**What is docker?**

* A container management service.
* The keywords of Docker are **develop, ship** and **run** anywhere.
* The whole idea of Docker is for developers to easily develop applications, ship them into containers which can then be deployed anywhere.
* Docker Hub is a registry service on the cloud that allows you to download Docker images that are built by other communities.
* By taking advantage of Docker’s methodologies for shipping, testing, and deploying code quickly, one can significantly reduce the delay between writing code and running it in production.
* Docker provides the ability to package and run an application in a loosely isolated environment called a container
* Containers are instances of Docker images that can be run using the Docker run command. The basic purpose of Docker is to run containers.
* Containers are lightweight because they don’t need the extra load of a hypervisor, but run directly within the host machine’s kernel.
* Due to difference in computing environment there r clashes b/w dev and prod
* Microservices- small process which interact with each other to fulfill one goal
* Adv of microservice: some appliations are very efficient and easier to build and maiantain when the service is broken down into smaller services. If any on microservice gos down than the application remains largely unaffected.
* Each dependency has some depency with it. In this there is wastage of space
* We use docker machin in top of vms
* Docker containers are lightweight alternatives of virtual m achine and we don’t need to relocate disk space it can allocate itself according to its requirement
* Whatever dependencies required for application are in docker image
* Docker containers are run time instance of docker image
* \*\*\*Docker iamges are huge in size and rquire greater network bandwidth.