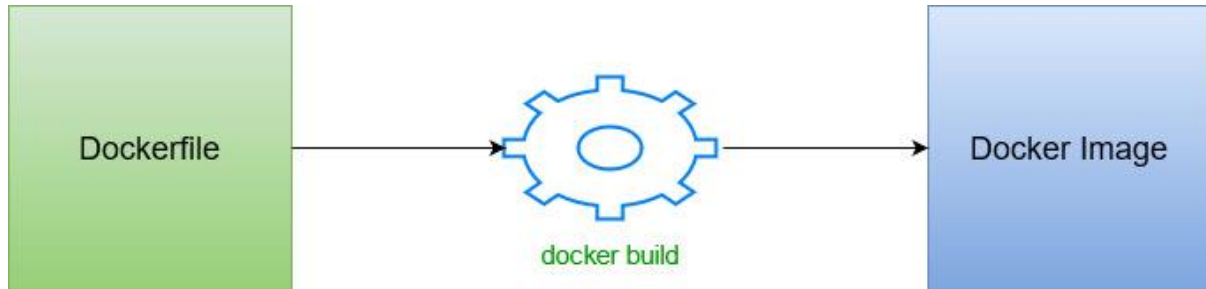# Assignment-2

Concept of Docker File

Dockerfile is a simple text file with instructions to build a Docker image. As shown below Dockerfile is a simple text file where we give some instructions to build an image. And when we run **docker build** command a file image gets created.

If you want to create your own image you can use a dockerfile. So **dockerfile is basically automation of docker image creation** and there are some basic instructions that you use in the docker file. Let's check out how it's done.

STEPS TO CREATE DOCKER
- Create a file named Dockerfile .
- Add instructions in Dockerfile .
- Build Dockerfile to create image.
- Run image to create container.

How we create docker file?

1.Create a folder in your system or machine .
2.Create a new file named "Dockerfile" .

mkdir Dockerfiles

cd Dockerfiles/

touch Dockerfile

code .

ADDING INSTRUCTIONS IN DOCKERFILE
1.Add a base image to your file e.g. UBUNTU OR SCRATCH.
2.You can give the maintainer name or email or just email
3 .RUN command is executed during building the image.
4.CMD is executed when you create a container out of the image.


```
#getting a base image

FROM ubuntu #optional field

MAINTAINER {NAME} <EMAIL>

RUN apt-get update
```

```
CMD ["echo","Hello world ...! from my first docker image"]
```



```
bhushan@ubuntu:~$ ls
Desktop     Downloads  Pictures  snap        Videos
Documents   Music      Public    Templates
bhushan@ubuntu:~$ mkdir docker-pract
bhushan@ubuntu:~$ cd docker-pract/
bhushan@ubuntu:~/docker-pract$ vi dockerfile
bhushan@ubuntu:~/docker-pract$ cat dockerfile
FROM ubuntu
MAINTAINER {NAME} <EMAIL>
RUN apt-get update
CMD ["echo","Hello world ...! from my first docker image"]
bhushan@ubuntu:~/docker-pract$ █
```

FROM, PULL, RUN, and CMD

- FROM - Creates a layer from the ubuntu:18.04

- PULL - Adds files from your Docker repository

- RUN - Builds your container

- CMD - Specifies what command to run within the containe

How we build docker?

With the help of following syntax:

Syntax:

docker build -t imagename:tagname "Docker File Location"

Examples:-

Docker build -t myfirstimage:1.0 .


```
bhushan@ubuntu:~/docker-pract$ docker build -t testimage:1.1 .
Sending build context to Docker daemon  2.048kB
Step 1/4 : FROM ubuntu
latest: Pulling from library/ubuntu
2ab09b027e7f: Already exists
Digest: sha256:67211c14fa74f070d27cc59d69a7fa9aeff8e28ea118ef3babc295a0428a6d21
Status: Downloaded newer image for ubuntu:latest
 ---> 08d22c0ceb15
Step 2/4 : MAINTAINER {NAME} <EMAIL>
 ---> Running in 59a2fc58471b
Removing intermediate container 59a2fc58471b
 ---> 44abcdcea227
Step 3/4 : RUN apt-get update
 ---> Running in ce7bce9b824c
Get:1 http://security.ubuntu.com/ubuntu jammy-security InRelease [110 kB]
Get:2 http://archive.ubuntu.com/ubuntu jammy InRelease [270 kB]
Get:3 http://archive.ubuntu.com/ubuntu jammy-updates InRelease [119 kB]
Get:4 http://security.ubuntu.com/ubuntu jammy-security/multiverse amd64 Package
s [23.2 kB]
```

Checking the above build image:

1.run the following command:

docker images

RUNNING DOCKER IMAGE

docker run {IMAGE ID}