# DOCKER

- Docker is an opensource platform designed to crate, deploy and run applications.
- Docker uses container on the host OS to run applications. It allows applications to use same Linux Kernel as a system on the host computer rather than creating a whole virtual OS.
- We can install docker on any OS but docker engine runs natively on Linux distributions.
- Docker written in “GO” programming language.
- Docker is a tool that performs OS level virtualization also known as Containerization.
- Before docker many users face the problem that a particular code is running in the developer’s system but no in the user’s system.
- Docker was first release in march 2013. It is developed by Solomon Hykes and Sebastian Pahl.
- Docker is a set of Platform-as-a-service that users OS level virtualization where as VMWARE uses hardware level of virtualization.

**Advantages of Docker :**

- No pre allocation of RAM.
- CI efficiency: - docker enables you to build a container image and use that same image across every step of the deployment process.
- Less cost.
- It is light in weight.
- It can run on physical h/w /virtual h/w or on cloud.
- You can reuse this image.
- It took very less time to create container.

**Disadvantages of Docker :**

- Docker is not a good solutions for application that requires rich GUI.
- Difficult to manage large number of containers.
- Docker doesn’t provide cross platform compatibility means if an application is designed to run a in a docker container in windows thar it can’t run in Linux or vice-versa.
- Docker is suitable when the development O.S and testing O.S are same. If the O.S are different then we should use VM.
- No solution for data recovery and backup.