



docker
INSTALLATION

❖ DOCKER ENGINE OVERVIEW:

- Docker Engine is an open-source containerization technology for building and containerizing your applications.
- Docker Engine acts as a client-server application with:
 - A server with a long-running daemon process **dockerd**.
 - APIs which specify interfaces that programs can use to talk to and instruct the Docker daemon.
 - A command line interface (CLI) client docker.

SUPPORTED PLATFORMS:

- Docker Desktop for Mac (macOS)
- Docker Desktop for Windows
- Linux distributions:
 - Red Hat, Centos, Fedora, Debian, Ubuntu...etc.
- Cloud Platforms:
 - AWS, AZURE, GCP, Digital Ocean.... etc.

➤ INSTALLING DOCKER ENGINE ON LINUX:

INSTALLING ON RED HAT / CENTOS:

- To install Docker Engine, you need a maintained version:
 - **CentOS 7 or 8**
 - **RHEL 7 or 8**
 - **Fedora 33 or 34**

INSTALLING ON UBUNTU:

- To install Docker Engine, you need the **64-bit** version of one of these Ubuntu versions:
 - Ubuntu 18 / 20 / 21.04 / 24

To check docker version: #docker version

➤ **INSTALL DOCKER DESKTOP ON WINDOWS:**

- Windows 10 64-bit: Home or Pro 2004 (build 19041) or higher, or Enterprise or Education 1909 or higher.
- Enable the WSL 2 feature on Windows. (Windows Subsystem for Linux, version 2)
- The following hardware prerequisites are required to successfully run WSL 2 on Windows 10:
 - 64-bit processor with Second Level Address Translation (SLAT)
 - 4GB system RAM
 - BIOS-level hardware virtualization support must be enabled in the BIOS settings.
 - Download and install the Linux kernel update package:
<https://docs.microsoft.com/en-us/windows/wsl/install-win10#step-4---download-the-linux-kernel-update-package>

NOTE: Please follow the bellow link for docker installation.

<https://docs.docker.com/engine/install/>

➤ **DOCKER COMMANDS:**

COMMAND	DESCRIPTION
docker attach	: Attach local standard input, output, & error streams to a running container
docker build	: Build an image from a Docker file
docker checkpoint	: Manage checkpoints
docker commit	: Create a new image from a container's changes
docker config	: Manage Docker configs
docker container	: Manage containers
docker cp	: Copy files/folders between a container and the local filesystem

docker create	: Create a new container
docker deploy	: Deploy a new stack or update an existing stack
docker diff	: Inspect changes to files or directories on a container's filesystem
docker events	: Get real time events from the server
docker exec	: Run a command in a running container
docker export	: Export a container's filesystem as a tar archive
docker history	: Show the history of an image
docker image	: Manage images
docker images	: List images
docker import	: Import the contents from a tar ball to create a filesystem image
docker info	: Display system-wide information
docker inspect	: Return low-level information on Docker objects
docker kill	: Kill one or more running containers
docker load	: Load an image from a tar archive or STDIN
docker login	: Log in to a Docker registry
docker logout	: Log out from a Docker registry
docker logs	: Fetch the logs of a container
docker network	: Manage networks
docker node	: Manage Swarm nodes
docker pause	: Pause all processes within one or more containers
docker plugin	: Manage plugins
docker port	: List port mappings for the container
docker ps	: List containers
docker pull	: Pull an image or a repository from a registry
docker push	: Push an image or a repository to a registry

docker rename	: Rename a container
docker restart	: Restart one or more containers
docker rm	: Remove one or more containers
docker rmi	: Remove one or more images
docker run	: Run a command in a new container
docker save	: Save one or more images to a tar archive
docker search	: Search the Docker Hub for images
docker service	: Manage services
docker start	: Start one or more stopped containers
docker stats	: Display a live stream of container(s) resource usage statistics
docker stop	: Stop one or more running containers
docker system	: Manage Docker
docker tag	: Create a tag TARGET_IMAGE that refers to SOURCE_IMAGE
docker unpause	: Unpause all processes within one or more container
docker top	: Display the running processes of a container
docker update	: Update configuration of one or more containers
docker version	: Show the Docker version information
docker volume	: Manage volumes
docker wait	: Block until one or more containers stop, then print their exit codes