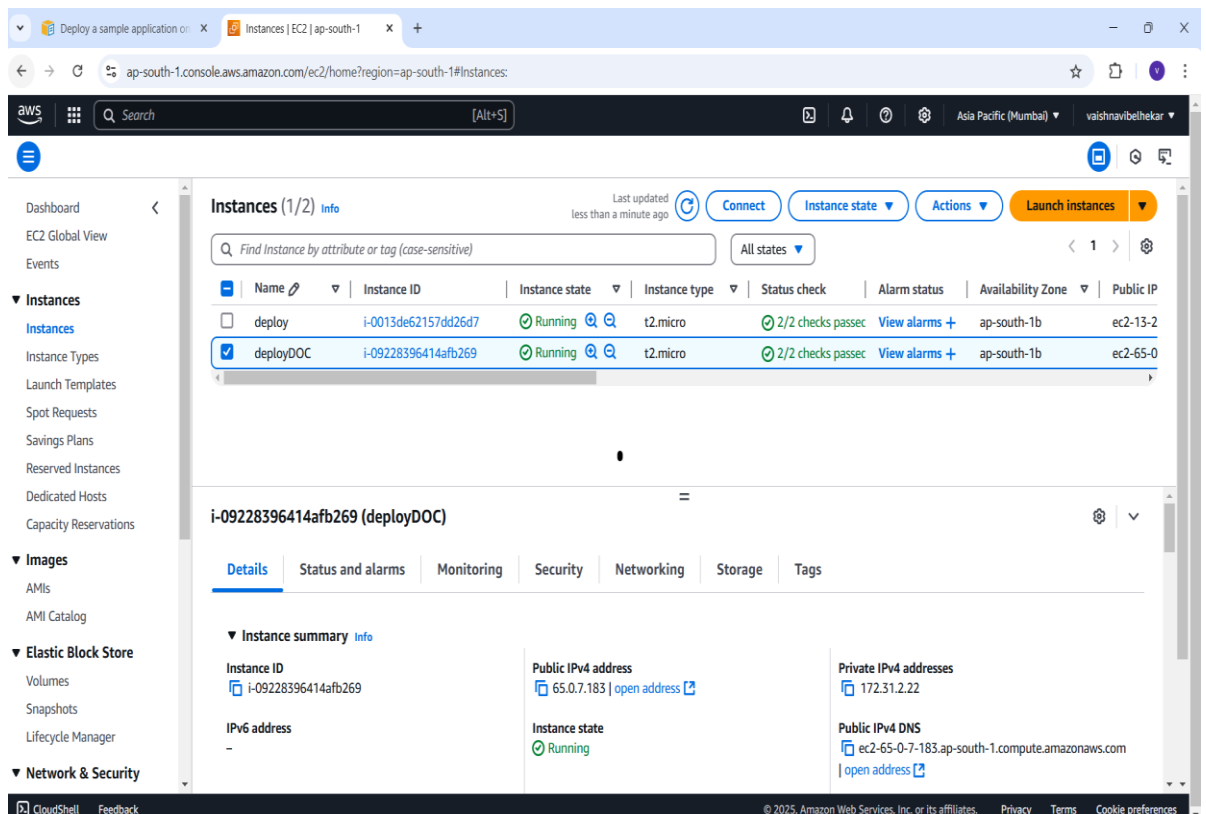# Dockerfile

What is Docker?
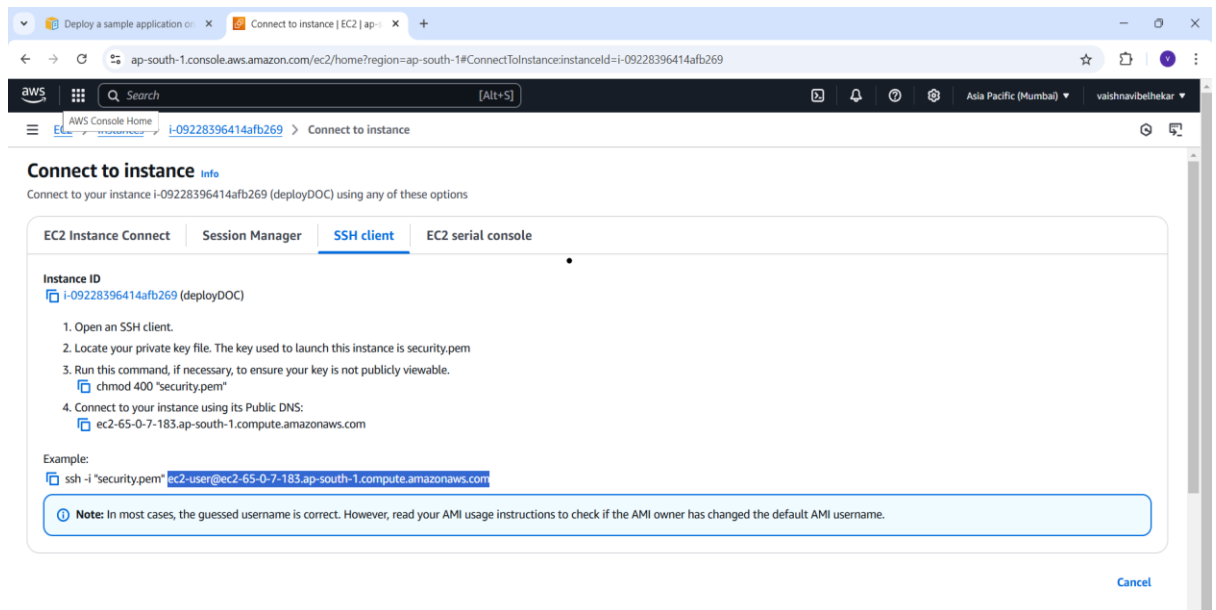
**Docker** is a set of [platform as a service](#) (PaaS) products that use [OS-level virtualization](#) to deliver software in packages called [*containers*](#). The service has both free and premium tiers. The software that hosts the containers is called **Docker Engine**.

## Steps:-

- Launch linux instance



- Connect with the instance

- For connecting the instance copy the public DNS of instance
- Open the putty application and paste it in **Host Name**



- After connecting apply the commands
  - -sudo su
  - -yum update-y

- yum install docker

```
root@ip-172-31-2-22:/home/ec2-user

Using username "ec2-user".
Authenticating with public key "security"
      ,       #_
   ~\_  ####_         Amazon Linux 2023
  ~~  \_#####\
  ~~     \###|
  ~~       \#/ ___    https://aws.amazon.com/linux/amazon-linux-2023
   ~~       V~' '->
    ~~~         /
      ~~._.   _/
         _/ _/
       _/m/'
[ec2-user@ip-172-31-2-22 ~]$ sudo su
[root@ip-172-31-2-22 ec2-user]# yum update -y
Last metadata expiration check: 0:05:43 ago on Tue Jan 21 12:45:31 2025.
Dependencies resolved.
Nothing to do.
Complete!
[root@ip-172-31-2-22 ec2-user]# yum install docker
