Module - 9

Containerization, Docker, and Docker Hub

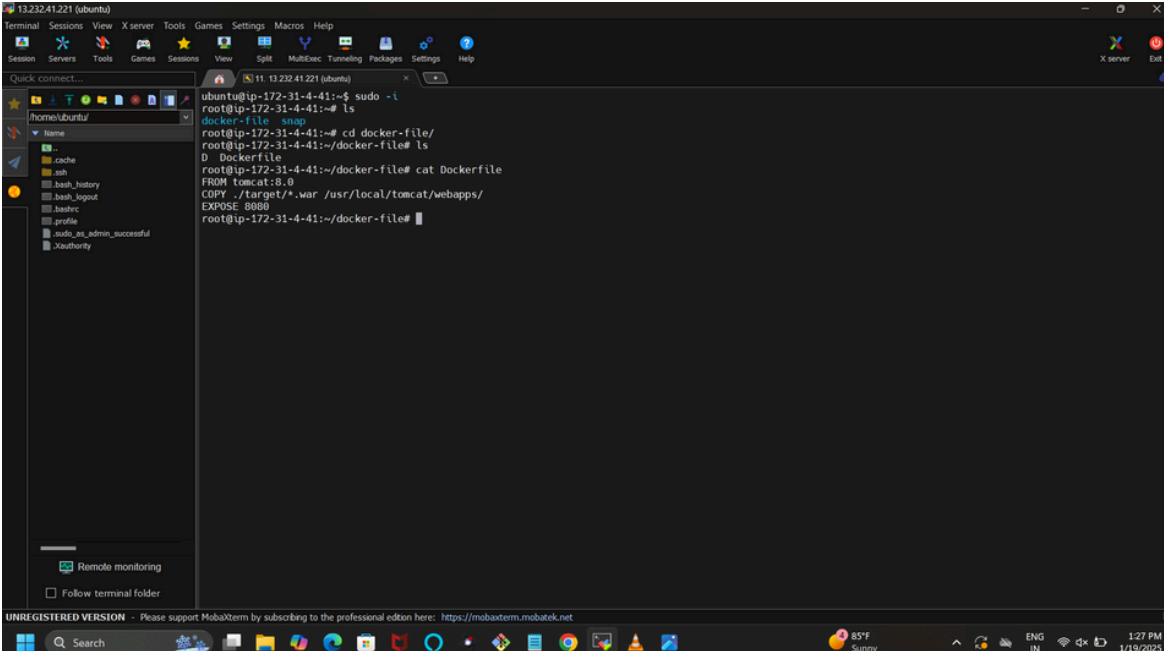### Assignment

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L1-

Create Docker file and build the docker container Application Image for the application build in Jenkins Module
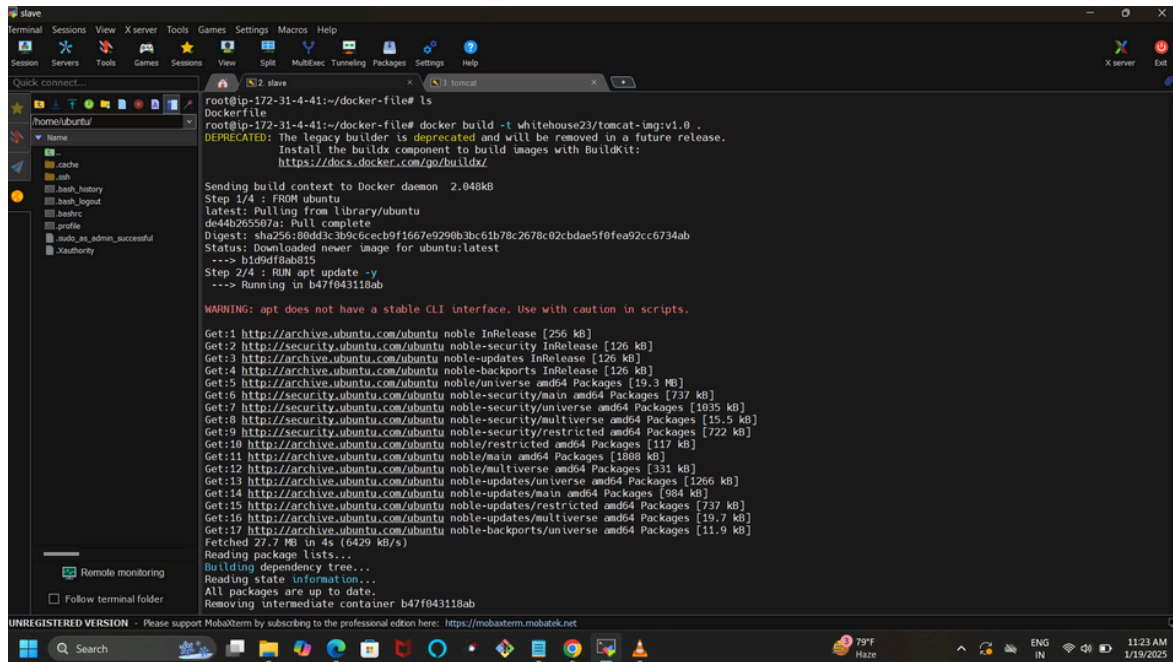
Step 1

creating a docker folder and creating a docker file in it then after creating a an image from the file

