**One liner to stop / remove all of**[**Docker**](http://www.docker.io/)**containers**:

docker stop $(docker ps -a -q)

docker rm $(docker ps -a -q)

Create IBM DB2 container

<https://hub.docker.com/r/ibmcom/db2express-c/>

docker run -itd –name=db2 -p 50000:50000 -e DB2INST1\_PASSWORD=db2inst1-pwd -e LICENSE=accept ibmcom/db2express-c:latest –network=mynetwork bash

docker run -itd --name rajdb2 -p 50000:50000 -e DB2INST1\_PASSWORD=db2inst1-pwd -e LICENSE=accept ibmcom/db2express-c:latest bash

#entering running container

PS C:\Users\rajbir\_sood> docker exec -it rajdb2 bash

[root@00de2388c4cc /]#o

Su db2inst1

To stop container

Dockert stop container id

To start

Docker start container id

Docker exec -it image bash

Run a command in a running container

edureka@test01:~/virtusa\_assigment$ docker exec -it e5388 bash

docker network create mynetwork

edureka@test01:~$ docker rm $(docker ps -a -q)

b69620779616

edureka@test01:~$ docker run -itd --name rajdb2 -p 50000:50000 -e DB2INST1\_PASSWORD=db2inst1-pwd -e LICENSE=accept --net mynetwork ibmcom/db2express-c:latest bash

5a0d34e0d888d07b48be9a429f4e68f457865aac7f09f5085867e54702a5215b

edureka@test01:~$ docker ps -a

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

5a0d34e0d888 ibmcom/db2express-c:latest "/entrypoint.sh bash" 4 seconds ago Up 4 seconds 22/tcp, 0.0.0.0:50000->50000/tcp rajdb2

edureka@test01:~$ docker ps

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

5a0d34e0d888 ibmcom/db2express-c:latest "/entrypoint.sh bash" 9 seconds ago Up 8 seconds 22/tcp, 0.0.0.0:50000->50000/tcp rajdb2

edureka@test01:~$ docker run -itd --name mytomcat -p 8081:8080 --net mynetwork tomcat:8

7fce6026fa2f9190c593bae8fdf36f0c4371d8cc060c881797dad9fe3f304572

edureka@test01:~$ docker ps

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

7fce6026fa2f tomcat:8 "catalina.sh run" 4 seconds ago Up 3 seconds 0.0.0.0:8081->8080/tcp mytomcat

5a0d34e0d888 ibmcom/db2express-c:latest "/entrypoint.sh bash" 51 seconds ago Up 50 seconds 22/tcp, 0.0.0.0:50000->50000/tcp rajdb2

edureka@test01:~$ docker container port rajdb2

50000/tcp -> 0.0.0.0:50000

edureka@test01:~$ docker container port mytomcat

8080/tcp -> 0.0.0.0:8081

**docker exec -it rajdb2 ping mytomcat**

PING mytomcat (172.19.0.3) 56(84) bytes of data.

