Capstone project documentation

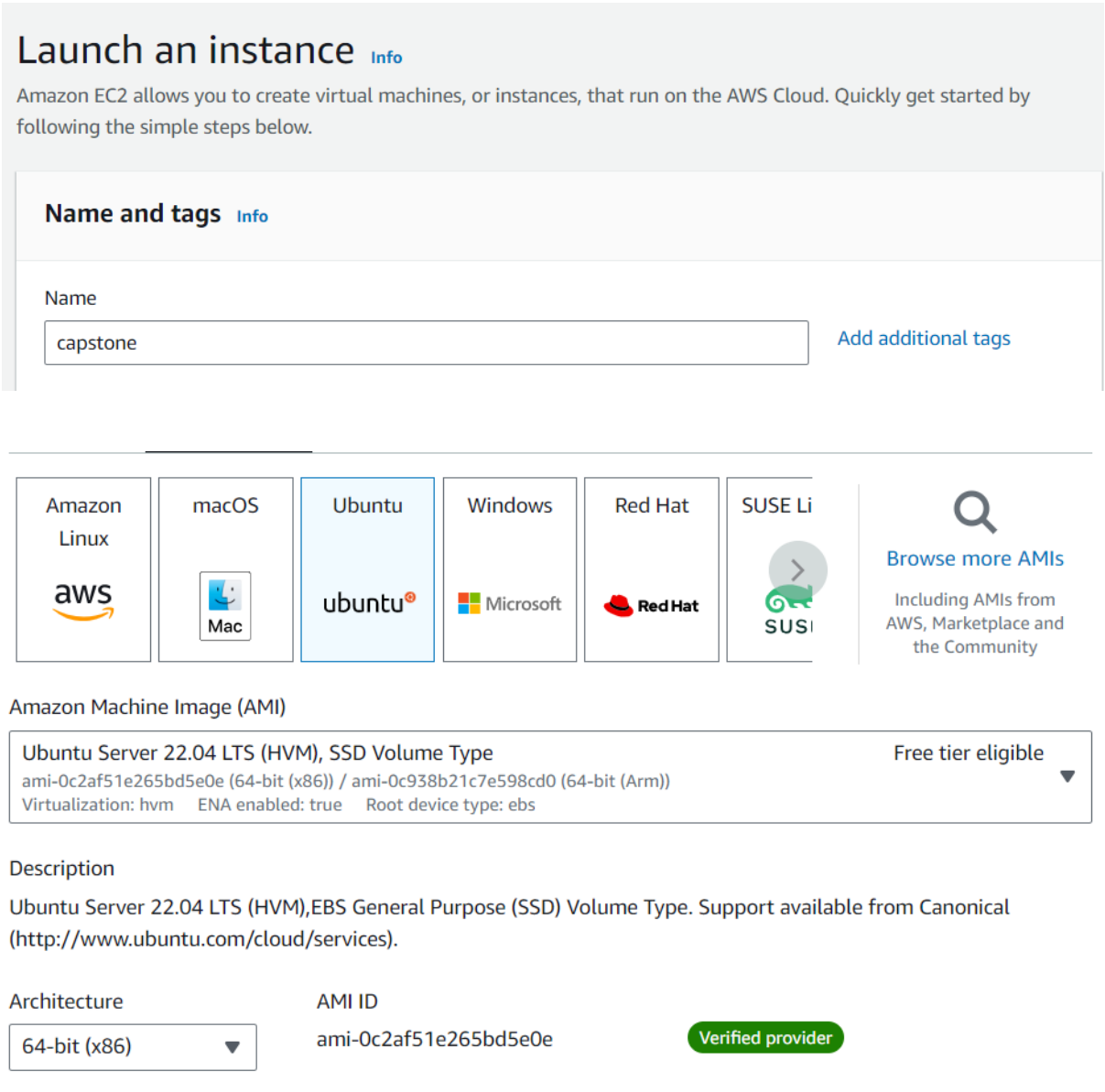
sharmi2504/capstone-project (github.com) [my github URL]

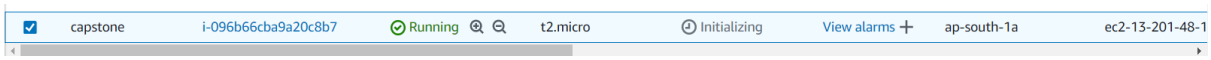
13.126.61.124:80 [deploy site URL]

Installing the necessary software's & services for this task:

1. **Git**
2. **Docker**
3. **Docker compose**
4. **Java**
5. **Jenkins**

Before install git. we have to launch an instance. select ubuntu





Connect that instance

1. Git installation:

sudo apt update

sudo apt install git -y

git --version

sudo apt update

```
Get:39 http://security.ubuntu.com/ubuntu noble-security/main amd64 c-n-f Metadata [3668 B]
Get:40 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Packages [249 kB]
Get:41 http://security.ubuntu.com/ubuntu noble-security/universe Translation-en [108 kB]
Get:42 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Components [8632 B]
Get:43 http://security.ubuntu.com/ubuntu noble-security/universe amd64 c-n-f Metadata [9220 B]
Get:44 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Packages [208 kB]
Get:45 http://security.ubuntu.com/ubuntu noble-security/restricted Translation-en [40.7 kB]
Get:46 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 c-n-f Metadata [420 B]
Get:47 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Packages [10.6 kB]
Get:48 http://security.ubuntu.com/ubuntu noble-security/multiverse Translation-en [2808 B]
Get:49 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Components [208 B]
Get:50 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 c-n-f Metadata [344 B]
Fetched 28.2 MB in 6s (5082 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
47 packages can be upgraded. Run 'apt list --upgradable' to see them.
ubuntu@ip-172-31-32-39:~$ sudo apt install git -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
git is already the newest version (1:2.43.0-1ubuntu7.1).
git set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 47 not upgraded.
ubuntu@ip-172-31-32-39:~$ git --version
git version 2.43.0
ubuntu@ip-172-31-32-39:~$
```

Clone the given repo

git clone https://github.com/sriram-R-krishnan/devops-build

```
ubuntu@ip-172-31-32-39:~$ git clone https://github.com/sriram-R-krishnan/devops-build
Cloning into 'devops-build'...
remote: Enumerating objects: 21, done.
remote: Counting objects: 100% (3/3), done.
remote: Compressing objects: 100% (3/3), done.
remote: Total 21 (delta 0), reused 0 (delta 0), pack-reused 18
Receiving objects: 100% (21/21), 720.09 KiB | 15.00 MiB/s, done.
ubuntu@ip-172-31-32-39:~$
```

```
ubuntu@ip-172-31-32-39:~$ mkdir caspstone1
ubuntu@ip-172-31-32-39:~$ cd caspstone1/
ubuntu@ip-172-31-32-39:~/caspstone1$
```

2. Docker installation:

sudo apt update

sudo apt install docker.io

sudo docker version

sudo usermod -aG docker ubuntu

sudo systemctl status docker

sudo apt update

```
ubuntu@ip-172-31-32-39:~$ sudo apt update
Hit:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble InRelease
Hit:2 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates InRelease
Hit:3 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports InRelease
Hit:4 http://security.ubuntu.com/ubuntu noble-security InRelease
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
47 packages can be upgraded. Run 'apt list --upgradable' to see them.
```

sudo apt install docker.io

```
ubuntu@ip-172-31-32-39:~$ sudo apt install docker.io
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  bridge-utils containerd dns-root-data dnsmasq-base pigz runc ubuntu-fan
Suggested packages:
  ifupdown aufs-tools cgroupfs-mount | cgroup-lite debootstrap docker-buildx docker-compose-v2 docker-doc rinse zfs-
The following NEW packages will be installed:
  bridge-utils containerd dns-root-data dnsmasq-base docker.io pigz runc ubuntu-fan
0 upgraded, 8 newly installed, 0 to remove and 47 not upgraded.
Need to get 76.8 MB of archives.
After this operation, 289 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 pigz amd64 2.8-1 [65.6 kB]
Get:2 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 bridge-utils amd64 1.7.1-1ubuntu2 [33.9 kB]
Get:3 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 runc amd64 1.1.12-0ubuntu3 [8599 kB]
Get:4 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 containerd amd64 1.7.12-0ubuntu4 [38.6 MB]
Get:5 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 dns-root-data all 2023112702~willsync1 [4450
Get:6 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 dnsmasq-base amd64 2.90-2build2 [375 kB]
Get:7 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 docker.io amd64 24.0.7-0ubuntu4 [29.1 MB]
Get:8 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 ubuntu-fan all 0.12.16 [35.2 kB]
Fetched 76.8 MB in 1s (56.2 MB/s)
Preconfiguring packages ...
Selecting previously unselected package pigz.
(Reading database ... 67739 files and directories currently installed.)
```

sudo docker version

```
ubuntu@ip-172-31-32-39:~$ sudo docker version
Client:
 Version:           24.0.7
 API version:       1.43
 Go version:        go1.22.2
 Git commit:        24.0.7-0ubuntu4
 Built:             Wed Apr 17 20:08:25 2024
 OS/Arch:           linux/amd64
 Context:           default

Server:
 Engine:
  Version:          24.0.7
  API version:      1.43 (minimum version 1.12)
  Go version:       go1.22.2
  Git commit:       24.0.7-0ubuntu4
  Built:            Wed Apr 17 20:08:25 2024
  OS/Arch:          linux/amd64
  Experimental:     false
 containerd:
  Version:          1.7.12
  GitCommit:
 runc:
  Version:          1.1.12-0ubuntu3
  GitCommit:
 docker-init:
```

sudo usermod -aG docker ubuntu

```
  GitCommit:
ubuntu@ip-172-31-32-39:~$ sudo usermod -aG docker ubuntu
ubuntu@ip-172-31-32-39:~$
```

sudo systemctl status docker

```
ubuntu@ip-172-31-32-39:~$ sudo systemctl status docker
● docker.service - Docker Application Container Engine
     Loaded: loaded (/usr/lib/systemd/system/docker.service; enabled; preset: enabled)
     Active: active (running) since Thu 2024-08-08 06:50:22 UTC; 28min ago
TriggeredBy: ● docker.socket
       Docs: https://docs.docker.com
   Main PID: 2556 (dockerd)
      Tasks: 8
     Memory: 32.6M (peak: 33.2M)
        CPU: 442ms
     CGroup: /system.slice/docker.service
             └─2556 /usr/bin/dockerd -H fd:// --containerd=/run/containerd/containerd.soc
```

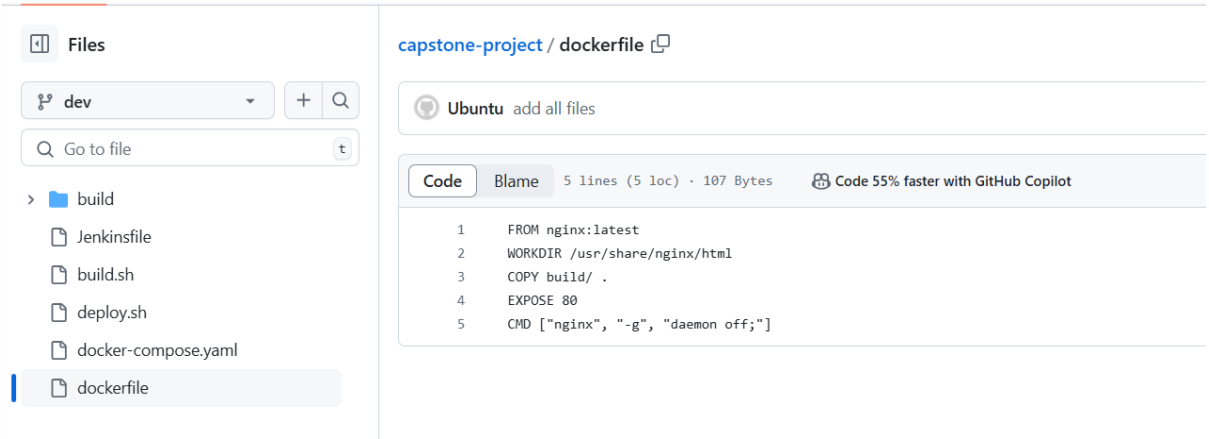
sudo systemctl start docker

```
ubuntu@ip-172-31-46-99:~$ sudo usermod -aG docker ubuntu
ubuntu@ip-172-31-46-99:~$ newgrp docker
ubuntu@ip-172-31-46-99:~$ sudo systemctl start docker
ubuntu@ip-172-31-46-99:~$ sudo systemctl enable docker
ubuntu@ip-172-31-46-99:~$ sudo docker run hello-world
Unable to find image 'hello-world:latest' locally
latest: Pulling from library/hello-world
c1ec31eb5944: Pull complete
Digest: sha256:1408fec50309afee38f3535383f5b09419e6dc0925bc69891e79d84cc4cdcec6
Status: Downloaded newer image for hello-world:latest

Hello from Docker!
This message shows that your installation appears to be working correctly.

To generate this message, Docker took the following steps:
 1. The Docker client contacted the Docker daemon.
 2. The Docker daemon pulled the "hello-world" image from the Docker Hub.
    (amd64)
 3. The Docker daemon created a new container from that image which runs the
    executable that produces the output you are currently reading.
 4. The Docker daemon streamed that output to the Docker client, which sent it
    to your terminal.
```

```
To try something more ambitious, you can run an Ubuntu container with:
 $ docker run -it ubuntu bash

Share images, automate workflows, and more with a free Docker ID:
 https://hub.docker.com/

For more examples and ideas, visit:
 https://docs.docker.com/get-started/

ubuntu@ip-172-31-46-99:~$ docker images
REPOSITORY    TAG       IMAGE ID       CREATED         SIZE
hello-world   latest    d2c94e258dcb   15 months ago   13.3kB
```

