

Task: 10

Create a docker image and push it to docker push using CI-CD.

Create one EC2 instance (ubuntu), login server(ssh), next install Jenkins and docker. (within the root user)

Allow inbound traffic 8080 and 3000 ports.

```
MINGW64:/c/Users/Rushika/Downloads
Rushika@Rushika MINGW64 ~/Downloads (main)
$ ssh -i "jenkins-key.pem" ubuntu@ec2-3-110-185-71.ap-south-1.compute.amazonaws.com
The authenticity of host 'ec2-3-110-185-71.ap-south-1.compute.amazonaws.com (3.110.185.71)' can't be established.
ED25519 key fingerprint is SHA256:QiCz5lirxaKhVwtBJBD+Dv3eqGKyDN90CG+ZR+IAb+k.
This host key is known by the following other names/addresses:
  ~/.ssh/known_hosts:227: ec2-43-204-236-61.ap-south-1.compute.amazonaws.com
  ~/.ssh/known_hosts:230: ec2-43-204-232-11.ap-south-1.compute.amazonaws.com
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'ec2-3-110-185-71.ap-south-1.compute.amazonaws.com' (ED25519) to the list of known hosts.
Welcome to Ubuntu 22.04.3 LTS (GNU/Linux 6.2.0-1018-aws x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/pro

System information as of Mon Mar 11 16:58:26 UTC 2024

System load:  0.04248046875      Processes:           100
Usage of /:   23.0% of 7.57GB    Users logged in:     0
Memory usage: 20%               IPv4 address for eth0: 172.31.5.198
Swap usage:   0%
```

Jenkins

```
root@ip-172-31-5-198:~# apt install jenkins
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
jenkins is already the newest version (2.448).
0 upgraded, 0 newly installed, 0 to remove and 37 not upgraded.
```

Docker install and check docker run or not

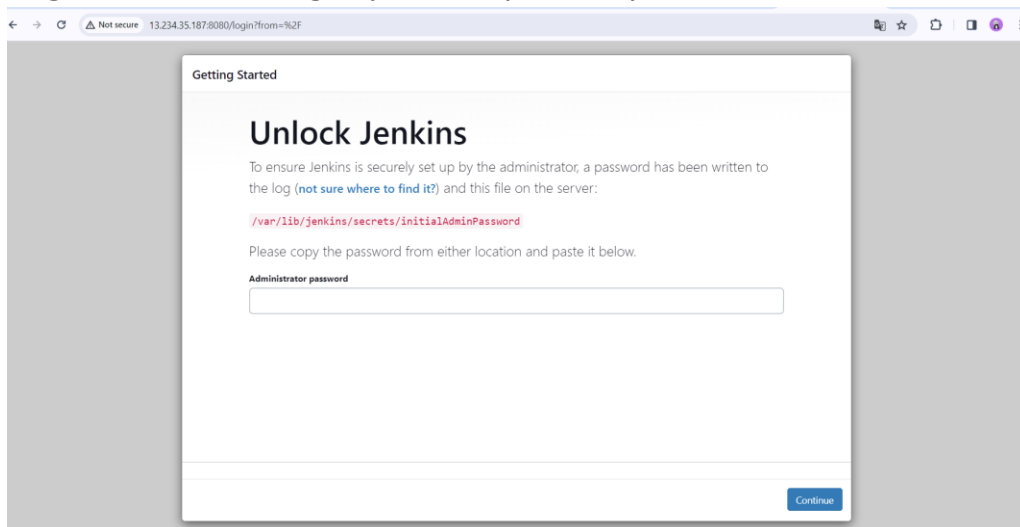
```
root@ip-172-31-5-198:~# systemctl status docker
● docker.service - Docker Application Container Engine
   Loaded: loaded (/lib/systemd/system/docker.service; enabled; vendor preset: enabled)
   Active: active (running) since Mon 2024-03-11 17:12:22 UTC; 32min ago
   TriggeredBy: ● docker.socket
     Docs: https://docs.docker.com
    Main PID: 6128 (dockerd)
      Tasks: 10
     Memory: 36.8M
        CPU: 7.055s
    CGroup: /system.slice/docker.service
            └─6128 /usr/bin/dockerd -H fd:// --containerd=/run/containerd/cont

Mar 11 17:12:22 ip-172-31-5-198 dockerd[6128]: time="2024-03-11T17:12:22.596264Z"
Mar 11 17:12:22 ip-172-31-5-198 dockerd[6128]: time="2024-03-11T17:12:22.596868Z"
Mar 11 17:12:22 ip-172-31-5-198 dockerd[6128]: time="2024-03-11T17:12:22.840845Z"
Mar 11 17:12:22 ip-172-31-5-198 systemd[1]: Started Docker Application Container Engine.
Mar 11 17:15:55 ip-172-31-5-198 dockerd[6128]: time="2024-03-11T17:15:55.860900Z"
Mar 11 17:15:56 ip-172-31-5-198 dockerd[6128]: time="2024-03-11T17:15:56.317486Z"
Mar 11 17:15:56 ip-172-31-5-198 dockerd[6128]: time="2024-03-11T17:15:56.593662Z"
Mar 11 17:16:04 ip-172-31-5-198 dockerd[6128]: time="2024-03-11T17:16:04.278831Z"
Mar 11 17:16:08 ip-172-31-5-198 dockerd[6128]: time="2024-03-11T17:16:08.944336Z"
Mar 11 17:16:09 ip-172-31-5-198 dockerd[6128]: time="2024-03-11T17:16:09.022667Z"
lines 1-22/22 (END)
```

