Docker Compose:

1. Docker compose is created using yaml file extension or yml extension.

2. Indentation is very important while writing yaml files

3. Version in docker-compose depends on your docker —version.

Here my docker-version is

root@docker:~/docker\_files# docker --version

Docker version 19.03.8, build afacb8b7f0

From https://docs.docker.com/compose/compose-file/compose-versioning/ : you can see the versions which are compatible.

4. You can create docker-compose file with any name you wish to (my image.yaml)

Sample docker-compose file:

root@docker:~/docker\_files# cat nginx.yaml

version: '3'

services:

mynginx-apache\_vol\_test:

image: nginx

ports:

- 9060:80/tcp

volumes:

- /root/docker\_files:/usr/share/nginx/html/

Explanation : In the above file, version is 3. Container name is mentioned asmynginx-apache\_vol\_test under services. Under your container we are telling the image and ports it should use in order to create a container for us.

Execution: docker-compose -f nginx.yaml up -d

========SAMPLE docker-compose file to create 2 images using multiple custom network 1 for each image.

root@docker:~/docker\_files# cat httpd\_test\_mulnetworks.yaml

version: '3'

services:

myhttpd\_cust:

image: httpd

networks:

- mynetwork

ports:

- 7050:80/tcp

volumes:

- /root/docker\_files:/usr/local/apache2/htdocs/

mynginx\_cust:

image: nginx

networks:

- newcustnetwork

ports:

- 8050:80/tcp

volumes:

- /root/docker\_files:/usr/share/nginx/html/

networks:

mynetwork:

newcustnetwork:

external: true

root@docker:~/docker\_files#

In the above, myhttpd\_cust uses mynetwork and mynginx\_cust uses newcustnetwork

Check status :

root@docker:~/docker\_files# docker-compose -f httpd\_test\_mulnetworks.yaml ps

Name Command State Ports

-------------------------------------------------------------------------------------------

docker\_files\_myhttpd\_cust\_1 httpd-foreground Up 0.0.0.0:7050->80/tcp

docker\_files\_mynginx\_cust\_1 /docker-entrypoint.sh ngin ... Up 0.0.0.0:8050->80/tcp

root@docker:~/docker\_files#

Create a Dockerfile and pass that file in docker-compose:

root@Docker:/DOCKER\_FILE\_COMPOSE\_PRACTICE# cat one.yaml

version: '3'

services:

web\_httpd\_cont:

build:

context: .

dockerfile: /DOCKER\_FILE\_COMPOSE\_PRACTICE/Dockerfile

ports:

- 8080:80

Ubuntu\_OS:

image: ubuntu

root@Docker:/DOCKER\_FILE\_COMPOSE\_PRACTICE# cat Dockerfile

FROM httpd

Maintainer "Venky"

LABEL "ENV"="WEB"

ARG DEBIAN\_FRONTEND=noninteractive

#Install Packages

RUN apt-get update -y && \

apt install vim -y && \

apt install iputils-ping -y

COPY index.html /usr/local/apache2/htdocs/

EXPOSE 80

CMD ["httpd", "-D", "FOREGROUND"]

root@Docker:/DOCKER\_FILE\_COMPOSE\_PRACTICE#

mysqldb:

root@Docker:/DOCKER\_FILE\_COMPOSE\_PRACTICE/UBUNTU\_IMG# cat 1.yaml

version: '3'

services:

db:

image: mysql

ports:

- 1521:3306

environment:

MYSQL\_DATABASE: venky\_db

MYSQL\_USER: venky

MYSQL\_PASSWORD: welcome123

MYSQL\_ROOT\_PASSWORD: 123

root@Docker:/DOCKER\_FILE\_COMPOSE\_PRACTICE/UBUNTU\_IMG#

root@Docker:/DOCKER\_FILE\_COMPOSE\_PRACTICE/UBUNTU\_IMG# docker exec -it 761980d7aa5a mysql -u root -p

Enter password:

Welcome to the MySQL monitor. Commands end with ; or \g.

Your MySQL connection id is 8

Server version: 8.0.23 MySQL Community Server - GPL

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affiliates. Other names may be trademarks of their respective

owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> show databases;

+--------------------+

| Database |

+--------------------+

| information\_schema |

| mysql |

| performance\_schema |

| sys |

| venky\_db |

+--------------------+

5 rows in set (0.00 sec)

mysql> use venky\_db

Database changed

mysql>

Otherway :

docker exec -it 761980d7aa5a3 bash

root@761980d7aa5a:/# mysql -u root -p

Enter password:

Welcome to the MySQL monitor. Commands end with ; or \g.

Your MySQL connection id is 10

Server version: 8.0.23 MySQL Community Server - GPL

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> show databases;

+--------------------+

| Database |

+--------------------+

| information\_schema |

| mysql |

| performance\_schema |

| sys |

| venky\_db |

+--------------------+

5 rows in set (0.00 sec)

mysql>