docker file:

vi dockerfile



Convert docker file into docker image:

docker build -t nginximage .

```
ubuntu@ip-172-31-46-99:~$ vi dockerfile
ubuntu@ip-172-31-46-99:~$ cd devops-build/
ubuntu@ip-172-31-46-99:~/devops-build$ vi dockerfile
ubuntu@ip-172-31-46-99:~/devops-build$ docker build -t nginximage .
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  3.415MB
Step 1/5 : FROM nginx:latest
 ---> a72860cb95fd
Step 2/5 : WORKDIR /usr/share/nginx/html
 ---> Using cache
 ---> 834607514a93
Step 3/5 : COPY build/ .
 ---> 9a869321475c
Step 4/5 : EXPOSE 80
 ---> Running in 2db9e8a75aea
Removing intermediate container 2db9e8a75aea
 ---> e144c57ce161
Step 5/5 : CMD ["nginx", "-g", "daemon off;"]
 ---> Running in 60c950b6a23f
Removing intermediate container 60c950b6a23f
 ---> 6ba82f9c1767
Successfully built 6ba82f9c1767
Successfully tagged nginximage:latest
ubuntu@ip-172-31-46-99:~/devops-build$ docker images
```

docker images

```
ubuntu@ip-172-31-46-99:~/devops-build$ docker images
REPOSITORY    TAG             IMAGE ID       CREATED          SIZE
nginximage    latest          6ba82f9c1767   25 seconds ago   190MB
nodeimage     latest          d44d4a7a0b69   27 minutes ago   188MB
<none>        <none>          ae52f8af4119   27 minutes ago   81.1MB
nginx         latest          a72860cb95fd   6 weeks ago      188MB
hello-world   latest          d2c94e258dcb   15 months ago    13.3kB
node          12.2.0-alpine   f391dabf9dce   5 years ago      77.7MB
```

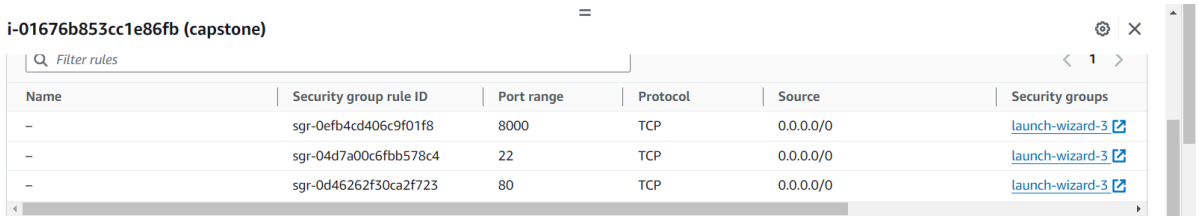
docker run -d --name mynignxcontainer -p 80:80 nginximage

```
ubuntu@ip-172-31-46-99:~/devops-build$ docker run -d --name mynginxcointainer -p 80:80 nginximage
1c82a7a8e8f05bcd8fce44d66e1bdae6fcd163163fe1cad573c78c81a4adb25f
```

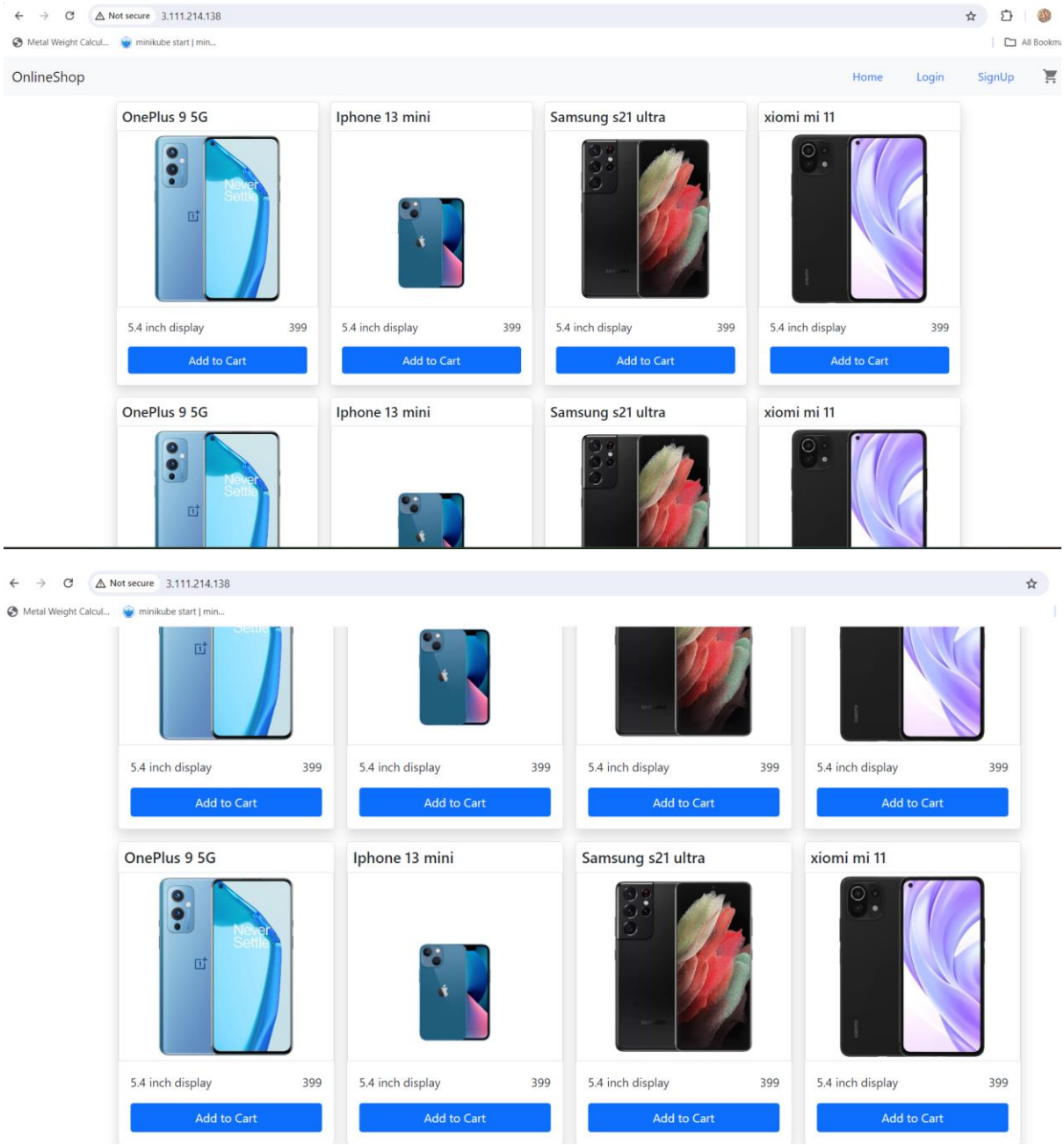
docker ps

```
ubuntu@ip-172-31-46-99:~/devops-build$ docker ps
CONTAINER ID   IMAGE         COMMAND                  CREATED          STATUS          PORTS                                   NAMES
1c82a7a8e8f0   nginximage    "/docker-entrypoint.…"   5 seconds ago    Up 3 seconds    0.0.0.0:80->80/tcp, :::80->80/tcp       mynginxcointainer
ae71713569e8   nodeimage     "/docker-entrypoint.…"   25 minutes ago   Up 25 minutes   0.0.0.0:8000->80/tcp, :::8000->80/tcp   nginxcointainer
```

Open the port no :80 in ec2. Copy and paste the ip address



Output page of given application:



3. **Docker compose installation:**

sudo apt update

sudo curl -L "https://github.com/docker/compose/releases/download/1.29.2/docker-compose-$(uname -s)-$(uname -m)" -o /usr/local/bin/docker-compose

sudo chmod +x /usr/local/bin/docker-compose

docker-compose --version

sudo apt update [update ubuntu machine]

```
ubuntu@ip-172-31-46-99:~$ sudo apt update
Hit:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy InRelease
Get:2 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates InRelease [128 kB]
Hit:3 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports InRelease
Get:4 http://security.ubuntu.com/ubuntu jammy-security InRelease [129 kB]
Get:5 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 Packages [1930 kB]
Get:6 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main Translation-en [341 kB]
Get:7 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 c-n-f Metadata [17.8 kB]
Get:8 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 Packages [2301 kB]
Get:9 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/restricted Translation-en [396 kB]
Get:10 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 Packages [1110 kB]
Get:11 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 c-n-f Metadata [25.9 kB]
Get:12 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 Packages [43.3 kB]
Get:13 http://security.ubuntu.com/ubuntu jammy-security/main amd64 Packages [1712 kB]
Get:14 http://security.ubuntu.com/ubuntu jammy-security/main Translation-en [283 kB]
Get:15 http://security.ubuntu.com/ubuntu jammy-security/main amd64 c-n-f Metadata [13.1 kB]
Get:16 http://security.ubuntu.com/ubuntu jammy-security/restricted amd64 Packages [2226 kB]
Get:17 http://security.ubuntu.com/ubuntu jammy-security/restricted Translation-en [383 kB]
Fetched 11.0 MB in 3s (3177 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
29 packages can be upgraded. Run 'apt list --upgradable' to see them.
```

sudo curl -L "https://github.com/docker/compose/releases/download/1.29.2/docker-compose-$(uname -s)-$(uname -m)" -o /usr/local/bin/docker-compose

```
ubuntu@ip-172-31-46-99:~$ sudo curl -L "https://github.com/docker/compose/releases/download/1.29.2/docker-compose-$(uname -s)-$(uname -m)" -o /usr/local/bin/docke
r-compose
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
  0     0    0     0    0     0      0      0 --:--:-- --:--:-- --:--:--     0
100 12.1M  100 12.1M    0     0  8033k      0  0:00:01  0:00:01 --:--:-- 12.3M
```

sudo chmod +x /usr/local/bin/docker-compose

```
ubuntu@ip-172-31-46-99:~$ sudo chmod +x /usr/local/bin/docker-compose
ubuntu@ip-172-31-46-99:~$ docker-compose --version
docker-compose version 1.29.2, build 5becea4c
```

docker-compose --version

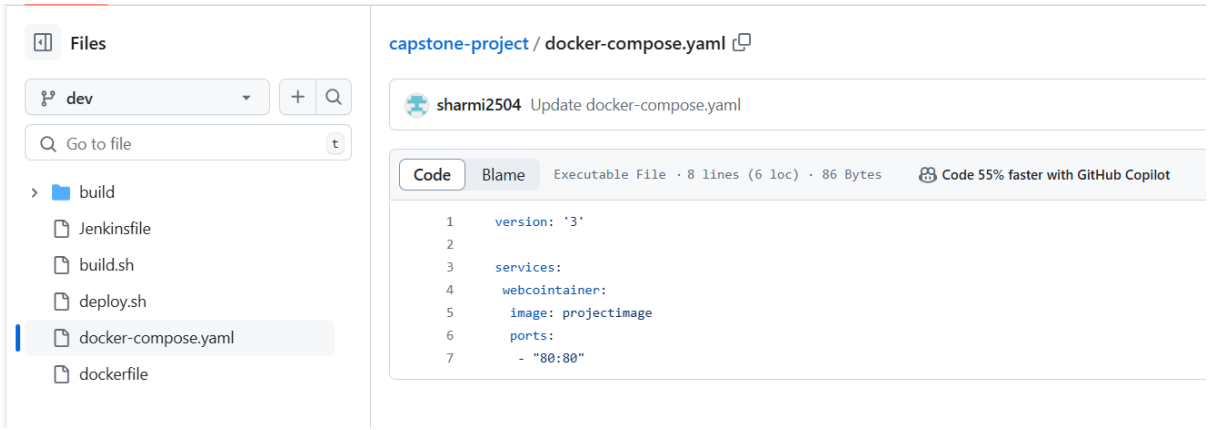
Docker compose file for node js:

get into folder devops-build. Then write this

```
ubuntu@ip-172-31-46-99:~$ cd devops-build/
ubuntu@ip-172-31-46-99:~/devops-build$ vi docker-compose.yaml
```

vi docker-compose.yaml

```
version: '3'

services:
 webcointainer:
  image: nginximage
  ports:
   - "80:80"
```



Give permission for this file:

Chmod 777 docker-compose.yaml [give permission for the docker-compose.yaml file]

```
ubuntu@ip-172-31-46-99:~/devops-build$ vi docker-compose.yaml
ubuntu@ip-172-31-46-99:~/devops-build$ chmod 777 docker-compose.yaml
```