Create Jenkins user within docker

```
root@ip-172-31-5-198:~# usermod -aG docker jenkins
root@ip-172-31-5-198:~# systemctl restart jenkins
```

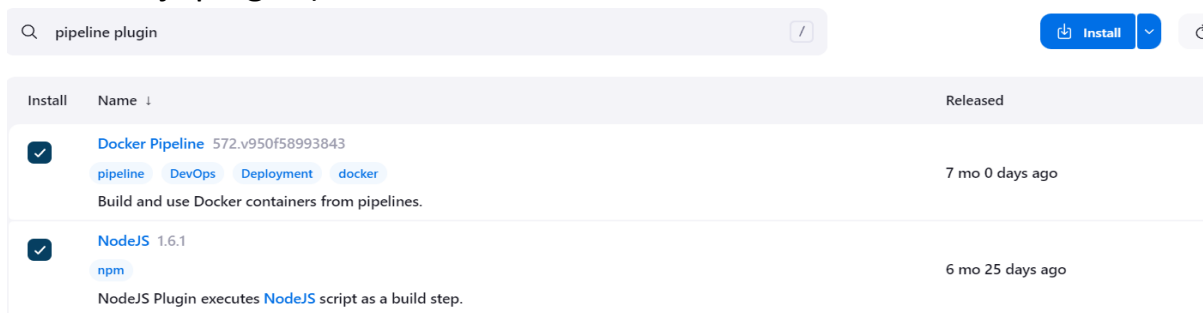
Login Jenkins, using my server port <http://3.110.185.71:8080/>



Install suggested plugins.

Give username and password.

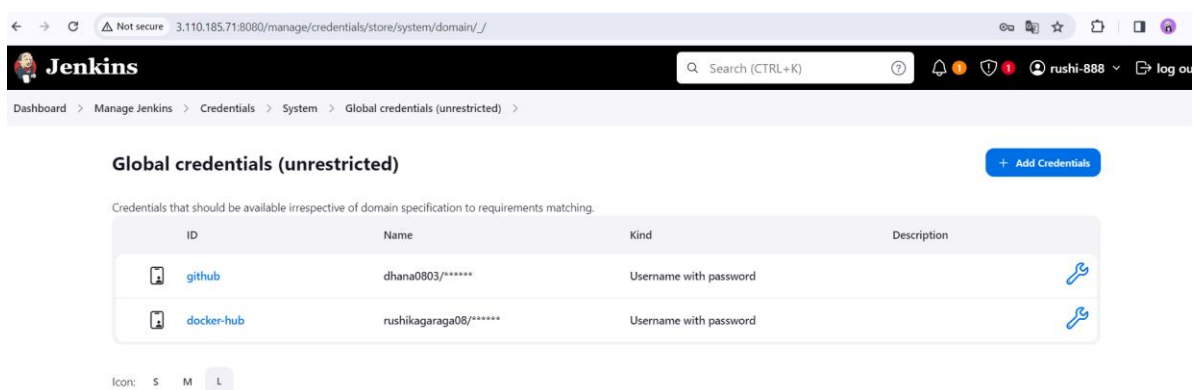
Install necessary plugins. (go to manage Jenkins > click plugins > install docker and nodejs plugins)



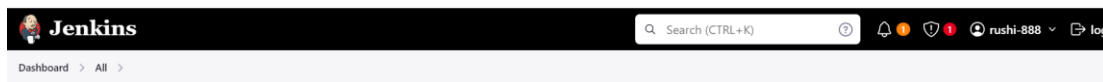
Manage credentials

➤ Docker Hub

➤ GITHUB



Create new job



Enter an item name

» This field cannot be empty, please enter a valid name

Freestyle project
Classic, general-purpose job type that checks out from up to one SCM, executes build steps serially, followed by post-build steps like archiving artifacts and sending email notifications.

Pipeline
Orchestrates long-running activities that can span multiple build agents. Suitable for building pipelines (formerly known as workflows) and/or organizing complex activities that do not easily fit in free-style job type.

