Containers

Docker

Docker is a container id s lightweight standalone executable package of software that will include everything needed to run an application. They package all the code, libraries and dependencies together. This will allow many different contains run in the same host so you can make the hosts resources more efficient. Docker container is an instance of the image and a docker image is a blueprint of the container.

Docker is easy to learn and easy to use. It is good because apps using docker don’t need their own environment. It makes it easier to maintain because you only have to worry about the app and not the system. It has its own dependencies which will mean there will be no conflicting versions. It can become a fully automated process which makes it easy to use. Containers are a technology that allows us to isolate certain kernel processes and trick them into thinking they're the only ones running in a completely new computer. Containers are small and faster than VMS. Docker was release in 2010 and is being developed since. These containers will reference the parent image. A Docker container is a packaged collection of all the app's libraries and dependencies already prebuilt and ready to be executed.

A lot of companies have migrated over from VMs to containers not only because they're much lighter and faster to spin up, but also because they're extremely easy to maintain.

A single container can be versioned using its Dockerfile (we'll get to images in the next section), so it makes quite easy for one developer (or even a small team of developers) to run and maintain a whole ecosystem of containers. On the other hand, you would need an infrastructure person just to be able to run and housekeep VMs.

Docker images are instructions written in a special file. It has its own syntax and defines the steps docker will take to build the container.