Execute the docker-compose.yaml :

docker-compose up -d

```
ubuntu@ip-172-31-46-99:~/devops-build$ docker-compose up -d
Starting devops-build_webcointainer_1 ... done
```

docker ps

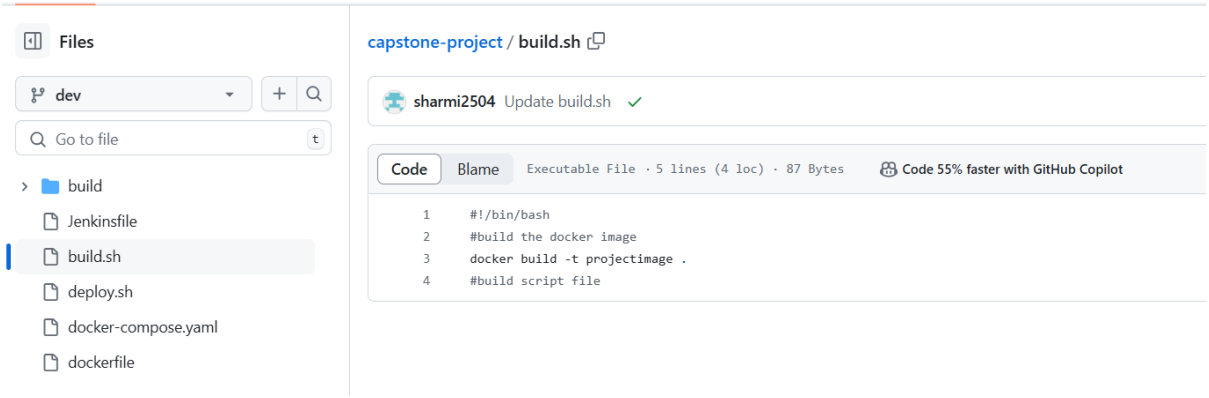
```
ubuntu@ip-172-31-46-99:~/devops-build$ docker ps
CONTAINER ID   IMAGE          COMMAND                  CREATED          STATUS          PORTS                                   NAMES
4e1ec10be231   nginximage     "/docker-entrypoint.…"   10 minutes ago   Up 10 seconds   0.0.0.0:80->80/tcp, :::80->80/tcp       devops-build_webcointainer_1
```

Bash scripting:

- **build.sh**
- **deploy.sh**

Build.sh file:

```
ubuntu@ip-172-31-46-99:~/devops-build$ vi build.sh
```



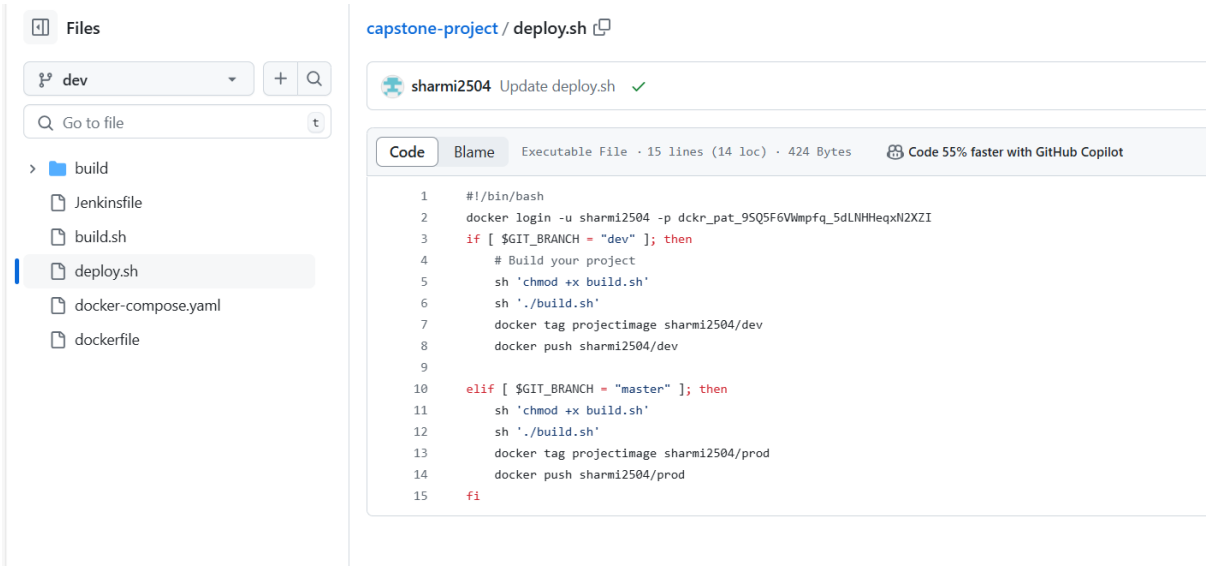
Your docker login details [create the new docker hub account]

```
ubuntu@ip-172-31-46-99:~/devops-build$ docker login
Log in with your Docker ID or email address to push and pull images from Docker Hub. If you don't have a Docker ID, head over to https://hub.docker.com/ to create
 one.
You can log in with your password or a Personal Access Token (PAT). Using a limited-scope PAT grants better security and is required for organizations using SSO.
Learn more at https://docs.docker.com/go/access-tokens/

Username: sharmi2504
Password:
WARNING! Your password will be stored unencrypted in /home/ubuntu/.docker/config.json.
Configure a credential helper to remove this warning. See
https://docs.docker.com/engine/reference/commandline/login/#credentials-store

Login Succeeded
ubuntu@ip-172-31-46-99:~/devops-build$
```

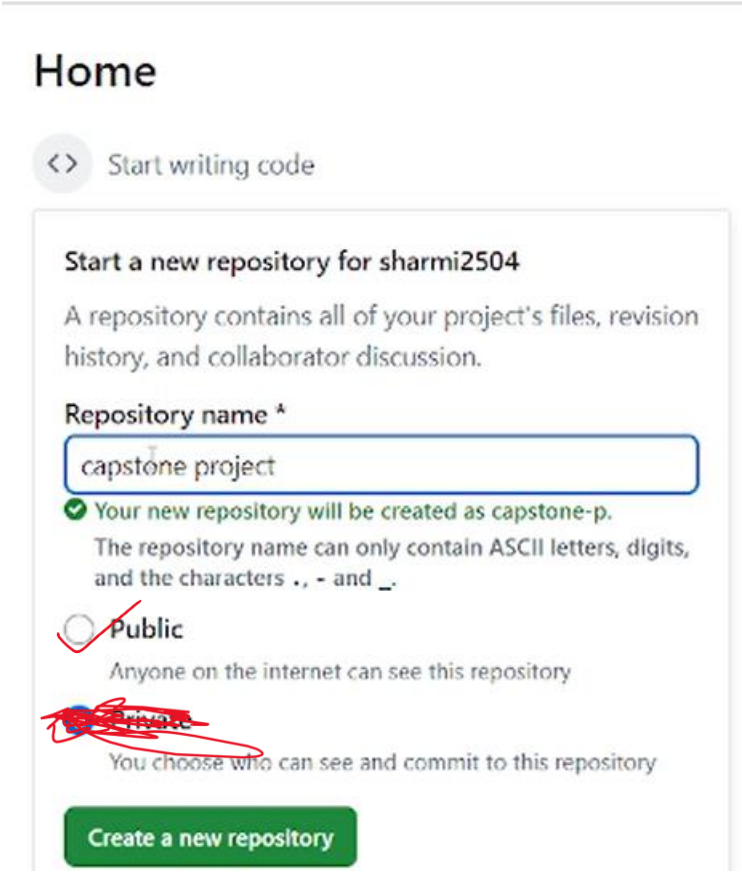
deploy.sh:

deploy.sh file:

```
ubuntu@ip-172-31-46-99:~/devops-build$ vi deploy.sh
```



Create new repo in git:



Give public repo

```
ubuntu@ip-172-31-46-99:~/devops-build$ cd
```

After create repo. you get this https link. copy and paste it in clone command

```
ubuntu@ip-172-31-46-99:~$ git clone https://github.com/sharmi2504/capstone-project.git
Cloning into 'capstone-project'...
warning: You appear to have cloned an empty repository.
```

```
ubuntu@ip-172-31-46-99:~$ git clone https://github.com/sharmi2504/capstone-project.git
Cloning into 'capstone-project'...
warning: You appear to have cloned an empty repository.
ubuntu@ip-172-31-46-99:~$ ls
capstone-project  devops-build  dockerfile
ubuntu@ip-172-31-46-99:~$ cd devops-build/
ubuntu@ip-172-31-46-99:~/devops-build$
```

Here capstone-project directory created repo in GitHub. get into that dir . them move that all files from devops-build to capstone-project dir . in our own repo we push all our files.

```
ubuntu@ip-172-31-46-99:~$ cd devops-build/
ubuntu@ip-172-31-46-99:~/devops-build$ ls
build  build.sh  deploy.sh  docker-compose.yaml  dockerfile
ubuntu@ip-172-31-46-99:~/devops-build$ mv * /home/ubuntu/capstone-project
ubuntu@ip-172-31-46-99:~/devops-build$ cd ..
ubuntu@ip-172-31-46-99:~$ cd capstone-project/
ubuntu@ip-172-31-46-99:~/capstone-project$ ls
build  build.sh  deploy.sh  docker-compose.yaml  dockerfile
ubuntu@ip-172-31-46-99:~/capstone-project$
```

```
create mode 100644 build/favicon.ico
create mode 100644 build/index.html
create mode 100644 build/logo192.png
create mode 100644 build/logo512.png
create mode 100644 build/manifest.json
create mode 100644 build/robots.txt
create mode 100644 build/static/css/main.cf5c13c5.css
create mode 100644 build/static/css/main.cf5c13c5.css.map
create mode 100644 build/static/js/787.2f5360e2.chunk.js
create mode 100644 build/static/js/787.2f5360e2.chunk.js.map
create mode 100644 build/static/js/main.f1c48542.js
create mode 100644 build/static/js/main.f1c48542.js.LICENSE.txt
create mode 100644 build/static/js/main.f1c48542.js.map
create mode 100755 deploy.sh
create mode 100755 docker-compose.yaml
create mode 100644 dockerfile
```

git add . [add all files in our repo]

git commit -m "add all files"

```
ubuntu@ip-172-31-46-99:~/capstone-project$ git add .
ubuntu@ip-172-31-46-99:~/capstone-project$ git commit -m "add all files"
[main (root-commit) 13ef6f8] add all files
 Committer: Ubuntu <ubuntu@ip-172-31-46-99.ap-south-1.compute.internal>
Your name and email address were configured automatically based
on your username and hostname. Please check that they are accurate.
You can suppress this message by setting them explicitly. Run the
following command and follow the instructions in your editor to edit
your configuration file:

    git config --global --edit

After doing this, you may fix the identity used for this commit with:

    git commit --amend --reset-author

 19 files changed, 198 insertions(+)
 create mode 100755 build.sh
 create mode 100644 build/_redirects
 create mode 100644 build/asset-manifest.json
 create mode 100644 build/favicon.ico
 create mode 100644 build/index.html
 create mode 100644 build/logo192.png
 create mode 100644 build/logo512.png
 create mode 100644 build/manifest.json
 create mode 100644 build/robots.txt
 create mode 100644 build/static/css/main.cf5c13c5.css
```

All files move in that repo [capstone-project]. then created dev branch. Inside dev branch we add all files.