Screenshot 1 (MobaXterm - slave):
```
FROM tomcat:8.0
COPY ./target/*.war /usr/local/tomcat/webapps
EXPOSE 8080
```
"Dockerfile" 3L, 74B   3,1   All

Screenshot 2 (11. 13.232.41.221 (ubuntu)):
```
root@ip-172-31-4-41:~/docker-file# docker images
REPOSITORY              TAG      IMAGE ID        CREATED        SIZE
whitehouse23/tomcat-img v1.0     889551362689    2 hours ago    487MB
ubuntu                  latest   b1d9df8ab815    2 months ago   78.1MB
tomcat                  8.0      ef6a7c98d192    6 years ago    356MB
root@ip-172-31-4-41:~/docker-file# docker ps -a
CONTAINER ID   IMAGE                        COMMAND      CREATED         STATUS                    PORTS
b522b99e6380   whitehouse23/tomcat-img:v1.0 "/bin/bash"  18 minutes ago  Up 18 minutes             0.0.0.0:8089->8080/tcp, :::8089->
nstein
5a238482e5e2   whitehouse23/tomcat-img:v1.0 "bash"       20 minutes ago  Exited (0) 19 minutes ago
albattani
bf071219085a   whitehouse23/tomcat-img:v1.0 "bash"       2 hours ago     Exited (0) 2 hours ago
bin
root@ip-172-31-4-41:~/docker-file#
```


Screenshot 3 (MobaXterm - slave):
```
root@ip-172-31-4-41:~/docker-file# ls
Dockerfile
root@ip-172-31-4-41:~/docker-file# docker build -t whitehouse23/tomcat-img:v1.0 .
DEPRECATED: The legacy builder is deprecated and will be removed in a future release.
            Install the buildx component to build images with BuildKit:
            https://docs.docker.com/go/buildx/

Sending build context to Docker daemon  2.048kB
Step 1/4 : FROM ubuntu
latest: Pulling from library/ubuntu
de44b265507a: Pull complete
Digest: sha256:80dd3c3b9c6cecb9f1667e9290b3bc61b78c2678c02cbdae5f0fea92cc6734ab
Status: Downloaded newer image for ubuntu:latest
 ---> b1d9df8ab815
Step 2/4 : RUN apt update -y
 ---> Running in b47f043118ab

WARNING: apt does not have a stable CLI interface. Use with caution in scripts.

Get:1 http://archive.ubuntu.com/ubuntu noble InRelease [256 kB]
Get:2 http://security.ubuntu.com/ubuntu noble-security InRelease [126 kB]
Get:3 http://archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Get:4 http://archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]
Get:5 http://archive.ubuntu.com/ubuntu noble/universe amd64 Packages [19.3 MB]
Get:6 http://security.ubuntu.com/ubuntu noble-security/main amd64 Packages [737 kB]
Get:7 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Packages [1035 kB]
Get:8 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Packages [15.5 kB]
Get:9 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Packages [722 kB]
Get:10 http://archive.ubuntu.com/ubuntu noble/restricted amd64 Packages [117 kB]
Get:11 http://archive.ubuntu.com/ubuntu noble/main amd64 Packages [1808 kB]
Get:12 http://archive.ubuntu.com/ubuntu noble/multiverse amd64 Packages [331 kB]
Get:13 http://archive.ubuntu.com/ubuntu noble-updates/universe amd64 Packages [1266 kB]
Get:14 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 Packages [984 kB]
Get:15 http://archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Packages [737 kB]
Get:16 http://archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 Packages [19.7 kB]
Get:17 http://archive.ubuntu.com/ubuntu noble-backports/universe amd64 Packages [11.9 kB]
Fetched 27.7 MB in 4s (6429 kB/s)
Reading package lists...
Building dependency tree...
Reading state information...
All packages are up to date.
Removing intermediate container b47f043118ab
```

L2-
Create the Container using the same Application Image and run the application in a Web Browser using container port mapping

Creating an container from the image we creatred using docker file