Docker Commands

**Basic Commands:**

* docker version or docker -v
* docker info
* docker –help
* docker login

**Images:**

* docker images
* docker pull
* docker rmi

**Containers:**

* docker ps
* docker run
* docker start
* docker stop

**System:**

* docker stats
* docker system df
* docker system prune

**Docker File:**

Docker file (Simple text file) ----Docker Build----> Docker Image

**Create Docker File:**

Step 1: Create a file name Dockerfile

Step 2: Add instructions in Dockerfile

Step 3: Build Dockerfile to create image

Step 4: Run image to create container



Docker Cheat Sheet:

<https://github.com/wsargent/docker-cheat-sheet#dockerfile>

**Commands:**

docker build

docker build -t <ImageName>:Tag <LocationofFile>

docker build -t <ImageName>:Tag . – If it is in same folder.

**Docker Compose:**

Step 1: install docker compose (Already installed in Windows and MacOs)

Command to check docker compose installation: *docker-compose -v*

Step 2: Create docker compose file at any location on your system(docker-compose.yml)

Step 3: Check the validity of file by command (**docker-compose config**)

Step 4: Run docker compose yml file – (**docker-compose up -d**)

Step 5: Bring down by **docker-compose down**

**Scaling Up Services:**

Command: **docker-compose up -d –scale database=4**

**Docker Volumes:**

Volumes are preferred mechanism for persisting data generated by and used by Docker containers

**Commands:**

* docker volume –help
* docker volume create <vol name>
* docker volume ls
* docker volume inspect <vol name>
* docker volume prune

**Command to create volume for Jenkins:**

Cmd: docker run --name MyJenkins1 -v myvol1:/var/jenkins\_home -p 8080:8080 -p 50000:50000 jenkins/jenkins

**Creating another Instance using the same volume:**

Cmd: docker run --name MyJenkins2 -v myvol1:/var/jenkins\_home -p 9090:8080 -p 60000:50000 jenkins/Jenkins

**Bind Mount:**

A file or directory on the host machine is mounted into a container (Physical location)

**Creating Volume in local workspace:**

Cmd: docker run --name MyJenkins3 -v myvol1:/Users/Kural/Desktop -p 9191:8080 -p 40000:50000 jenkins/jenkins

**Docker Swarm:**

* Docker swarm is a group of machines that are running Docker and joined into a cluster.
* Tool for container orchestration. Its like a Manager.
* Eg: Kubernetes, Apache Mesos.

Commands:

Create docker manager:

docker-machine create –driver hyperv <ManagerName>