Create dev branch in git:

git checkout -b dev **[** Create dev branch**]**

```
ubuntu@ip-172-31-46-99:~/capstone-project$ git checkout -b dev
Switched to a new branch 'dev'
```

```
ubuntu@ip-172-31-46-99:~/capstone-project$ ls
build  build.sh  deploy.sh  docker-compose.yaml  dockerfile
```

git add . [add all files in our repo]

git commit -m "add all files"

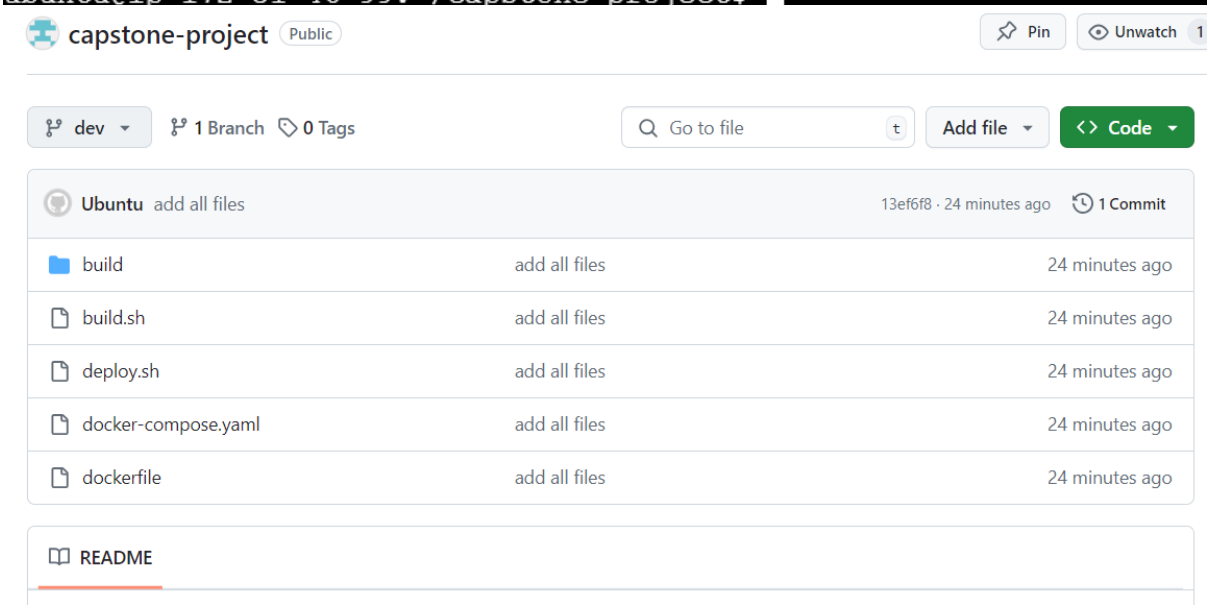
```
ubuntu@ip-172-31-46-99:~/capstone-project$ git add .
ubuntu@ip-172-31-46-99:~/capstone-project$ git commit -m "add all files"
On branch dev
nothing to commit, working tree clean
```

git push -u origin dev **[push all files in our repo]**

```
ubuntu@ip-172-31-46-99:~/capstone-project$ git push -u origin dev
Username for 'https://github.com': sharmi2504
Password for 'https://sharmi2504@github.com':
Enumerating objects: 25, done.
Counting objects: 100% (25/25), done.
Compressing objects: 100% (24/24), done.
Writing objects: 100% (25/25), 720.19 KiB | 4.56 MiB/s, done.
Total 25 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/sharmi2504/capstone-project.git
 * [new branch]      dev -> dev
Branch 'dev' set up to track remote branch 'dev' from 'origin'.
ubuntu@ip-172-31-46-99:~/capstone-project$
```

Copy and paste the token in password

```
ubuntu@ip-172-31-46-99:~/capstone-project$ git push -u origin dev
Username for 'https://github.com': sharmi2504
Password for 'https://sharmi2504@github.com':
Enumerating objects: 25, done.
Counting objects: 100% (25/25), done.
Compressing objects: 100% (24/24), done.
Writing objects: 100% (25/25), 720.19 KiB | 4.56 MiB/s, done.
Total 25 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/sharmi2504/capstone-project.git
 * [new branch]      dev -> dev
Branch 'dev' set up to track remote branch 'dev' from 'origin'.
ubuntu@ip-172-31-46-99:~/capstone-project$
```



All files pushed to our repo.

4. Jenkins installation:

sudo apt-get update

```
ubuntu@ip-172-31-46-99:~$ sudo apt-get update
Hit:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy InRelease
Get:2 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates InRelease [128 kB]
Hit:3 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports InRelease
Get:4 http://security.ubuntu.com/ubuntu jammy-security InRelease [129 kB]
Get:5 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 Packages [1941 kB]
Get:6 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main Translation-en [343 kB]
Get:7 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 c-n-f Metadata [17.7 kB]
Get:8 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 Packages [2314 kB]
Get:9 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/restricted Translation-en [397 kB]
Get:10 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 Packages [1110 kB]
Get:11 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 c-n-f Metadata [25.9 kB]
Get:12 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 Packages [43.3 kB]
Fetched 6448 kB in 2s (3193 kB/s)
Reading package lists... Done
```

sudo apt-get install -y openjdk-11-jdk

```
ubuntu@ip-172-31-46-99:~$ sudo apt-get install -y openjdk-11-jdk
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  alsa-topology-conf alsa-ucm-conf at-spi2-core ca-certificates-java dconf-gsettings-backend dconf-service fontconfig-config fonts-dejavu-core
  fonts-dejavu-extra gsettings-desktop-schemas java-common libasound2 libasound2-data libatk-bridge2.0-0 libatk-wrapper-java libatk-wrapper-java-jni libatk1.0-0
  libatk1.0-data libatspi2.0-0 libavahi-client3 libavahi-common-data libavahi-common3 libcups2 libdconf1 libdrm-amdgpu1 libdrm-intel1 libdrm-nouveau2
  libdrm-radeon1 libfontconfig1 libfontenc1 libgif7 libgl1 libgl1-amber-dri libgl1-mesa-dri libglapi-mesa libglvnd0 libglx-mesa0 libglx0 libgraphite2-3
  libharfbuzz0b libice-dev libice6 libjpeg-turbo8 libjpeg8 liblcms2-2 libllvm15 libpciaccess0 libpcsclite1 libpthread-stubs0-dev libsensors-config libsensors5
  libsm-dev libsm6 libx11-dev libx11-xcb1 libxau-dev libxaw7 libxcb-dri2-0 libxcb-dri3-0 libxcb-glx0 libxcb-present0 libxcb-randr0 libxcb-shape0 libxcb-shm0
  libxcb-sync1 libxcb-xfixes0 libxcb1-dev libxcomposite1 libxdmcp-dev libxfixes3 libxft2 libxi6 libxinerama1 libxkbfile1 libxmu6 libxpm4 libxrandr2 libxrender1
  libxshmfence1 libxt-dev libxt6 libxtst6 libxv1 libxxf86dga1 libxxf86vm1 openjdk-11-jdk-headless openjdk-11-jre openjdk-11-jre-headless session-migration
  x11-common x11-utils x11proto-dev xorg-sgml-doctools xtrans-dev
```

sudo wget -O /usr/share/keyrings/jenkins-keyring.asc \

https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key

```
ubuntu@ip-172-31-46-99:~$ sudo wget -O /usr/share/keyrings/jenkins-keyring.asc \
  https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key
--2024-08-10 06:37:02--  https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key
Resolving pkg.jenkins.io (pkg.jenkins.io)... 151.101.154.133, 2a04:4e42:24::645
Connecting to pkg.jenkins.io (pkg.jenkins.io)|151.101.154.133|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 3175 (3.1K) [application/pgp-keys]
Saving to: '/usr/share/keyrings/jenkins-keyring.asc'

/usr/share/keyrings/jenkins-keyring.asc  100%[=================================================

2024-08-10 06:37:02 (22.5 MB/s) - '/usr/share/keyrings/jenkins-keyring.asc' saved [3175/3175]
```

echo "deb [signed-by=/usr/share/keyrings/jenkins-keyring.asc]" \

https://pkg.jenkins.io/debian-stable binary/ | sudo tee \

/etc/apt/sources.list.d/jenkins.list > /dev/null

```
ubuntu@ip-172-31-46-99:~$ echo "deb [signed-by=/usr/share/keyrings/jenkins-keyring.asc]" \
  https://pkg.jenkins.io/debian-stable binary/ | sudo tee \
  /etc/apt/sources.list.d/jenkins.list > /dev/null
```

sudo apt-get update

```
ubuntu@ip-172-31-46-99:~$ sudo apt-get update
Hit:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy InRelease
Hit:2 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates InRelease
Hit:3 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports InRelease
Ign:4 https://pkg.jenkins.io/debian-stable binary/ InRelease
Get:5 https://pkg.jenkins.io/debian-stable binary/ Release [2044 B]
Get:6 https://pkg.jenkins.io/debian-stable binary/ Release.gpg [833 B]
Hit:7 http://security.ubuntu.com/ubuntu jammy-security InRelease
Get:8 https://pkg.jenkins.io/debian-stable binary/ Packages [27.6 kB]
Fetched 30.4 kB in 1s (36.9 kB/s)
Reading package lists... Done
```

sudo apt-get install Jenkins

```
ubuntu@ip-172-31-46-99:~$ sudo apt-get install jenkins
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  net-tools
The following NEW packages will be installed:
  jenkins net-tools
0 upgraded, 2 newly installed, 0 to remove and 13 not upgraded.
Need to get 91.4 MB of archives.
After this operation, 94.2 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 net-tools amd64
Get:2 https://pkg.jenkins.io/debian-stable binary/ jenkins 2.462.1 [91.2 MB]
Fetched 91.4 MB in 6s (16.4 MB/s)
Selecting previously unselected package net-tools.
(Reading database ... 98349 files and directories currently installed.)
Preparing to unpack .../net-tools_1.60+git20181103.0eebece-1ubuntu5_amd64.deb ...
Unpacking net-tools (1.60+git20181103.0eebece-1ubuntu5) ...
Selecting previously unselected package jenkins.
Preparing to unpack .../jenkins_2.462.1_all.deb ...
Unpacking jenkins (2.462.1) ...
```

```
Get:1 http://ap-south-1.ec                          jammy/main amd64 net-tools amd64 1.60+git20181103.0eebece-1ubuntu5 [204 kB]
Get:2 https://pkg.jenkins.io/debian-stable binary/ jenkins 2.462.1 [91.2 MB]
Fetched 91.4 MB in 6s (16.4 MB/s)
Selecting previously unselected package net-tools.
(Reading database ... 98349 files and directories currently installed.)
Preparing to unpack .../net-tools_1.60+git20181103.0eebece-1ubuntu5_amd64.deb ...
Unpacking net-tools (1.60+git20181103.0eebece-1ubuntu5) ...
Selecting previously unselected package jenkins.
Preparing to unpack .../jenkins_2.462.1_all.deb ...
Unpacking jenkins (2.462.1) ...
Setting up net-tools (1.60+git20181103.0eebece-1ubuntu5) ...
Setting up jenkins (2.462.1) ...
Created symlink /etc/systemd/system/multi-user.target.wants/jenkins.service → /lib/systemd/system/jenkins.service.
Processing triggers for man-db (2.10.2-1) ...
Scanning processes...
Scanning linux images...

Running kernel seems to be up-to-date.

No services need to be restarted.

No containers need to be restarted.

No user sessions are running outdated binaries.

No VM guests are running outdated hypervisor (qemu) binaries on this host.
```

sudo systemctl start Jenkins

```
ubuntu@ip-172-31-46-99:~$ sudo systemctl start jenkins
```

sudo systemctl status Jenkins

```
ubuntu@ip-172-31-46-99:~$ sudo systemctl status jenkins
● jenkins.service - Jenkins Continuous Integration Server
     Loaded: loaded (/lib/systemd/system/jenkins.service; enabled; vendor preset: enabled)
     Active: active (running) since Sat 2024-08-10 06:41:04 UTC; 4min 53s ago
   Main PID: 4951 (java)
      Tasks: 37 (limit: 1120)
     Memory: 284.6M
        CPU: 17.882s
     CGroup: /system.slice/jenkins.service
             └─4951 /usr/bin/java -Djava.awt.headless=true -jar /usr/share/java/jenkins.war -
```

```
ubuntu@ip-172-31-46-99:~/capstone-project$ vi jenkinsfile
```

Jenkins file:

Files

dev

Go to file t

- build
- Jenkinsfile
- build.sh
- deploy.sh
- docker-compose.yaml
- dockerfile

capstone-project / Jenkinsfile

sharmi2504 Merge branch 'dev' into master ✓

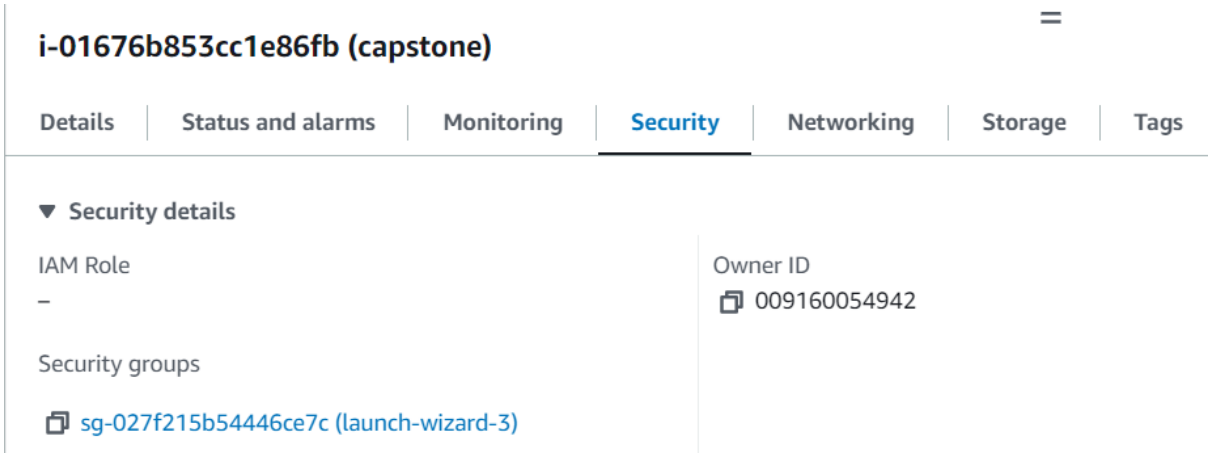
Code | Blame | 37 lines (33 loc) · 954 Bytes | Code 55% faster with GitHub Copilot

```
pipeline {
    agent any

    stages {
        stage('changing file permission') {
            steps {
                sh 'chmod +x build.sh'
                sh 'chmod +x deploy.sh'
            }
        }

        stage('Build') {
            steps {
                script {
                    // Build Docker image using build script file
                    sh './build.sh'
                }
            }
        }
```

