DOCKER PART II

1. What is image?

It is the output of the writing of a docker file with a set of instructions. It is used to create a container. Not only from Docker file, might be from any registry like docker hub

1. Explain the process of containerization.

Containerization it is the process uses to create a container.

When we open a docker file and set instructions, we build something call image, we pull that image in the image repository and when we run that image, it creates a container.

When the code for an application is ready, we wrap it together with all its dependencies and config files, so we can build it as image and push it as container in the registry.

1. List some containerization environments.

Kubernetes, Docker, LXC, Container Linux, Amazon Elastic compute Cloud

Docker swarm

Aws elastic Kubernetes Services, AWS Elastic Containers Services

1. What is container orchestration?

It all the process used to automate, manage, deploy, networking and scaling many containers at the same time.

1. What is container registry and list some of them?

A container registry is a collection of repositories, it is a service that stores and distributes containers images.

Docker hub, AWS Elastic Container Registry, Azure Container Registry, Google Container Registry.

1. What is repository in docker and provide the name convention for image there?

A repository it is a collection of containers images, is where we store, pull, push and run images.

Naming convention is: <<username>>/repositoryname:tag.

1. How do you make sure that you are choosing a save image in the repo?

We need to make sure that the base image it’s official. We must also name that image, otherwise, the system will assign to it a random name and it will be difficult to find it.

1. What happen in the backend when you type docker pull centos7

When we run the command Docker Pull Centos7, the system it is going to check first if we have an image call centos:7 in our local server. If the image exist already, it is not going to pull it. If it does not exist, Docker will pull it from the repository to our local server.

1. How can I create and login to a container from the image that I just pull and make sure that it will be destroy when I logout?

To create a container, I must run the image by running the command:

Docker run --rm --name (container name) -it (image ID) bash

To have the image ID, we must grep that specific image |grep centos:7

DOCKER RUN: run an image to create a container.

--RM: means destroy the container when I logout.

1. What means -i, -t, -d or -p after docker run CLI?

-I: interactive mode -t: terminal, -d: detach mode, -p: port

1. How can I demonstrate that the container run the same kernel with my OS?

From the master server, I can run an image and create a container. Also, it is possible to see and even kill all the processes that is running inside the container from the host OS.

1. What is the default path where to access the web contain file for httpd, nginx and tomcat container from official image?

We can access them through the registry (docker hub) /usr/local/apache2/htdocs/html

/usr/share/nginx/html /usr/local/tomcat/webapps/html