- **Docker Image commands**
  - docker search <image_name:tag>
    // search for images in terminal
  - docker pull <image_name:tag>
    // pull images to local machine from docker hub
  - docker image ls (or) docker images
    // list all downloaded docker images in local system
  - docker image inspect <image_name:tag>
    // display detailed information on one or more images
  - docker image history <image_name:tag>
    // show the history of an image
  - docker image prune
    // remove all unused images from local machine
  - docker push <image_name:tag>
    // push images to docker hub/registry
  - docker image rm <image_name:tag> (or) docker rmi <image_name:tag>
    // do delete one or multiple docker images

- **Docker container commands**
  - docker ps
    // list all running container
  - docker ps -a
    // list all containers info (running + stopped)
  - docker ps -l
    // last effected container details
  - docker stop <container_name/id> (or) docker kill <container_name/id>
    // stop running container
  - docker rename <container_name> <new_name>
    // change name of running container
  - docker rm <container_name/id>
    // delete container from local machine
  - docker inspect <container_name/id>
    // to see detailed info about a container
  - docker cp /source/path <container_name/id>:/destination/path
    // copy files from local host to container
  - docker container prune
    //Remove all stopped containers

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- **Running Containers**

    Syntax: docker run [OPTIONS] <image_name:tag>
  - -it
    // launch container with interactive mode
    // docker run -itd centos
  - -d
    // launch containers with detach mode (run in background)
    // docker run -d tomcat
  - -itd
    // launch containers with detach mode
    // docker run -itd centos
  - --name
    // provide name to container when you are launching it

// docker run -itd --name <container_name>
<image_name:tag>

- -v
  // used to attach volumes
- --volumes-from
  // for creating and attaching reusables volumes
- --network
  // use for attaching a network to a container
- -p
  // use for port mapping (if you want to go with a specific port for port mapping)
  //docker run -d -p <defalut_port_of _app/tool>:<your_port>
  <image_name/id:tag>
  // docker run -d -p 8080:80 tomcat
- -P
  // Used for port mapping (docker daemon will pick a free port for port mapping, generally docker daemon will pick from 32768 range)
  // docker run -d -P tomcat
- -e
  // Used for specifying the environment variables of a container
- --cpu
  // used to specify the processors that the container should use

- **<u>To enter into a container environment which is running in background</u>**
  - docker exec -it <container_name/id> bash
    // docker exec -it container1 bash

- **<u>Docker Networking</u>**
  - docker network ls
    // list all available docker networks
  - docker network inspect <network_name/id>
    // shows detailed info about a docker network
  - docker network create <network_name>
    // to create docker network with default values
    - docker network create --driver <driver_name>
      <network_name>
      // to create docker network with specific driver
  - docker network create --driver <driver_name> --subnet
    <subnet_range> <network_name>
  - // to create docker network with specific driver and subnet range
  - docker network connect <network_name/network_id>
    <container_name/id>
    // to connect container to specific docker network
  - docker network connect <network_name/network_id> --ip
    <ipadd> <container_name/id>
    // to connect container to specific docker network with specific ip
  - docker network rm <network_name/network_id>
    // to delete one or multiple docker networks
  - docker network prune
    // to delete all unused all docker networks
  - docker network disconnect <network_name/network_id>
    <container_name/id>
    // disconnect container from docker network

- **Docker Volumes**
  - docker volume ls
    // to list available docker volumes in local machine
  - docker volume inspect <volume_name/id>
    // shows detailed info about a docker volume
  - docker volume create <volume_name>
    // to create docker volume
  - docker volume rm <volume_name/id>
    // to remove one or multiple docker volumes
  - docker volume prune
    // to delete all unused docker volumes
  - -v
    // create a docker volume and attach a docker volume to container
    // docker run -itd -v /data centos
  - --mount
    // to attach a docker local volume(which is already created) to container
    // docker run -itd --mount “source=<docker_local_volume_name/path>,destination <destination_dir/path/in/container>” <image_name/id:tag>