DOCKER PART 1

1. What is container and why do we need them?

A container is a software packages that consist of all the dependencies required to run an application from one computing environment to another one without any issue.

We need them because they are a streamlined way to build, test deploy and redeploy applications. They required less resources and allowed applications to be more rapidly deployed.

1. What mean host an application?

The host of an application, it is the third-party responsible for ensuring the maintenance, security and uptime of the application.

In another words, you can also say that to host an application is put that application inside a server with all dependencies so end user can browse them

1. What are some webserver host and application that you know and their default port?

NGNIX= port 8080 it is 80

HTTP= port 80

HTTPS= port 443

APACHE 2= port 80

Tomcat port 8080, ssh port 22, dns port 53 there is a lot but that are some that we will use for devops

1. What is the difference between type1 and type2 hypervisor?

The difference is that, with type hypervisor we install hypervisor software on top of the hardware. On the other hand, with type II we install hypervisor on top of the host operating system. Type I is most used in enterprise computing while type II are reserved for clients, end-users. The type II is less secure because all the work of every virtual machines has to pass through the operating system, any security vulnerabilities in the host could compromise others VM. Unlike it, the type I is more secure91.

1. Define software, hardware, OS, application and give an example of each

Software is a program or a set of instructions associated with OS. Windows 11

Hardware consists of the external and internal physical parts of a computer. Mother board

Operating system is the software that supports a computer’s basic functions. It manages computer hardware and software. Android

Application is software package that perform a specific function directly for the end user or other applications. WhatsApp

1. What are 2 limitations of hypervisor that docker engine resolve?

* Application deployment issue because the computing environment and dependencies of the developers were totally different of the environment of devops engineer or testers.
* Port issue. It was impossible to install 2 applications on a virtual machine when the webservers who were responsible to launch those app used the same port.

1. Explain the concept of port forwarding in docker

Port forwarding in Docker redirects the communication request from one IP address or one port number to another. Mostly use for port. Example if you have many containers on a host OS all of them using port 80, you can set a way request from outside on port 8080:80 redirect to container 1, on port 8081:80 redirect to container 2, port 8082:80 to container 3 and so on

1. What is legacy application?

Its an application that is obsolete. And that some companies still want to keep them for some reasons