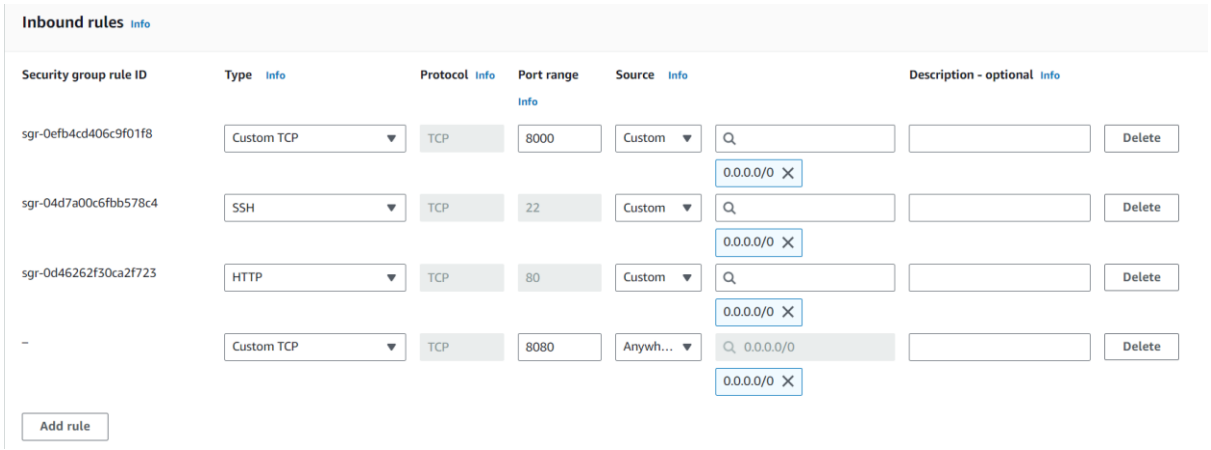
```
        stage('Login') {
            steps {
                withCredentials([usernamePassword(credentialsId: 'docker-password-id', passwordVariable: 'DOCKER_PASSWORD', usernameVariable: 'DOCKER_USERNAME')]) {
                    sh 'echo $DOCKER_PASSWORD | docker login -u $DOCKER_USERNAME --password-stdin'
                }
            }
        }
        stage('Deploy') {
            steps {
                script {
                    sh './deploy.sh'
                    }
                }
            }
        }
    }
```

Setup Jenkins dashboard:

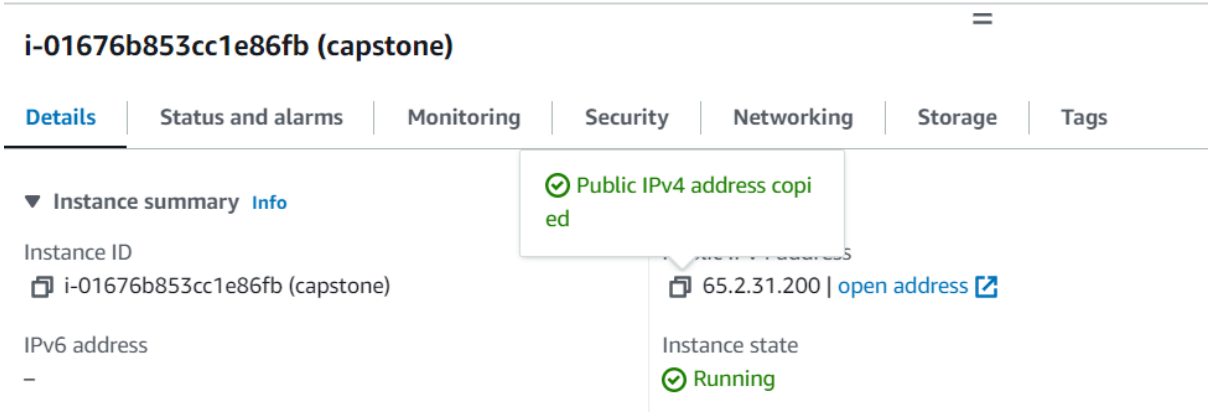
Add port no:8080 for access the Jenkins browser. Because it is a GUI tool



Click edit inbound rule

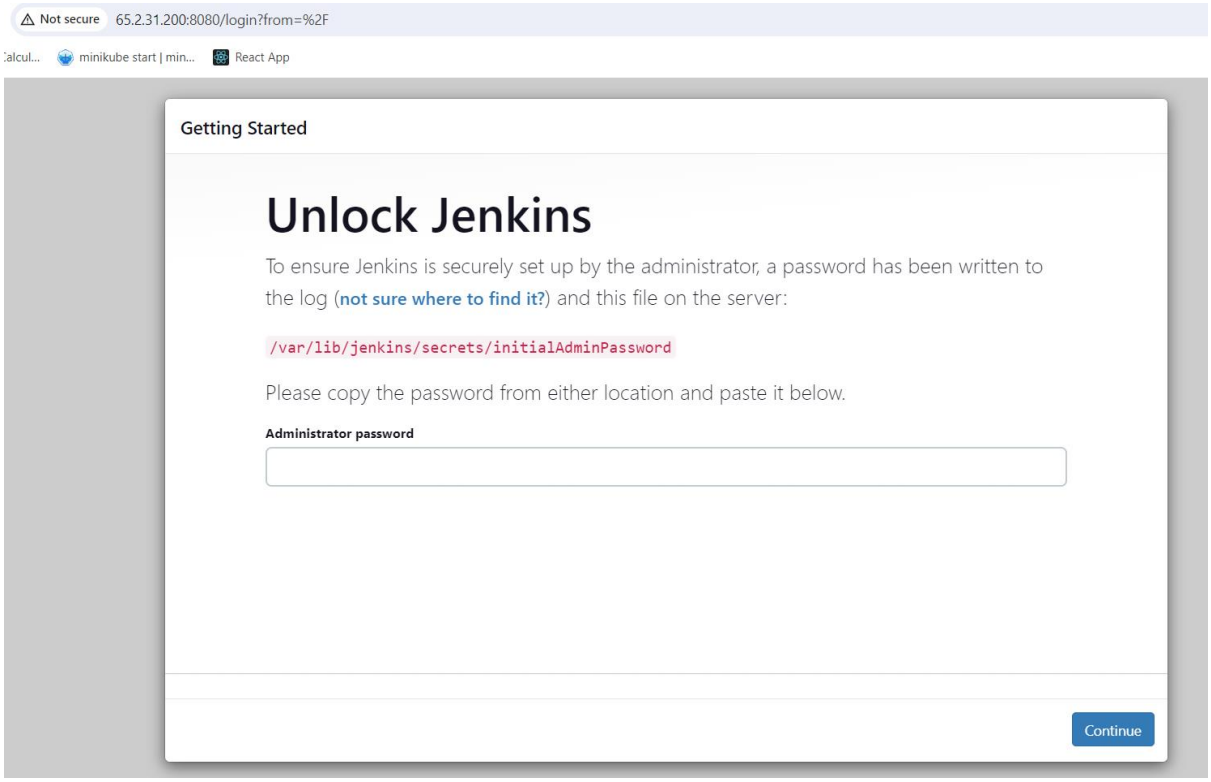


Click add rule → save rules. Copy ip address. Paste the address [65.2.31.200:8080]. give the Jenkins port number.



Copy ip address. Paste the address [65.2.31.200:8080]. give the Jenkins port number. Jenkins page opened.

Open Jenkins in browser:



Get above password

sudo cat /var/lib/jenkins/secrets/initialAdminPassword [get password for Jenkins]

```
ubuntu@ip-172-31-46-99:~$ sudo cat /var/lib/jenkins/secrets/initialAdminPassword
ef6201f275444ca8a144737522e1fa6d
ubuntu@ip-172-31-46-99:~$
```

ef6201f275444ca8a144737522e1fa6d [copy the password in above]

Getting Started

Unlock Jenkins

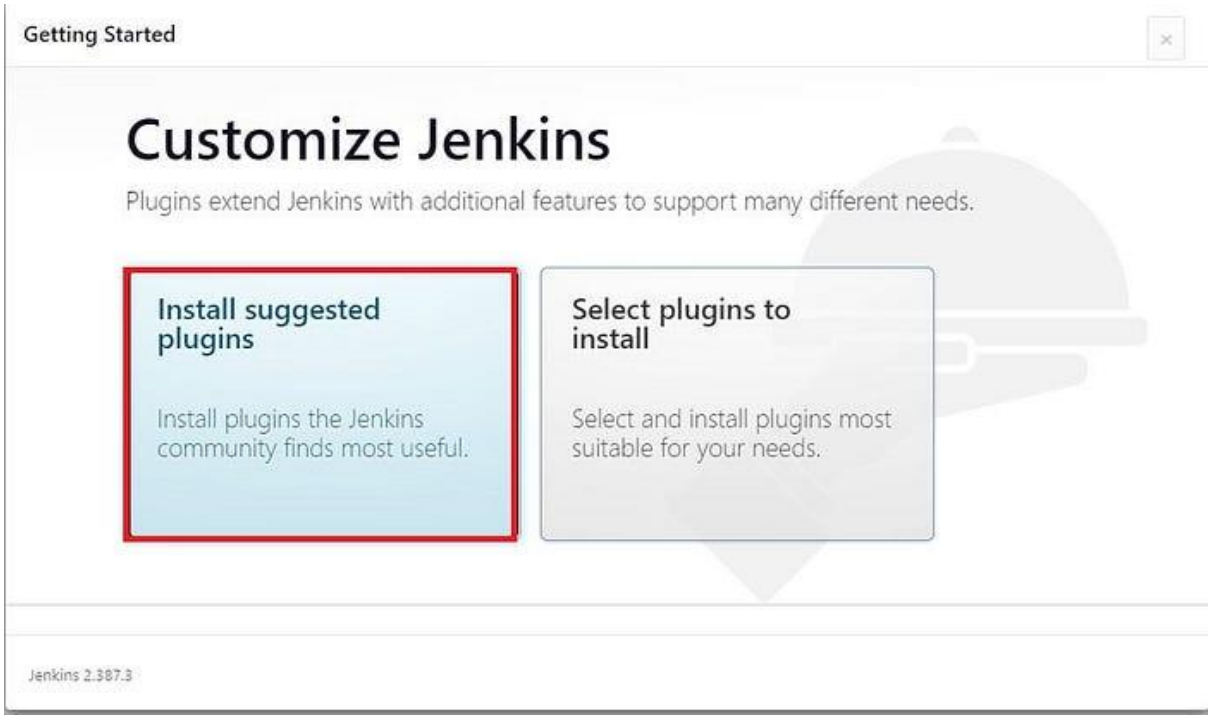
To ensure Jenkins is securely set up by the administrator, a password has been written to the log (**not sure where to find it?**) and this file on the server:

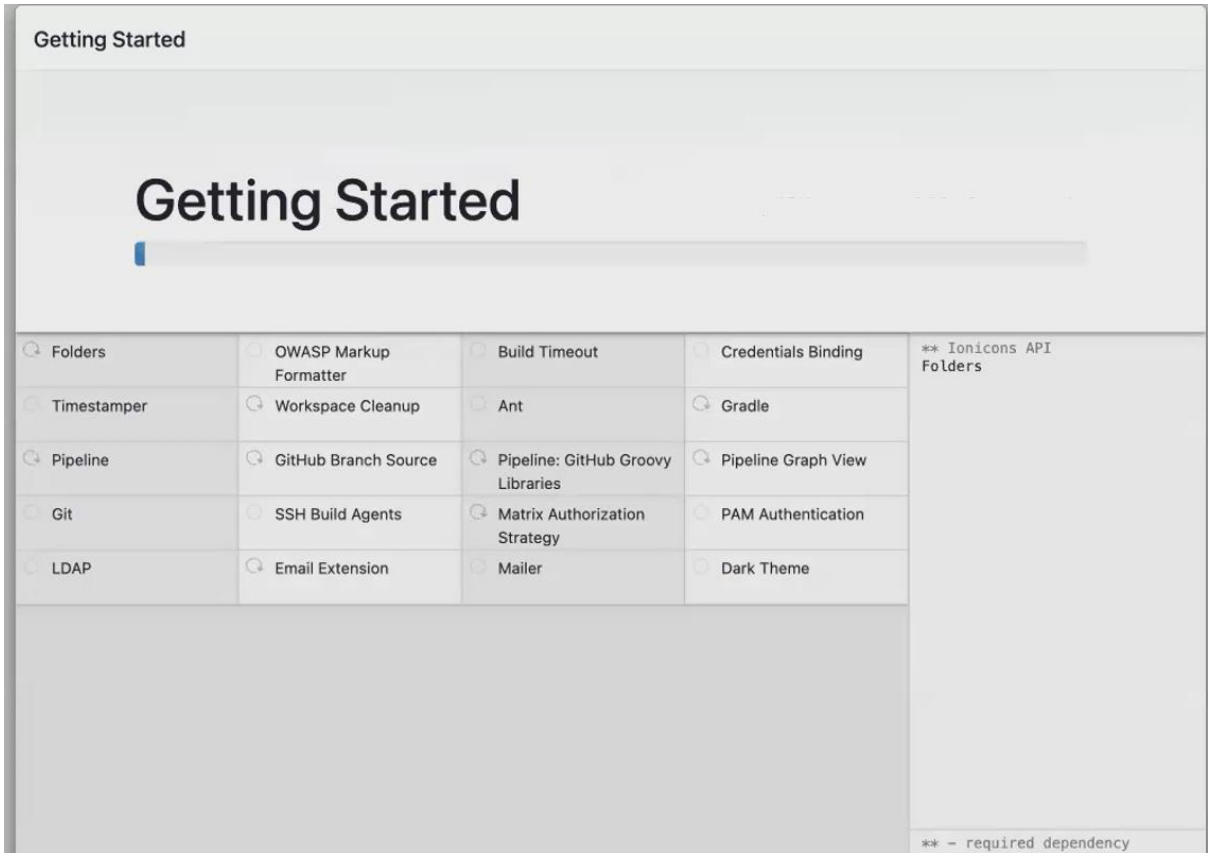
`/var/lib/jenkins/secrets/initialAdminPassword`

