**DOCKER IMAGES & DOCKER CONTAINER**

**To pull the images from the docker registry:**

docker pull imagename:version

**To run the image and get the container from the image:**

docker run –name mycon imagename

**To run the image and get the container running in the detached mode from the image:**

docker run -it -d --name mycon -p 80:80 imagename

**To create the container without running:**

docker create –name mycon imagename

**To watch the logs of the container:**

docker logs <containername>

**To run the container along with the volume:**

Docker run -it -d –name mycon -p 80:80 --mount source=volumename,target=/apps imagename

Docker run -it -d –name mycon -p 80:80 --mount source=volumename,target=/apps,readonly imagename

Docker run -it -d –name mycon -p 80:80 -v volumename:/apps imagename

Docker run -it -d –name mycon -p 80:80 -v volumename:/apps:ro imagename

Docker run -it -d –name mycon -p 80:80 –mount type=bind,source=$(pwd),target=/apps imagename

Docker run -it -d –name mycon -p 80:80 –mount type=bind,source=$(pwd),target=/apps,readonly imagename

Docker run -it -d –name mycon -p 80:80 -v $(pwd):/apps imagename

Docker run -it -d –name mycon -p 80:80 -v $(pwd):/apps:ro imagename

Docker run -it -d –name mycon -p 80:80 –mount type=tmpfs,target=/apps imagename

Docker run -it -d –name mycon -p 80:80 –mount type=tmpfs,target=/apps,readonly imagename

Docker run -it -d –name mycon -p 80;80 –tmpfs=/apps imagename

**To list the running containers:**

docker ps

**To see the details of the containers:**

docker inspect <containername>

**To stop the running container/ To start the stopped container/ To restart container:**

docker stop containername/ docker start containername/ docker restart containername

**To Kill the running container:**

docker kill containername

**To list the stopped and running containers:**

docker ps -a

**To remove the container:**

docker rm containername

**To get inside the running container:**

docker exec -ti containername/id bash

**To save the setting that made inside the container and create the image out of it:**

Docker commit containername imagename

**To build the custom image from the dockerfile:**

Docker build -t imagename .(by using . will search the dockerfile in current directory)

**DOCKER\_VOLUMES**

**To create the volume:**

Docker volume create volumename

**To list the docker volume:**

Docker volume ls

**To get the information of volume in depth:**

Docker volume inspect volumename

**To remove the volume:**

Docker volume rm volumename

**To remove all the unused volumes:**

Docker volume prune

**DOCKER\_NETWORK:**

**To Create the network:**

docker network create –driver drivername(bridge,overlay,none network) networkname

**To list the docker networks:**

Docker network ls

**To get the information of network in depth:**

Docker network inspect networkname

**To connect network to a running container:**

Docker network connect <networkid> <containername>

**To dis-connect network to a running container:**

Docker network disconnect <networkid> <containername>

**To delete the network:**

docker network rm <networkname>

**To delete the unused networks:**

Docker prune network

**To attach network to the container:**

Docker run -it -d –name containername -p 80:80 –network networkname imagename

**Note:** “We cannot create the host network”

(Docker run -it -d –name containername –network hostnetwork imagename)- HOST NETWORK

**DOCKER\_SWARM:**

**To make node a manger node:**

Docker swarm init

**To make the node a worker node:**

Docker swarm join-token worker

**To make the node a manager node:**

Docker swarm join-token manager

**To list the nodes of the swarm:**

Docker node ls

**(Managing nodes):**

**To make the worker node as reachable node:**

Docker node promote (address of the node)IP-Address

**To make the worker node as unreachable node:**

Docker node domote (address of the node)IP-Address

**To make the node drain:**

Docker node update –availability drain node-id

**To make the node active:**

Docker node update –availability active node-id

**DOCKER\_SERVICE:**

**To create the docker service:** (A service is a definition of the tasks to execute on the swarm nodes

Which image to use , How many containers to run, which commands to execute inside containers and which port, volume and networks etc to use)

Docker service create –name servicename –replicas (noofreplicas) -p 8080:80 –network network(overlay)name imagename

Docker service create –name servicename –mode global -p 8080:80 –network network(overlay)name imagename (creates one replica per node in all nodes in the swarm with no prespecified number of tasks)

**To create a config file:**

Docker config create <configname> <file>

**To add the created config file to the containers within the service:**

Docker service update –config-add src=configname,target=/…/filename servicename

**To list the docker service:**

Docker service ls

**To check in which nodes containers are running:**

Docker service ps servicename

**To scale the containers up and down in service:**

Docker service scale servicename=noofreplicas

**To update the service:**

Docker service update –replicas noofreplicas servicename

**To update the version of a service:**

Docker service update (–options like images,network etc) itemsname servicename

**To rollback to the previous version of service:**

Docker service rollback servicename

**To get information about the service:**

Docker service inspect servicename

**To delete the service:**

Docker service rm servicename

**DOCKER\_COMPOSE:**

**To check the error in the docker-compose.yml file:**

Docker compose -f docker-compose.yml config

**To create and start the docker compose.yml file container with different file name:**

Docker-compose -f other.yml up -d

**To create and start the docker compose.yml file containers in detach mode:**

Docker-compose up -d

**To close the docker compose.yml file:**

Docker-compose down

**To create and start the specific services & containers:**

Docker-compose up -d servicename

**To list the images in docker-compose:**

Docker-compose images

**To stop and remove containers specific service & container:**

Docker-compose down servicename

**To stop the services & container:**

Docker-compose stop servicename

**To start the services & container:**

Docker-compose start servicename

**To remove the stopped container in service:**

Docker-compose rm servicename

**To list the docker compose services:**

Docker-compose ps

**To list the docker compose specific services:**

Docker-compose ps servicename

**To view the output of the specific service & container:**

Docker-compose logs servicename

**To execute a command in a running container:**

Docker-compose exec servicename (commands)/bin/bash, ls, hostname

**To scale containers for a service in docker compose:**

Docker-compose up -d –scale servicename=numberofreplicas

**DOCKER\_STACK:**

**To create and start the specific services & containers from docker-compose.yml:**

Docker stack deploy -c docker-compose.yml stackname

**To list the compose services in swarm mode:**

Docker stack ls

**To list the compose services in details in swarm mode:**

Docker stack ps stackname

**To view the services in the stack:**

Docker stack services stackname

**To delete the stack:**

Docker stack rm