What is container?

The container is like a virtual machine in which we can deploy any type of applications, soft wares and libraries. It’s a light weight virtual machine which uses OS in the form of image, which is having less in size compare to traditional VMware and oracle virtual box OS images. Container word has been taken from shipping containers. It has everything to run an application.

What is virtualization?

Logically dividing big machine into multiple virtual machines so that each virtual machine acts as new server and we can deploy any kind of applications in it. For this first we install any virtualization software on top of base OS. This virtualization software will divide base machine resources in to logical components. In a simple terms, logically dividing one machine into multiple machines we call virtualization.

What is Docker?

Docker is a tool by using which, we create containers in less time. Docker uses light weight OS in the form of docker images that we will get from docker hub. Docker is open source now. It became so popular because of its unique virtualization concept called “Containerization” which is not there in other tools. We can use docker in both windows and Linux machines.

What do you mean by docker image?

Docker image is light weight OS provided by docker company. We can get any type of docker image form docker hub. We use these docker images to create docker containers. This docker images may contain only OS or OS + other soft wares as well. Each software in docker image, will be stored in the form of layer. Advantage of using docker images is, we can replicate the same environment any no of times.

What are the ways through which we can create docker images?

1. We can pull docker image directly from docker hub
2. We can create our own docker images form our own docker containers.
3. We can create docker image form docker file.

What is docker file and why do we use it?

It is a just normal text file with instructions in it to build docker image. It is the automated way of creating docker images. Once you build docker image, automatically docker file will be created. In this file, we mention required OS image and all required soft wares in the form of instructions. Once we build docker file, back end, docker container will be created and then docker image will be crated from that container and that container will be destroyed automatically.

Difference between docker and VM Ware?

VM Ware uses complete OS which contains GBs in size. But docker image size is MBs only. So it takes less size. That’s why it takes less base machine resources. This docker image is compressed version of OS. The second advantage of docker is, there is no pre-allocation of RAM. During run time, it takes RAM as pre requirement from base machine and one’s job is done, it release RAM. But in VM Ware, pre-allocation of RAM is there and it blocked whether it uses or not. So need more RAM for base machine if you want to use VM Ware unlike Docker.