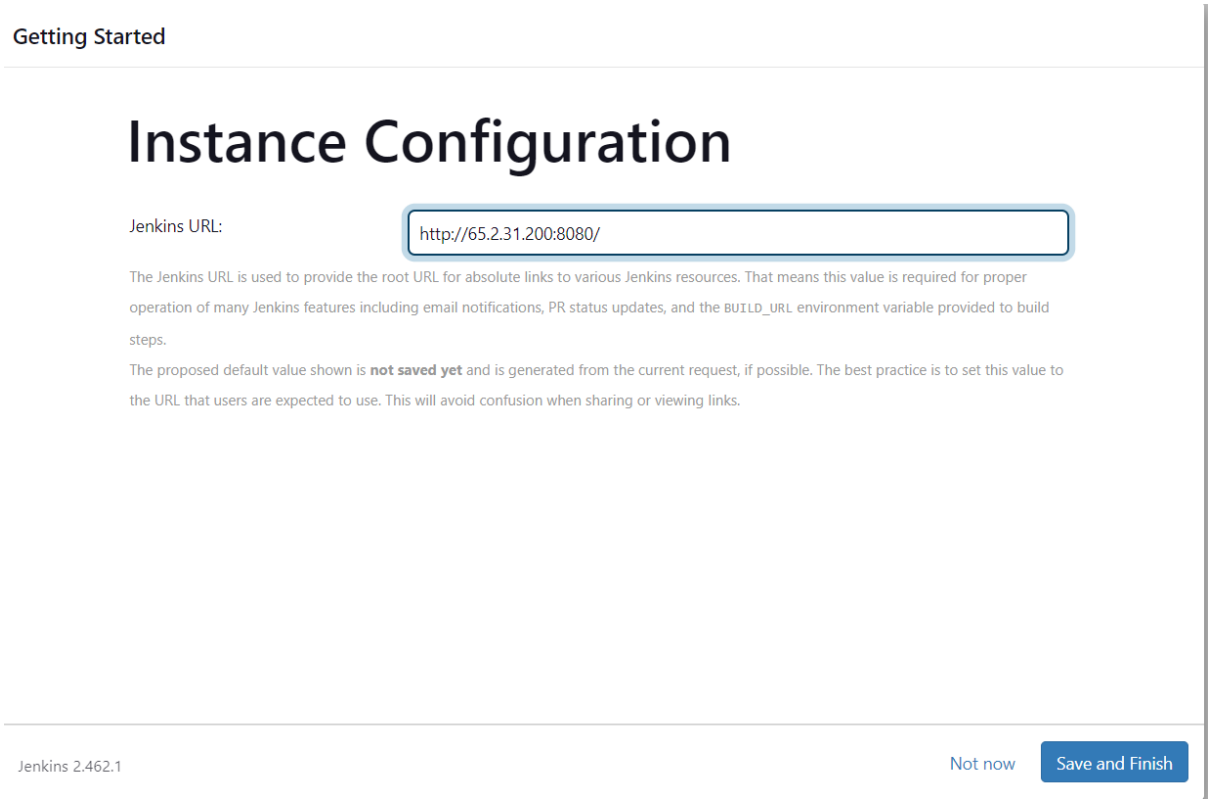
Please copy the password from either location and paste it below.

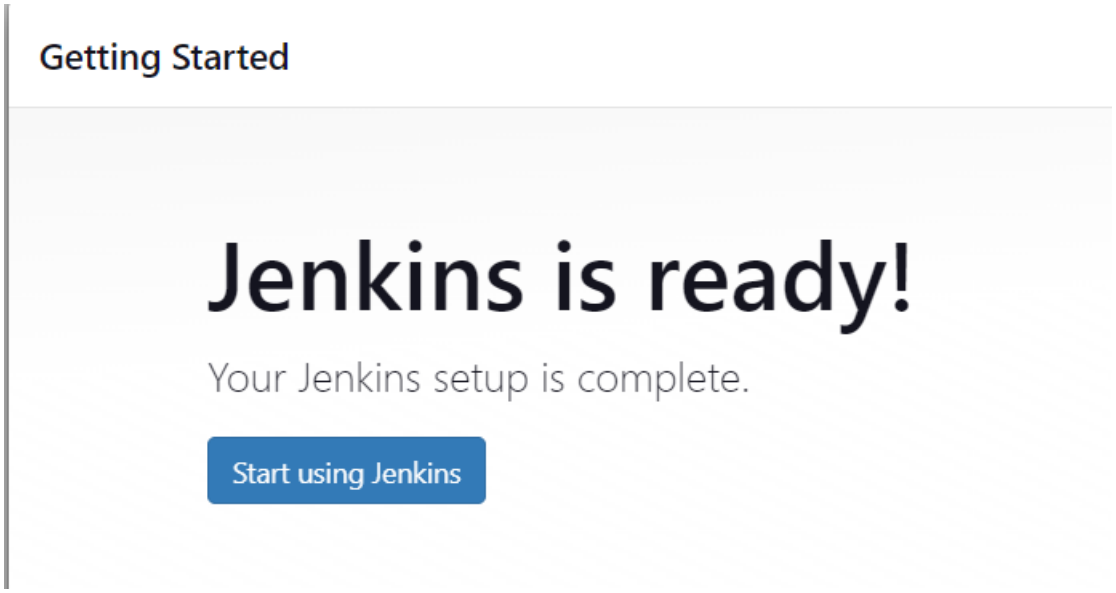
Administrator password

Continue

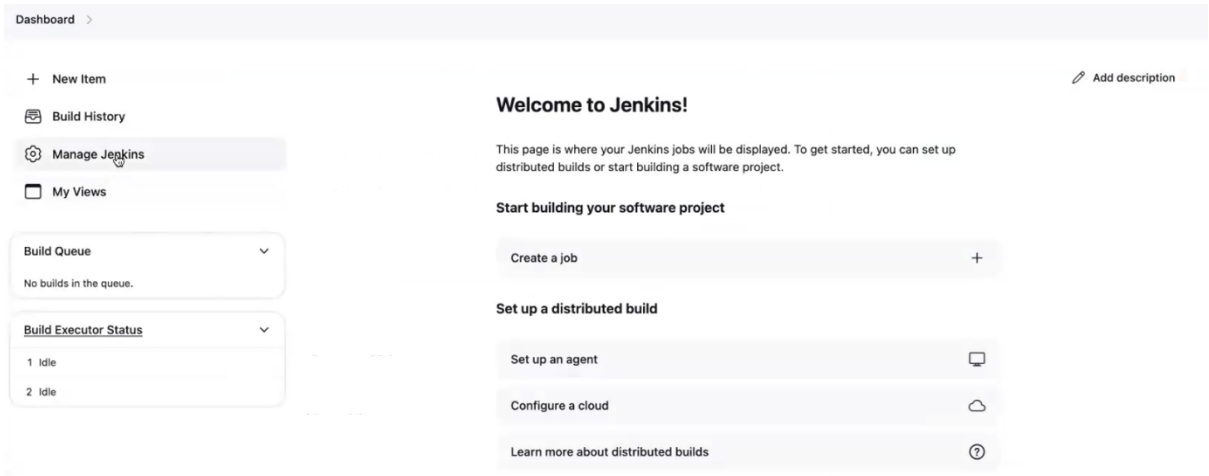


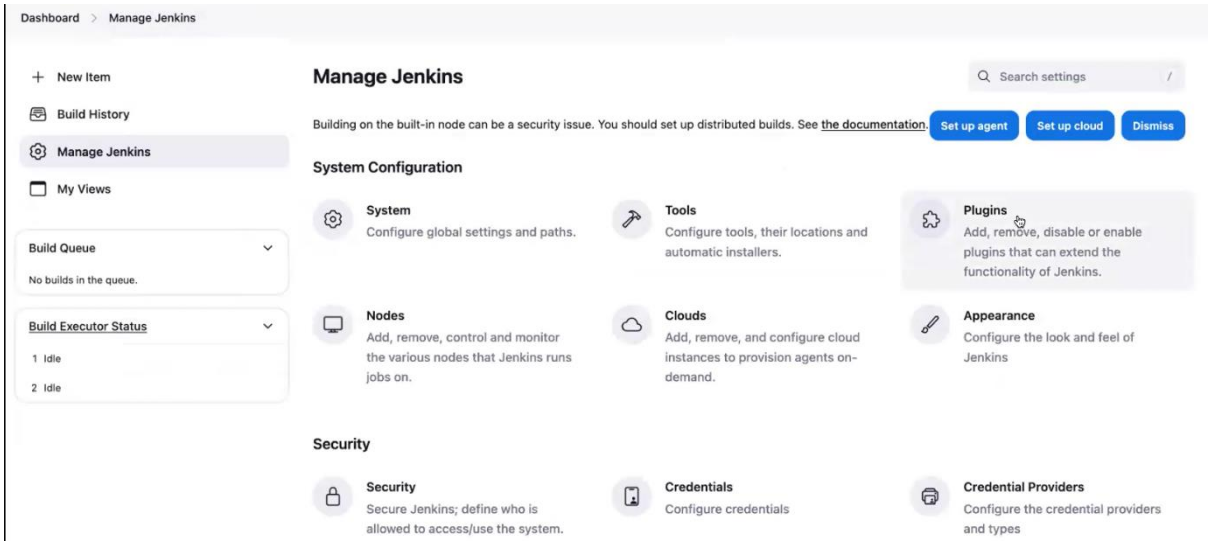

Getting Started
Getting Started
Folders
OWASP Markup Formatter
Build Timeout
Credentials Binding
Timestamper
Workspace Cleanup
Ant
Gradle
Pipeline
GitHub Branch Source
Pipeline: GitHub Groovy Libraries
Pipeline Graph View
Git
SSH Build Agents
Matrix Authorization Strategy
PAM Authentication
LDAP
Email Extension
Mailer
Dark Theme
** Ionicons API
Folders
** - required dependency

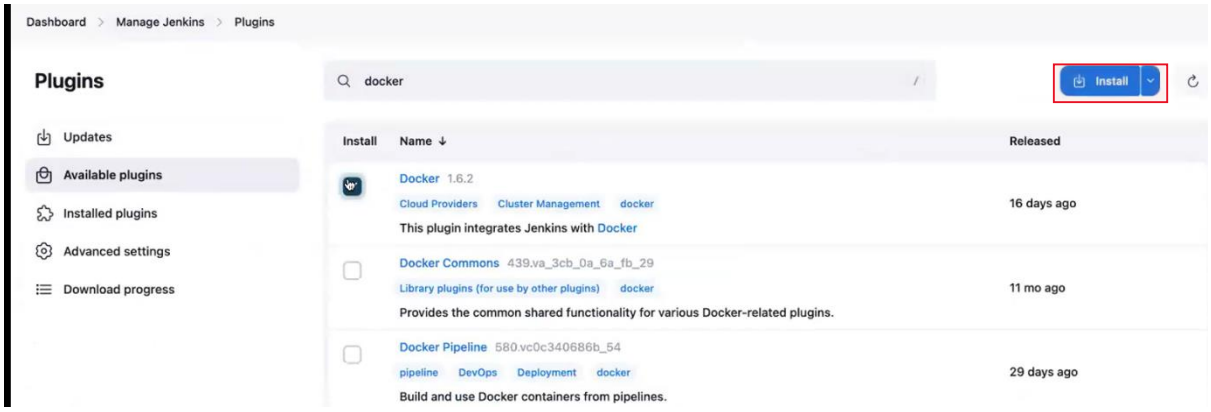

Getting Started
Instance Configuration
Jenkins URL:
http://65.2.31.200:8080/
The Jenkins URL is used to provide the root URL for absolute links to various Jenkins resources. That means this value is required for proper operation of many Jenkins features including email notifications, PR status updates, and the BUILD_URL environment variable provided to build steps.
The proposed default value shown is not saved yet and is generated from the current request, if possible. The best practice is to set this value to the URL that users are expected to use. This will avoid confusion when sharing or viewing links.
Jenkins 2.462.1
Not now
Save and Finish