Last metadata expiration check: 0:06:02 ago on Tue Jan 21 12:45:31 2025.
Dependencies resolved.
================================================================================
 Package                Arch      Version              Repository     Size
================================================================================
Installing:
 docker                 x86_64    25.0.6-1.amzn2023.0.2  amazonlinux    44 M
Installing dependencies:
 containerd             x86_64    1.7.23-1.amzn2023.0.1  amazonlinux    36 M
 iptables-libs          x86_64    1.8.8-3.amzn2023.0.2   amazonlinux   401 k
 iptables-nft           x86_64    1.8.8-3.amzn2023.0.2   amazonlinux   183 k
 libcgroup              x86_64    3.0-1.amzn2023.0.1     amazonlinux    75 k
 libnetfilter_conntrack x86_64    1.0.8-2.amzn2023.0.2   amazonlinux    58 k
 libnfnetlink           x86_64    1.0.1-19.amzn2023.0.2  amazonlinux    30 k
 libnftnl               x86_64    1.2.2-2.amzn2023.0.2   amazonlinux    84 k
 pigz                   x86_64    2.5-1.amzn2023.0.3     amazonlinux    83 k
 runc                   x86_64    1.1.14-1.amzn2023.0.1  amazonlinux   3.2 M

Transaction Summary
================================================================================
Install  10 Packages

Total download size: 84 M
Installed size: 317 M
Is this ok [y/N]: y
```

