Basic Docker Commands

Docker management Commands and Sub Commands

- To get complete list of docker commands

  docker

- Docker command format

  Docker <command> <sub-command> (options)

  e.g. docker container run nginx

        docker volume inspect 123pdew

- Docker help feature

 Docker <command><sub-command> --help

  e.g. docker container --help

  e.g. docker container run --help

Docker: Provisioning - Docker Hub

Url: https://hub.docker.com/

Docker Hub is a cloud-based registry service which allows you to link to code repositories, build your images and test them, stores manually pushed images, and links to Docker Cloud so that you can deploy images to your hosts.

It provides a centralized resource for container image discovery, distribution and change management, user and team collaboration, and workflow automation throughout the development pipeline.
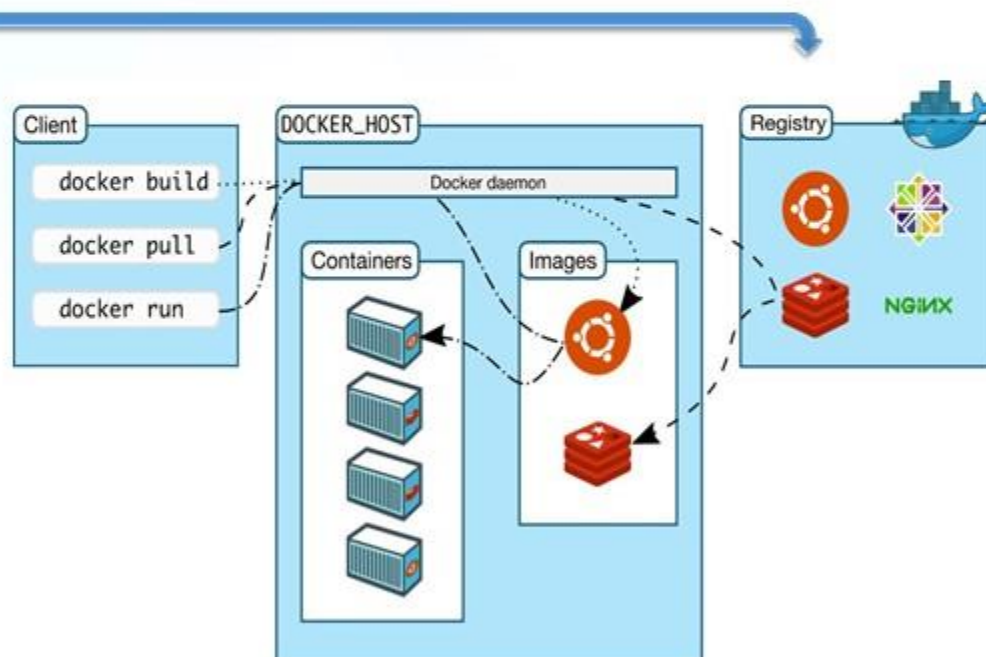
Docker: Provisioning - Docker Hub Features

- **Image Repositories:** Find and pull images from community and official libraries. Manage, push to, and pull from private image libraries to which you have access.

- **Automated Builds:** Automatically create new images when you make changes to a source code repository.

- **Webhooks:** A feature of Automated Builds, Webhooks let you trigger actions after a successful push to a repository.

- **Organizations:** Create work groups to manage access to image repositories.

- **GitHub and Bitbucket Integration:** Add the Hub and your Docker Images to your current workflows.

Docker Commands

- Search an image in docker repository
  - **docker search nginx**

- Start a container
  - **docker run nginx**

- What did just happen now?
  - Downloaded image 'nginx' from Docker Hub
  - Started a new container from that image

Docker Commands

- List Running Containers
  - **docker ps**

- List All Containers
  - **docker ps -a**

Docker Commands

- Stop a running container
  - **docker stop <Container_ID>**

- Remove a container
  - **docker rm <Container_ID>**

Docker Commands - Images

- List Images
  - **docker images**

- Remove an Images
  - **docker rmi <Image_Name>**

Docker Commands - Images

- Pull an Images
  - **docker pull <Image_Name>**

- Pull Ubuntu Image
  - **docker pull ubuntu**

Docker Commands

- Run a docker container from Ubuntu
  - **docker run ubuntu**

- See running containers
  - **docker ps**

- See all containers
  - **docker ps -a**

Docker Commands

- Append sleep command
  - **docker run ubuntu sleep 5**

- Auto login to container while running
  - **docker run -it ubuntu bash**

- Run some commands within container. Let's check the operating system.
  - **cat /etc/*release***

Docker Commands - Images

- Run a container
  - **docker run nginx**

- Run a container in background
  - **docker run -d nginx**

- See running container
  - **docker ps**

- Attach a container
  - **docker attach <Container_ID>**

Exercise

- Run a container from "timer" image
- It prints the current time. Exit from the container
- Run the same container in detach mode
- Attach the container to see the output

Docker Commands - Images

- Execute a command in running container
  - **docker exec <Container_ID> <Command>**
  - **docker exec 123jjhf cat /etc/hosts**

Docker Commands - Images

- Run a container
  - **docker run nginx**

- Open another terminal

- Try deleting Nginx image
  - **docker rmi nginx**
  - **You will notice it fails and tells that image is used by container**

- Delete the container

- Delete the image

- **You will notice that image is deleted now**

Exercise

- Pull the Centos Image

- Run Bash while running the Centos image

- Exit from container

- Execute Sleep command for 5 sec

- Delete Centos image

- Remove all the stopped containers