Multi-configuration project
Suitable for projects that need a large number of different configurations, such as testing on multiple environments, platform-specific builds, etc.

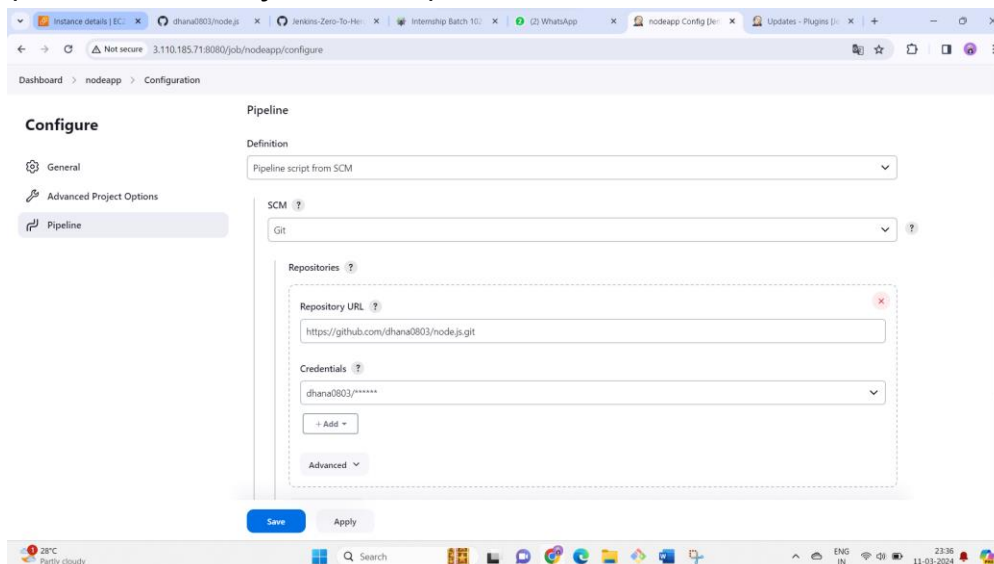
Folder
Creates a container that stores nested items in it. Useful for grouping things together. Unlike view, which is just a filter, a folder creates a separate namespace, so you can have multiple things of the same name as long as they are in different folders.

OK Cancel

Configure node pipeline.

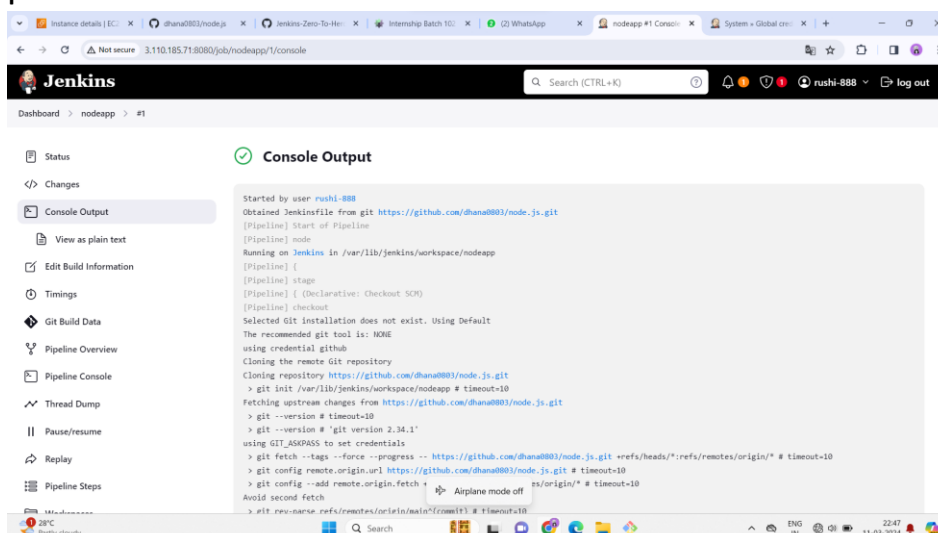
I used SCM (GitHub) to build the pipeline.

This is my Gitrepo URL: <https://github.com/dhana0803/node.js.git>
(Dockerfile and jenkinsfile)



Next save it.

Next build the code, then automatically the docker image will be built and pushed to the docker hub



Docker Hub

Instance details x dhana0803/nod... Jenkins-Zero-To... Internship Batch... (2) WhatsApp... nodeapp Config... Updates - Plugi... Docker Hub x + -

hub.docker.com


dockerhub Explore Repositories Organizations Search Docker Hub ctrl+K ? R

rushikagaraga08 Search by repository nam All Content Create repository

rushikagaraga08 / nodeapp


Contains: Image | Last pushed: about 1 hour ago

Security unknown ☆ 0 4 Public




Create An Organization

Create and manage users and grant access to your repositories.



28°C Partly cloudy

Search



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