pulling from library/node

605ce1bd3f31: Pull complete

fe58b30348fe: Pull complete

46ef8987ccbd: Pull complete

Digest: sha256:9cd67a00ed111285460a83847720132204185e9321ec35dacec0d8b9bf674adf

Status: Downloaded newer image for node:9.4.0-alpine

---> b5f94997f35f

Step 2/6 : COPY app.js .

---> 4baa5549bbec

Step 3/6 : COPY package.json .

---> e26b06a3554d

Step 4/6 : RUN npm install && apk update && apk upgrade

---> Running in 15ab5daac7bf

npm notice created a lockfile as package-lock.json. You should commit this file.

npm WARN hello-world-demo@0.0.1 No repository field.

npm WARN hello-world-demo@0.0.1 No license field.

added 50 packages in 1.851s

fetch http://dl-cdn.alpinelinux.org/alpine/v3.6/main/x86\_64/APKINDEX.tar.gz

fetch http://dl-cdn.alpinelinux.org/alpine/v3.6/community/x86\_64/APKINDEX.tar.gz

v3.6.5-44-gda55e27396 [http://dl-cdn.alpinelinux.org/alpine/v3.6/main]

v3.6.5-34-gf0ba0b43d5 [http://dl-cdn.alpinelinux.org/alpine/v3.6/community]

OK: 8448 distinct packages available

Upgrading critical system libraries and apk-tools:

(1/1) Upgrading apk-tools (2.7.5-r0 -> 2.7.6-r0)

Executing busybox-1.26.2-r9.trigger

Continuing the upgrade transaction with new apk-tools:

(1/7) Upgrading musl (1.1.16-r14 -> 1.1.16-r15)

(2/7) Upgrading busybox (1.26.2-r9 -> 1.26.2-r11)

Executing busybox-1.26.2-r11.post-upgrade

(3/7) Upgrading libressl2.5-libcrypto (2.5.5-r0 -> 2.5.5-r2)

(4/7) Upgrading libressl2.5-libssl (2.5.5-r0 -> 2.5.5-r2)

(5/7) Installing libressl2.5-libtls (2.5.5-r2)

(6/7) Installing ssl\_client (1.26.2-r11)

(7/7) Upgrading musl-utils (1.1.16-r14 -> 1.1.16-r15)

Executing busybox-1.26.2-r11.trigger

OK: 5 MiB in 15 packages

Removing intermediate container 15ab5daac7bf

---> ee8afe4bdb45

Step 5/6 : EXPOSE 8080

---> Running in 8d6ea59d8ae9

Removing intermediate container 8d6ea59d8ae9

---> e1ef5fe38e6e

Step 6/6 : CMD node app.js

---> Running in 5f6d28c1ac79

Removing intermediate container 5f6d28c1ac79

---> 9fcf805e474a

Successfully built 9fcf805e474a

Successfully tagged myimage:v1

theia@theiadocker-gauravbhola:/home/project/cc201/labs/1\_ContainersAndDocker$ docker imagesREPOSITORY TAG IMAGE ID CREATED SIZE

myimage v1 9fcf805e474a About a minute ago 76.2MB

hello-world latest d1165f221234 3 months ago 13.3kB

node 9.4.0-alpine b5f94997f35f 3 years ago 68MB

theia@theiadocker-gauravbhola:/home/project/cc201/labs/1\_ContainersAndDocker$ docker run -p 8080:8080 myimage:v1

theia@theiadocker-gauravbhola:/home/project$ docker ps

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

73025a866eda myimage:v1 "/bin/sh -c 'node ap…" 2 minutes ago Up 2 minutes 0.0.0.0:8080->8080/tcp vibrant\_diffie

theia@theiadocker-gauravbhola:/home/project$ curl localhost:8080

Hello world from 73025a866eda! Your app is up and running!

theia@theiadocker-gauravbhola:/home/project$ docker stop $(docker ps -q)

73025a866eda

The following command will give you information about the account you're targeting:

theia@theiadocker-gauravbhola:/home/project$ ibmcloud target

API endpoint: https://cloud.ibm.com

Region: us-south

User: ServiceId-062e1fdb-9b39-4882-82d7-35b462914cc4

Account: QuickLabs - IBM Skills Network (f672382e1b43496b83f7a82fd31a59e8)

Resource group: No resource group targeted, use 'ibmcloud target -g RESOURCE\_GROUP'

CF API endpoint:

Org:

Space:

1. The environment also created an IBM Cloud Container Registry (ICR) namespace for you. Since Container Registry is multi-tenant, namespaces are used to divvy up the registry among several users. Use the following command to see the namespaces you have access to:

theia@theiadocker-gauravbhola:/home/project$ ibmcloud cr namespaces

Listing namespaces for account 'QuickLabs - IBM Skills Network' in registry 'us.icr.io'...

Namespace

sn-labs-gauravbhola

sn-labsassets

OK

You should see two namespaces listed starting with sn-labs:

* The first one with your username is a namespace just for you. You have full *read* and *write* access to this namespace.
* The second one is a shared namespace you only have *read* access to.

1. Ensure that you are targeting the us-south region where these namespaces reside as you saw in the output of the ibmcloud target

theia@theiadocker-gauravbhola:/home/project$ ibmcloud cr region-set us-south

The region is set to 'us-south', the registry is 'us.icr.io'.

theia@theiadocker-gauravbhola:/home/project$ ibmcloud cr login

Logging in to 'registry.ng.bluemix.net'...

Logged in to 'registry.ng.bluemix.net'.

Logging in to 'us.icr.io'...

Logged in to 'us.icr.io'.

OK

theia@theiadocker-gauravbhola:/home/project$ export MY\_NAMESPACE=$(ibmcloud cr namespaces|grep sn-labs-|xargs)

docker tag myimage:v1 us.icr.io/$MY\_NAMESPACE/hello-world:1

docker push us.icr.io/$MY\_NAMESPACE/hello-world:1

theia@theiadocker-gauravbhola:/home/project$ export MY\_NAMESPACE=$(ibmcloud cr namespaces|grep sn-labs-|xargs)

theia@theiadocker-gauravbhola:/home/project$ docker tag myimage:v1 us.icr.io/$MY\_NAMESPACE/hello-world:1

theia@theiadocker-gauravbhola:/home/project$ docker push us.icr.io/$MY\_NAMESPACE/hello-world:1

The push refers to repository [us.icr.io/sn-labs-gauravbhola/hello-world]

81a09b273dd7: Pushed

c8195dd13d1c: Pushed

32f8a94ab1f9: Pushed

0804854a4553: Pushed

6bd4a62f5178: Pushed

9dfa40a0da3b: Pushed

1: digest: sha256:e041d295dcf5e12a397c3400d6a4e43455e7119d2eff7fec8062be93d3f5c601 size: 1576

theia@theiadocker-gauravbhola:/home/project$ ibmcloud cr images

Listing images...

Repository Tag Digest Namespace Created Size Security status

us.icr.io/sn-labs-gauravbhola/hello-world 1 e041d295dcf5 sn-labs-gauravbhola 18 minutes ago 27 MB

Optionally, to only view images within a specific namespace.

**ibmcloud** cr images --restrict $MY\_NAMESPACE

theia@theiadocker-gauravbhola:/home/project$ ibmcloud cr images --restrict $MY\_NAMESPACE

Listing images...

Repository Tag Digest Namespace Created Size Security status

us.icr.io/sn-labs-gauravbhola/hello-world 1 e041d295dcf5 sn-labs-gauravbhola 19 minutes ago 27 MB No Issues

OK