

➤ **Docker directives**

- **FROM** Base image
- **MAINTAINER** Mail of owner
- **RUN** Commands to be executed as a part of building image as Layers
- **USER** Create Image as non-privileged user
- **ENV** Creates environment variables
- **CMD** Executes the when container build does not creates the Layers & can be overridden
- **ENTRYPOINT** Default Application cannot be overridden
- **EXPOSE** Ports should be gets out of the container

➤ **Docker commands**

- To enter into the container - **docker run -it imagename /bin/bash**
- To run docker background - **docker start container name**
- To login as root user if non privileged user specified in the docker file - **docker exec -u 0 -it container name /bin/bash**
- To execute the commands in container - **docker exec container /bin/bash command**
- To expose the ports manually - **docker run -d --name name -p port:container port imagename**
- To automatically expose to container ports and mapped to the host - **docker run -d --name name -P imagename** (port should be exposed in dockerfile)
- To create the container mount volumes from image - **docker run -it --name name -v /dir image name** (This mount volumes are sharable same file systems to multiple containers)
- Location of the mount volumes in the local machine - **/var/lib/docker/volumes/specfiedhexadir/_data/**
- To deploy to the data to the container mount point - **docker run -it --name name -v localdir:/conatinerdir imagename**
- To create the network - **docker network create --driver bridge scott**
- To create network with subnet & gateway - **docker network create --driver bridge --subnet=192.168.0.0/16 --gateway=192.168.0.10 sagar**
- Network in the specific ip range - **docker network create --driver bridge --subnet=192.168.0.0/16 --gateway=192.168.0.10 --ip-range=192.168.5.0/24 scott**
- Assigning to custom network to the containers - **docker run -it --name scottnet --net scott centos:latest**