64 bytes from mytomcat.mynetwork (172.19.0.3): icmp\_seq=1 ttl=64 time=0.053 ms

64 bytes from mytomcat.mynetwork (172.19.0.3): icmp\_seq=2 ttl=64 time=0.116 ms

64 bytes from mytomcat.mynetwork (172.19.0.3): icmp\_seq=3 ttl=64 time=0.107 ms

64 bytes from mytomcat.mynetwork (172.19.0.3): icmp\_seq=4 ttl=64 time=0.105 ms

^C

--- mytomcat ping statistics ---

4 packets transmitted, 4 received, 0% packet loss, time 3001ms

rtt min/avg/max/mdev = 0.053/0.095/0.116/0.025 ms

edureka@test01:~$ **docker exec -it mytomcat ping rajdb2**

PING rajdb2 (172.19.0.2): 56 data bytes

64 bytes from 172.19.0.2: icmp\_seq=0 ttl=64 time=0.041 ms

64 bytes from 172.19.0.2: icmp\_seq=1 ttl=64 time=0.142 ms

64 bytes from 172.19.0.2: icmp\_seq=2 ttl=64 time=0.140 ms

Also

**docker exec -it mytomcat bash //after entering mytomcat server**

root@7fce6026fa2f:/usr/local/tomcat# ping rajdb2

PING rajdb2 (172.19.0.2): 56 data bytes

64 bytes from 172.19.0.2: icmp\_seq=0 ttl=64 time=0.047 ms

64 bytes from 172.19.0.2: icmp\_seq=1 ttl=64 time=0.161 ms

^C--- rajdb2 ping statistics ---

2 packets transmitted, 2 packets received, 0% packet loss

round-trip min/avg/max/stddev = 0.047/0.104/0.161/0.057 ms

**docker-compose up -d**

Creating network "virtusaassigment\_mynetwork1" with the default driver

Building mydb2

Step 1/2 : FROM ibmcom/db2express-c:latest

---> 7aa154d9b73c

Step 2/2 : RUN su - db2inst1 -c "db2start && db2 create db Test"

---> Running in b491e3e70ccb

SQL1063N DB2START processing was successful.

DB20000I The CREATE DATABASE command completed successfully.

Removing intermediate container b491e3e70ccb

---> 23b7938d8d8a

Successfully built 23b7938d8d8a

Successfully tagged virtusaassigment\_mydb2:latest

WARNING: Image for service mydb2 was built because it did not already exist. To rebuild this image you must use `docker-compose build` or `docker-compose up --build`.

Creating virtusaassigment\_mytomcat\_1 ... done

Creating virtusaassigment\_mydb2\_1 ... done

edureka@test01:~/virtusa\_assigment/db2$

**docker ps**

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

2bb917d611c0 virtusaassigment\_mydb2 "/entrypoint.sh db2s…" 13 seconds ago Up 12 seconds 22/tcp, 0.0.0.0:50000->50000/tcp virtusaassigment\_mydb2\_1

26f99a23f808 tomcat:8 "catalina.sh run" 13 seconds ago Up 12 seconds 0.0.0.0:8081->8080/tcp virtusaassigment\_mytomcat\_1

edureka@test01:~/virtusa\_assigment/db2$

docker exec -it virtusaassigment\_mytomcat\_1 bash

root@26f99a23f808:/usr/local/tomcat# ping virtusaassigment\_mydb2\_1

PING virtusaassigment\_mydb2\_1 (172.21.0.2): 56 data bytes

64 bytes from 172.21.0.2: icmp\_seq=0 ttl=64 time=0.544 ms

64 bytes from 172.21.0.2: icmp\_seq=1 ttl=64 time=0.264 ms

^C--- virtusaassigment\_mydb2\_1 ping statistics ---

2 packets transmitted, 2 packets received, 0% packet loss

round-trip min/avg/max/stddev = 0.264/0.404/0.544/0.140 ms

Install java webservice REST api and create java web application using that websrvice(index.html) page

**Jenkins Container:**

Using Jenkins:

Gradle to build java war file and install it on tomcat

docker run --name myjenkins -p 8082:8080 -p 50002:50000 -v /var/jenkins\_home Jenkins

docker run -it --name myjenkins -p 8082:8080 -p 50002:50000 --net mynetwork -v /home/edureka/virtusa\_assigment/var:/var/jenkins\_home jenkins bash

**docker run -d -u root --name jenkins \ -p 8082:8080 -p 50002:50000 \ -v /root/jenkins:/var/jenkins\_home \ Jenkins**

**docker run -d -u root --name jenkins -p 8082:8080 -p 50002:50000 --net mynetwork -v /root/jenkins:/var/jenkins\_home jenkins**

cfa63540d035b271bc8e34f444cd68d058206a0811d9dd32859b1fba67bf50fe

root@test01:/home/edureka/virtusa\_assigment# **docker ps**

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

cfa63540d035 jenkins "/bin/tini -- /usr/l…" 10 seconds ago Up 9 seconds 0.0.0.0:8082->8080/tcp, 0.0.0.0:50002->50000/tcp jenkins

1ff86a28ba7b virtusaassigment\_mydb2 "/entrypoint.sh db2s…" About an hour ago Up About an hour 22/tcp, 0.0.0.0:50000->50000/tcp virtusaassigment\_mydb2\_1

3b7fab6512b5 tomcat:8 "catalina.sh run" About an hour ago Up About an hour 0.0.0.0:8081->8080/tcp virtusaassigment\_mytomcat\_1