Experiment No. 9

Aim: To study and Implement Containerization using Docker

Objective: To know the basic differences between Virtual machine and Container. It involves demonstration of creating, finding, building, installing, and running Linux/Windows application containers inside a local machine or cloud platform.

Theory:

- open platform for developing, shipping and running applications
- enables you to separate your applications from your infrastructure so you can deliver software quickly
- you can manage your infrastructure in the same ways you manage your applications
- Docker provides the ability to package and run an application in a loosely isolated environment called a container.
- Containers are lightweight and contain everything needed to run the application, so you do not need to rely on what is currently installed on the host.
- Develop your application and its supporting components using containers.
- The container becomes the unit for distributing and testing your application.
- When you're ready, deploy your application into your production environment, as a container or an orchestrated service. This works the same whether your production environment is a local data center, a cloud provider, or a hybrid of the two.

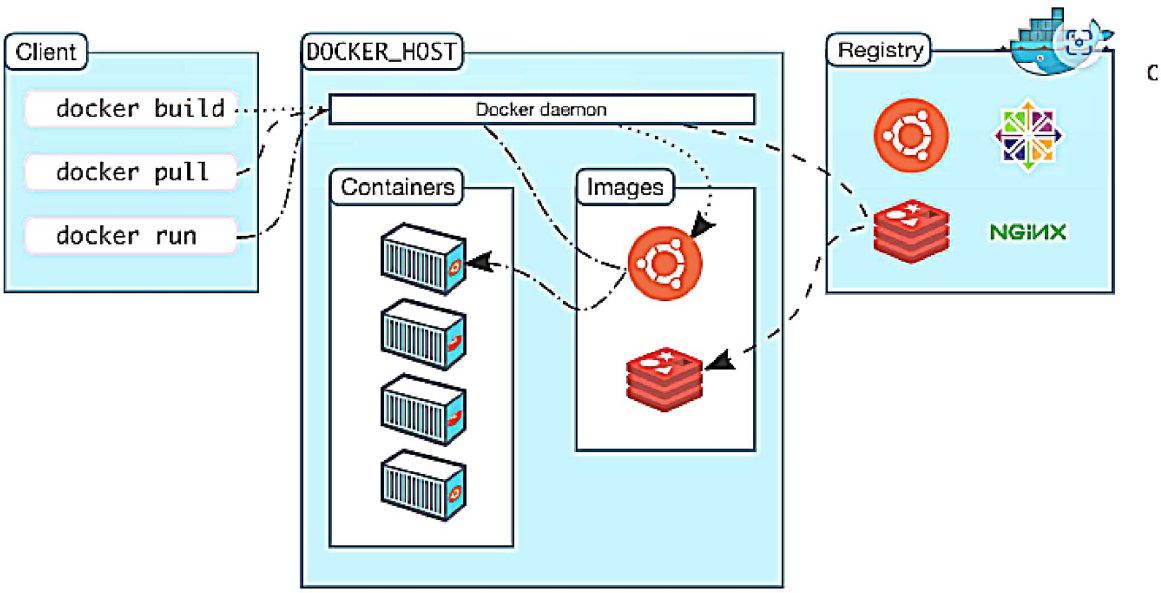

Figure 1: Docker Architecture