- service docker status

- service docker start

- docker pull ubuntu

- vi index.html

     <h1>welcome to teknowell</h1>

- cat index.html

- docker images

-vi Dockerfile

FROM ubuntu
RUN apt update -y
RUN apt-get install apache2 -y
COPY index.html /var/www/html
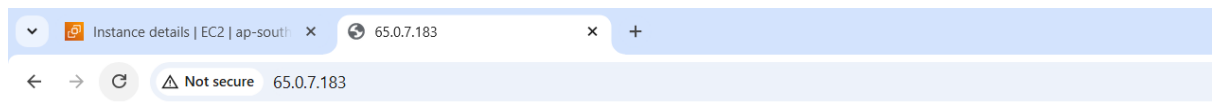EXPOSE 80
CMD ["apachectl","-D","FOREGROUND"]

-cat Dockerfile
-docker build -t img:v1 .
-docker images

```
root@ip-172-31-2-22:/home/ec2-user

[root@ip-172-31-2-22 ec2-user]# docker build -t img1:v1 .
[+] Building 0.5s (6/8)                                          docker:default
 => [internal] load build definition from Dockerfile                      0.0s
 => => transferring dockerfile: 238B                                      0.0s
 => [internal] load metadata for docker.io/library/ubuntu:latest         0.0s
 => [internal] load .dockerignore                                         0.0s
 => => transferring context: 2B                                          0.0s
 => [1/4] FROM docker.io/library/ubuntu:latest                           0.0s
 => [internal] load build context                                        0.0s
 => => transferring context: 127B                                        0.0s
 => ERROR [2/4] RUN apt updater -y                                        0.3s
------
 > [2/4] RUN apt updater -y:
0.300
0.301 WARNING: apt does not have a stable CLI interface. Use with caution in scr
ipts.
0.302
0.302 E: Invalid operation updater
------
Dockerfile:2
--------------------
   1 |     FROM ubuntu
   2 | >>> RUN apt updater -y
   3 |     RUN apt-get install apache2 -y
   4 |     COPY index.html /var/www/html
--------------------
ERROR: failed to solve: process "/bin/sh -c apt updater -y" did not complete suc
cessfully: exit code: 100
[root@ip-172-31-2-22 ec2-user]# vi Dockerfile
[root@ip-172-31-2-22 ec2-user]# docker build -t img1:v1 .
[+] Building 23.6s (9/9) FINISHED
 => [internal] load build definition from Dockerfile                      
 => => transferring dockerfile: 237B                                     
 => [internal] load metadata for docker.io/library/ubuntu:latest        
 => [internal] load .dockerignore                                        
 => => transferring context: 2B                                         
 => CACHED [1/4] FROM docker.io/library/ubuntu:latest                   
 => [internal] load build context                                        
 => => transferring context: 90B                                        
 => [2/4] RUN apt update -y                                              
 => [3/4] RUN apt-get install apache2 -y                                 
 => [4/4] COPY index.html /var/www/html                                  
 => exporting to image                                                   
 => => exporting layers                                                  
 => => writing image sha256:979c3fbd287e1bc0bac057e14de76a3151d4dfc1ee0099b6a0724333d30664a2
 => => naming to docker.io/library/img1:v1                               
[root@ip-172-31-2-22 ec2-user]# 
```

-docker run -p 80:80 image id

# output

Instance details | EC2 | ap-south ✕    🌐 65.0.7.183 ✕   +

← → C   ⚠ Not secure   65.0.7.183

**wellcome to teknowell**