**Docker:**

Docker is tool designed to make it easier to create, deploy and run applications by using containers.

Docker containers are lightweight alternatives to Virtual Machines, and it uses the host OS.

**Dockerfile:** contains actual code, lib, bin, dependencies.

**Dockerfile** builds a **Dockor image > Docker image** contains actual code and its dependencies

We can run **Docker image** to create as many **Docker containers** s we want**.**

Then this image can be uploaded on **Docker Hub (**is like Git repository)from **Docker hub** any once pull the **Docker images** and **build a Docker container.**

**\*Docker can build images automatically by reading the instructions from Dockerfile.**

**\*Docker containers are running instances of Dockers images.**

**\*A Single Docker image can be used to create multiple containers.**

**Install the Docker**

* download from **docker toolbox** for Windows > Click “Get Docker for Windows “ to download
* go to **Docker Quickstart** -- (command line)

**Docker commands:**

**Basic**

Docker –version ---- to get docker version info

Docker ---- to view all the docker commands

Docker -v ---- to get docker version

Docker info ---- to get more detailed info about docker

Docker - - help ---- info about commands

Docker login ----

**Images**

Docker images ---- to get list of images

Docker pull <image name> ---- to pull the image from the repository

Docker rmi <image name> ---- to remove image

**dockerContainers**

Docker ps ---- to get the list of containers

Docker run ---- to run the image

Docker start ---- to run one or more stopped containers

Docker stop ---- to stop one or more stopped containers

**System**

Docker stats ---- display a live stream of containers (s) resource usage stats.

Docker system df ---- shows the disk usage

Docker system prune ---- remove unused data

**How to create Dockerfile ?**

Dockerfile is a text file where give instructions to create images.

Step 1 : we need to create a file named Dockerfile( file name can be any).

We do to desktop and create folder by DockerFiles

>mkdir DockerFiles

> then go into that folder.