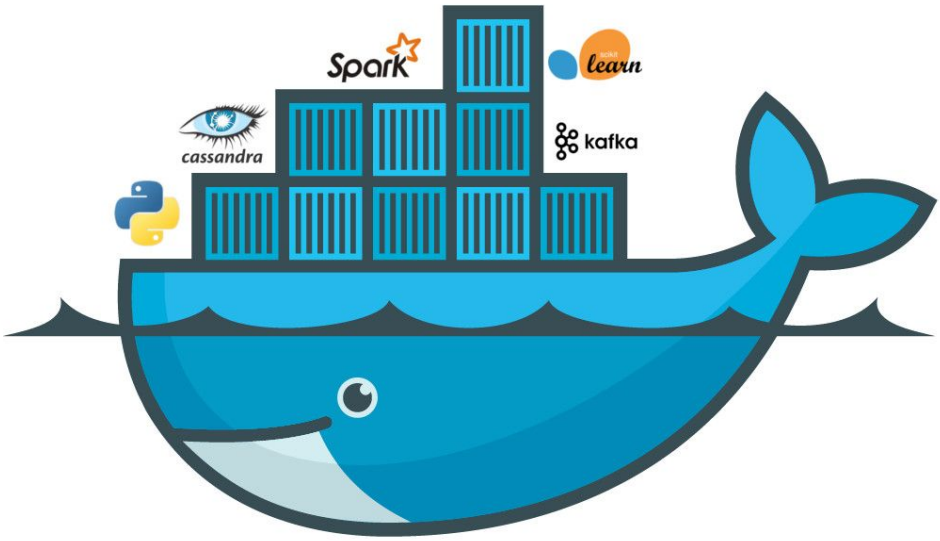
Seminar Laboratory

Containerised Web-Hosting

Sahil S. Gothoskar.



ABSTRACT

I studied the market and observed that today's technology companies are migrating from Virtual Machines to Containers since they are lightweight , simple , easily scalable , modularity is achieved and many more.

My main motive for shifting various bulky sites from the various machines is same due to advanced users and also increasing number of users there is continuous need to keep the sites stable as well as they should also able to bear the load of millions of users in a single request.

So to meet my problem statement I have proposed a solution that I should shift my contents of my webpage to a container and make the website run on container flawlessly and without any hiccup, even if the number of users reach high.

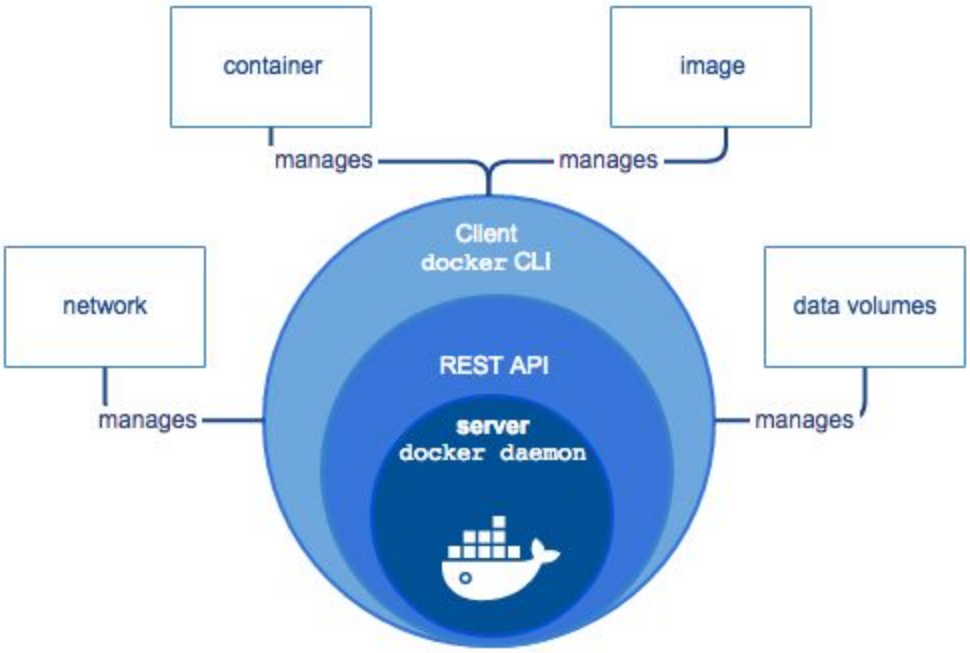
Key Points:

Docker , Containers, Vms , Bare Metal, Images, Scalability, Modularity,Volumes .,

Implementation:

Firstly, before going to implement the solution we shall have a brief look at the architecture of Docker Architecture . It consists of various attributes such as container, images, network,data volumes and it has three basic layers.

The three basic layers are Docker Cli , Rest Api , Docker Daemon.



The basic workflow of my idea is that I'll on Docker Engine first we need to install docker engine on our machine better if it is a linux machine. We can also perform in windows machine as well but the problem is that if we install docker on windows host and then try to run the docker engine then windows machine creates a linux environment for docker engine and then run it, which is the same as directly running on linux machine.

Aaditya, Sanket, Dheeraj, Sahil

After proper installations of docker engine on machine we need to restart and enable services permanently as it will load the service on kernel level. We will install or download a basic simple httpd image for our project and implement it.

The main ideology for implementation is that we will start docker container of httpd with a data volumes attached to it which will contain the contents of the webpage which we want to host. We will also add specific port for the container if we need that for our use case. This will make our project more agile and progressive. If we ant to autoscale the containers then we could either use prometheus, hawkular and other monitoring tools if needed else we could use other orchestration tool which will handle the docker containers without any error.

Domain:

Opensource, Containers , Agile development , networking , automation, linux.