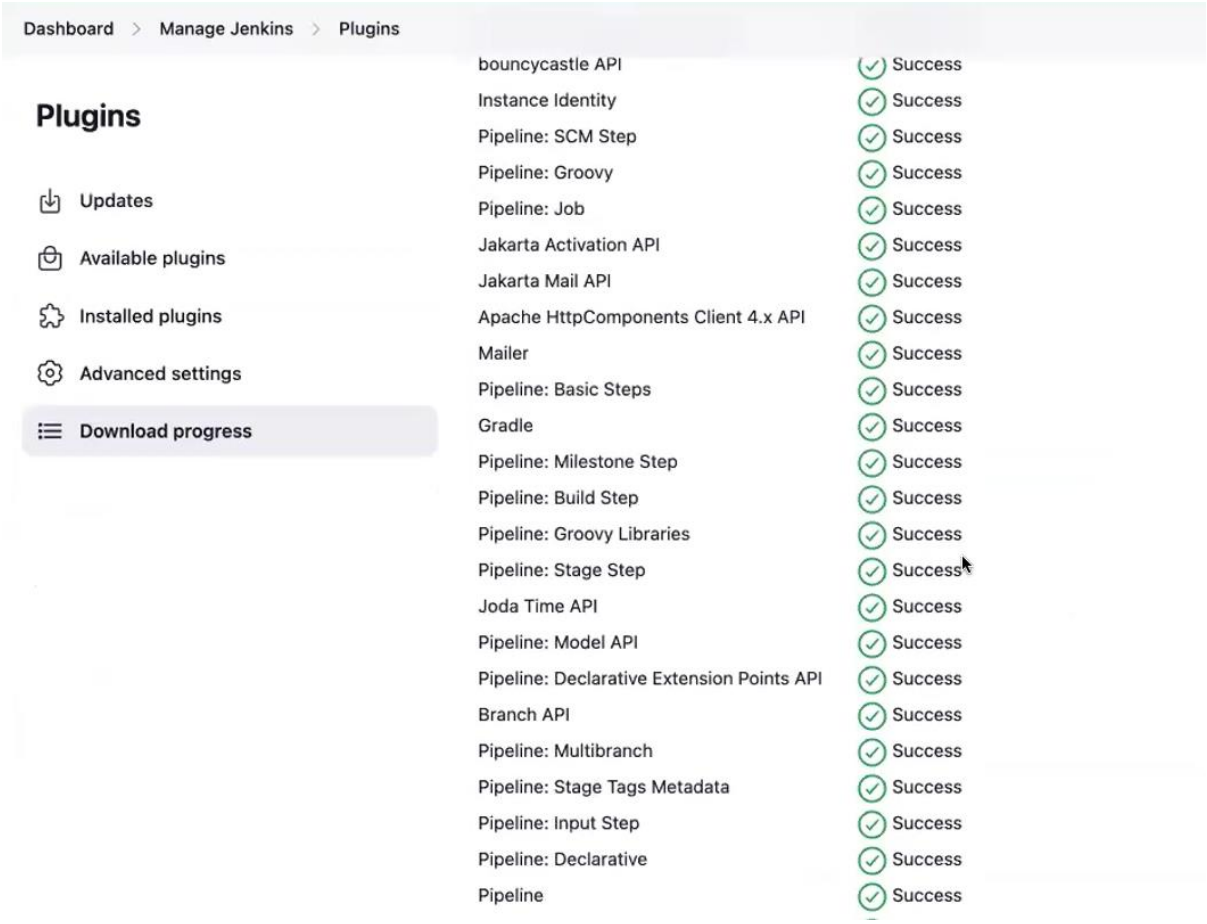


Before creating the job installed docker plugin in Jenkins and install docker in ec2 also.




Dashboard > Manage Jenkins
New Item
Build History
Manage Jenkins
My Views
Build Queue
No builds in the queue.
Build Executor Status
1 Idle
2 Idle
Manage Jenkins
Search settings
Building on the built-in node can be a security issue. You should set up distributed builds. See the documentation.
Set up agent
Set up cloud
Dismiss
System Configuration
System
Configure global settings and paths.
Tools
Configure tools, their locations and automatic installers.
Plugins
Add, remove, disable or enable plugins that can extend the functionality of Jenkins.
Nodes
Add, remove, control and monitor the various nodes that Jenkins runs jobs on.
Clouds
Add, remove, and configure cloud instances to provision agents on-demand.
Appearance
Configure the look and feel of Jenkins
Security
Security
Secure Jenkins; define who is allowed to access/use the system.
Credentials
Configure credentials
Credential Providers
Configure the credential providers and types


Dashboard > Manage Jenkins > Plugins
Plugins
docker
Install
Updates
Available plugins
Installed plugins
Advanced settings
Download progress
Install
Name
Released
Docker 1.6.2
Cloud Providers Cluster Management docker
This plugin integrates Jenkins with Docker
16 days ago
Docker Commons 439.va_3cb_0a_6a_fb_29
Library plugins (for use by other plugins) docker
Provides the common shared functionality for various Docker-related plugins.
11 mo ago
Docker Pipeline 580.vc0c340686b_54
pipeline DevOps Deployment docker
Build and use Docker containers from pipelines.
29 days ago



Give docker permission for Jenkins. then only we have to build the docker image.

```
ubuntu@ip-172-31-46-99:~$ docker --version
Docker version 24.0.7, build 24.0.7-0ubuntu2~22.04.1
ubuntu@ip-172-31-46-99:~$ sudo usermod -aG docker jenkins
ubuntu@ip-172-31-46-99:~$ sudo systemctl restart jenkins
ubuntu@ip-172-31-46-99:~$
```

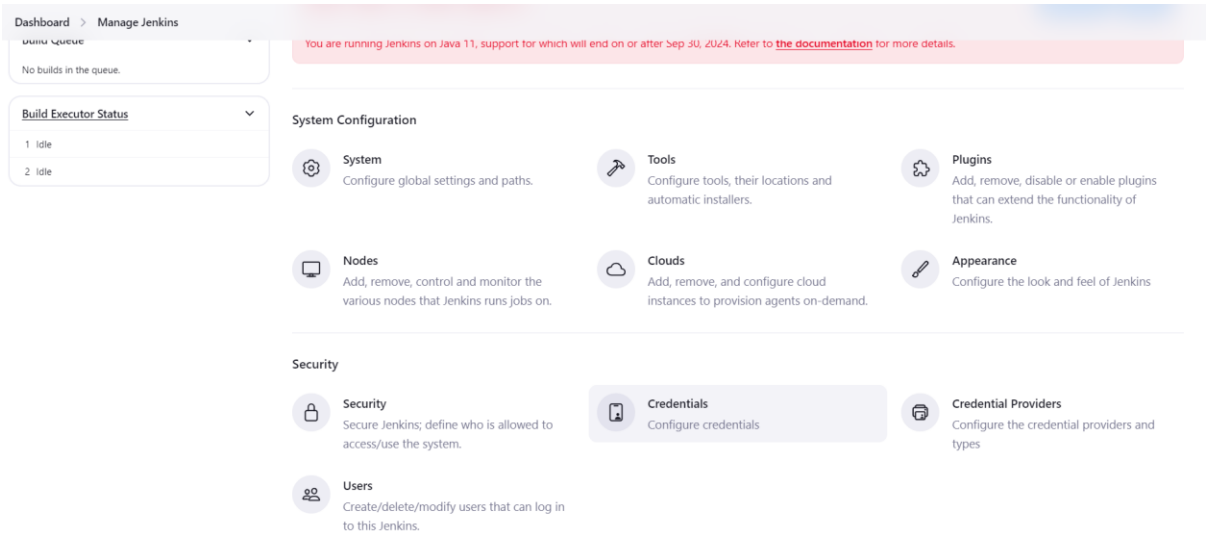
After give restart Jenkins, refresh the Jenkins page. again, ask Jenkins login and password.

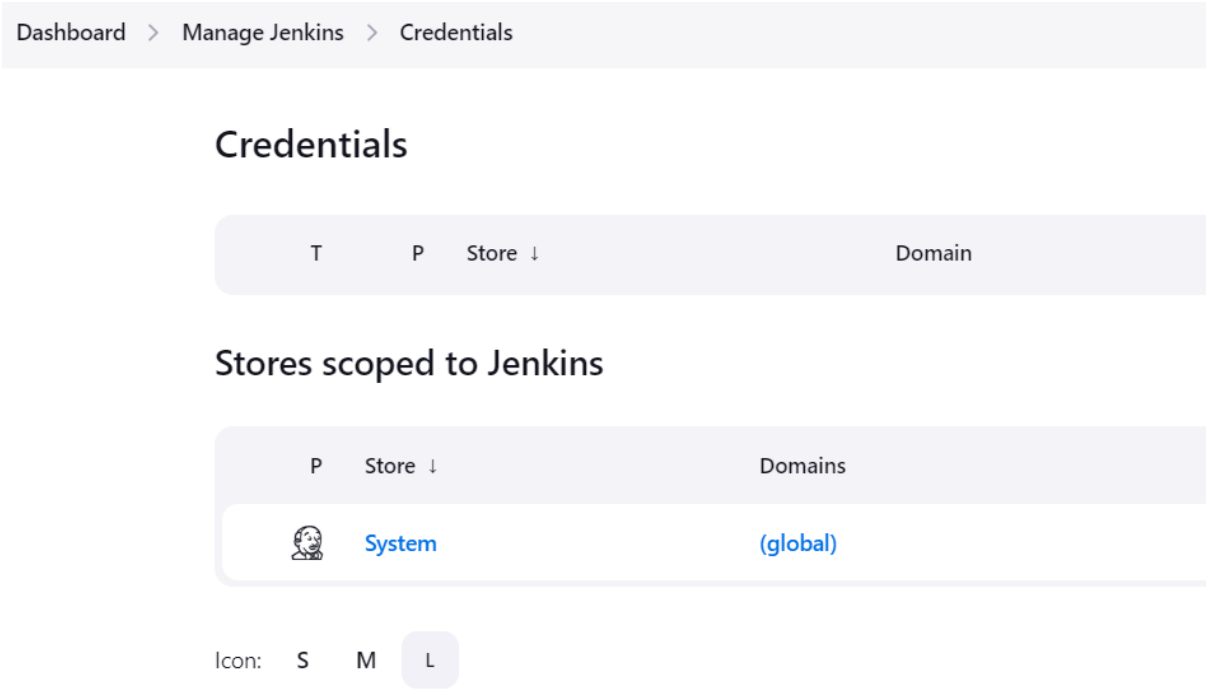
Add credentials:

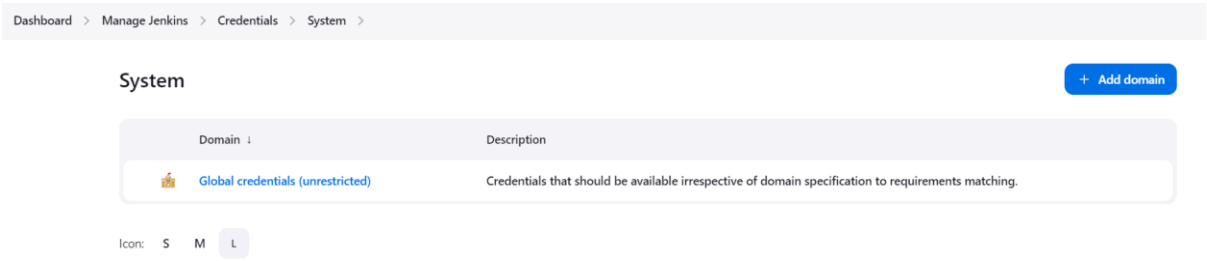
we have to pass the credentials for the Doctor Hub. **to push your image to the docker hub registry. You need to do a docker login. So, for docker login. You have to give the username and password. So, your Jenkins have to do the docker login.**

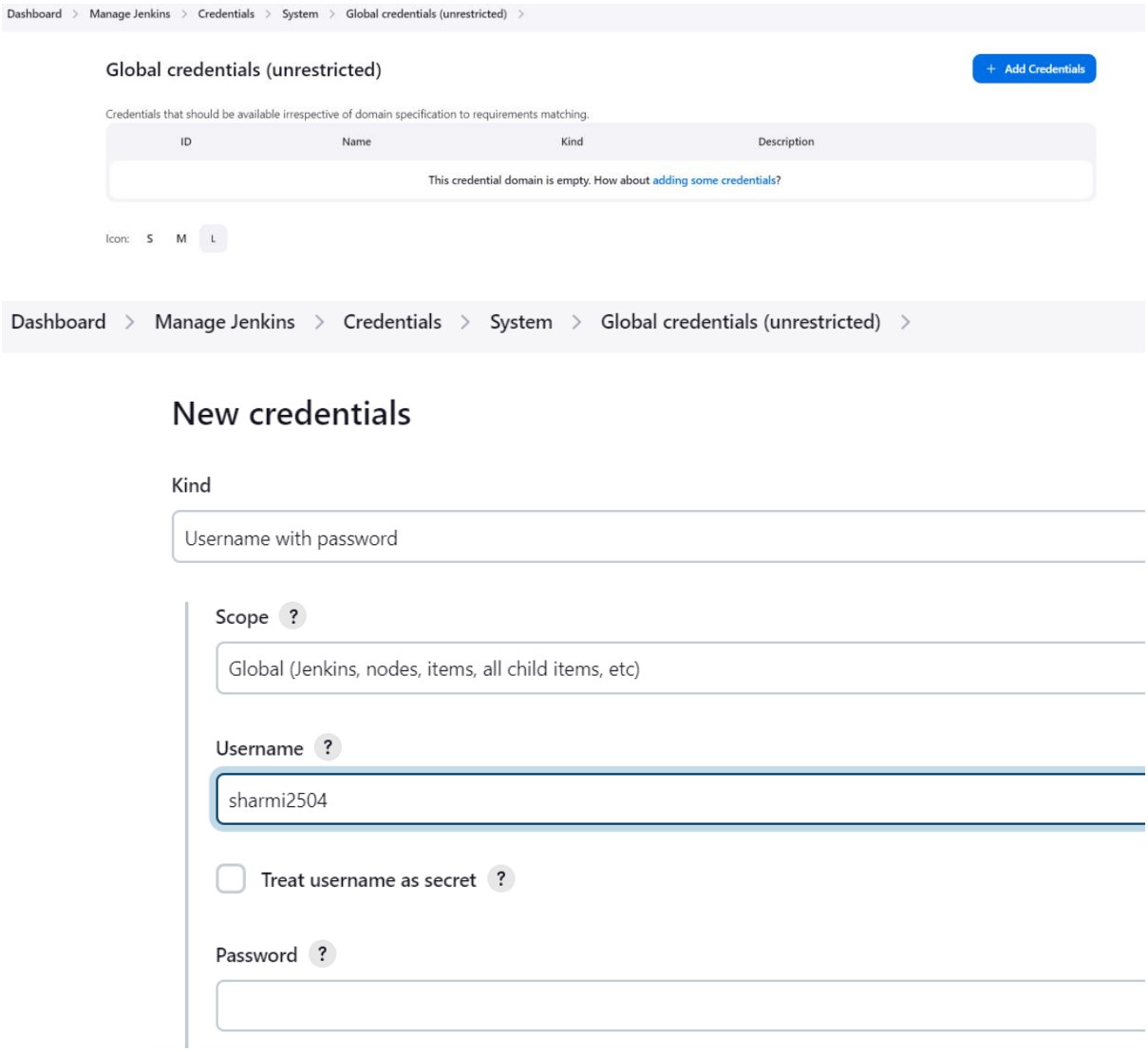
Add credentials

Click dashboard → manage Jenkins→ credentials

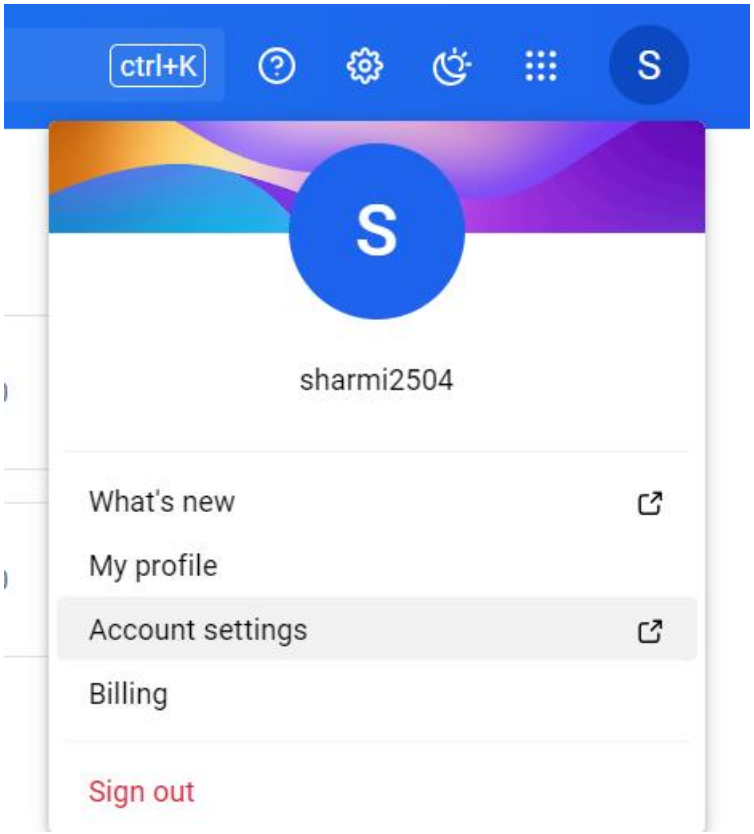

Dashboard > Manage Jenkins
No builds in the queue.
Build Executor Status
1 Idle
2 Idle
You are running Jenkins on Java 11, support for which will end on or after Sep 30, 2024. Refer to the documentation for more details.
System Configuration
System
Configure global settings and paths.
Tools
Configure tools, their locations and automatic installers.
Plugins
Add, remove, disable or enable plugins that can extend the functionality of Jenkins.
Nodes
Add, remove, control and monitor the various nodes that Jenkins runs jobs on.
Clouds
Add, remove, and configure cloud instances to provision agents on-demand.
Appearance
Configure the look and feel of Jenkins
Security
Security
Secure Jenkins; define who is allowed to access/use the system.
Credentials
Configure credentials
Credential Providers
Configure the credential providers and types
Users
Create/delete/modify users that can log in to this Jenkins.


Dashboard > Manage Jenkins > Credentials
Credentials
T P Store ↓ Domain
Stores scoped to Jenkins
P Store ↓ Domains
System (global)
Icon: S M L


Dashboard > Manage Jenkins > Credentials > System >
System
+ Add domain
Domain ↓
Description
Global credentials (unrestricted)
Credentials that should be available irrespective of domain specification to requirements matching.
Icon: S M L



Above username is dockerhub user name.For password we generate tokens like github.



Password

****

You can change your password by initiating a reset via email. Reset password

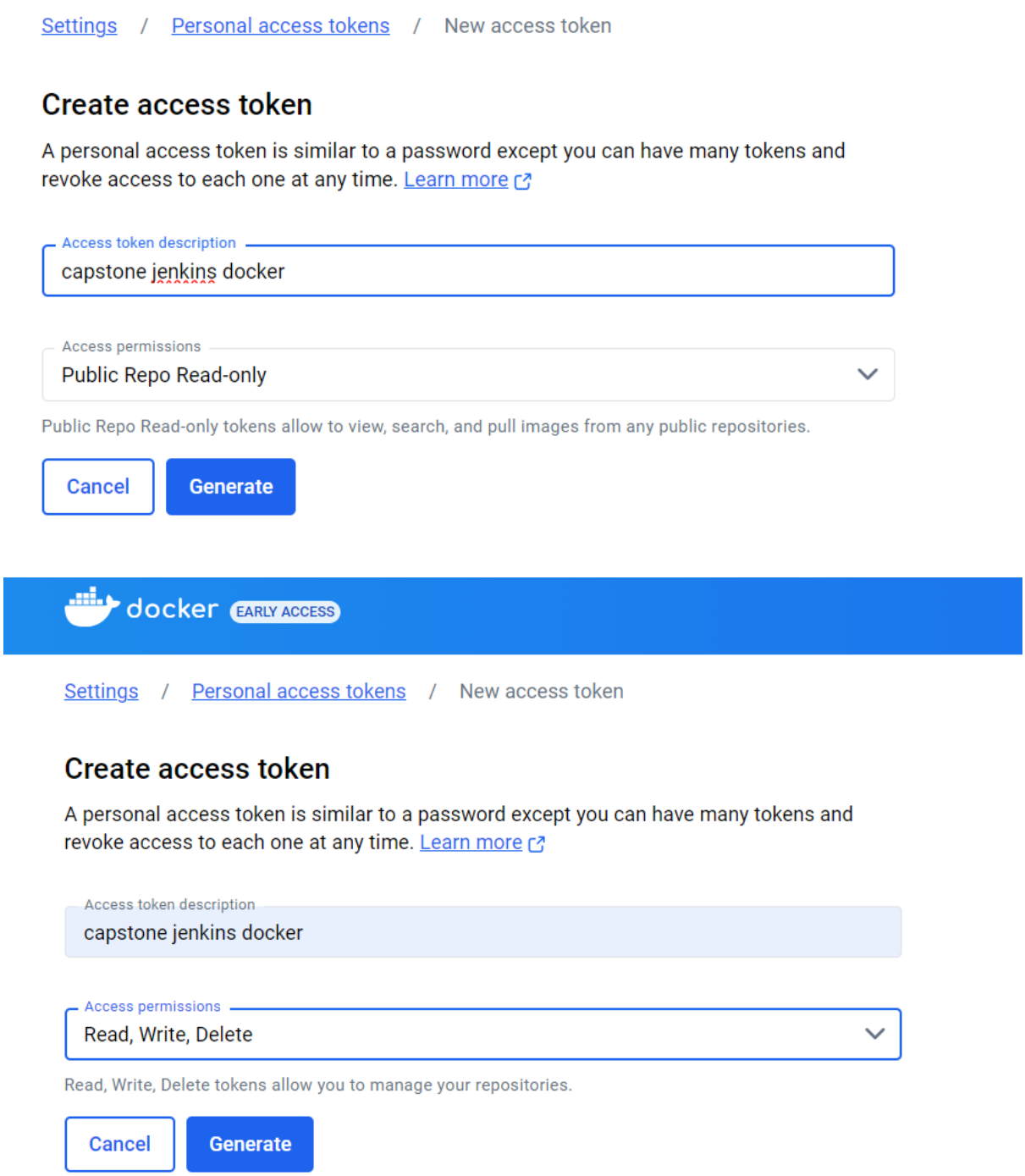
Security

Two-factor authentication

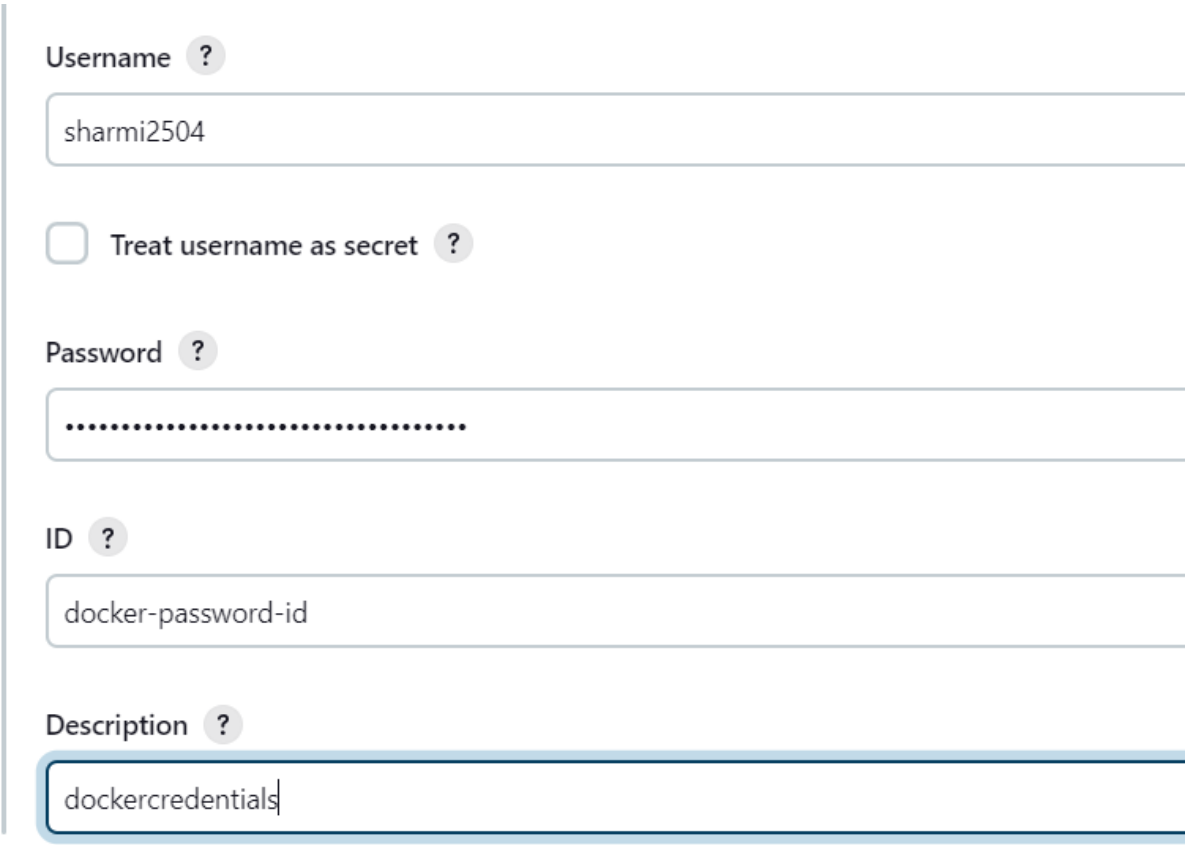
Two factor authentication is **disabled**.

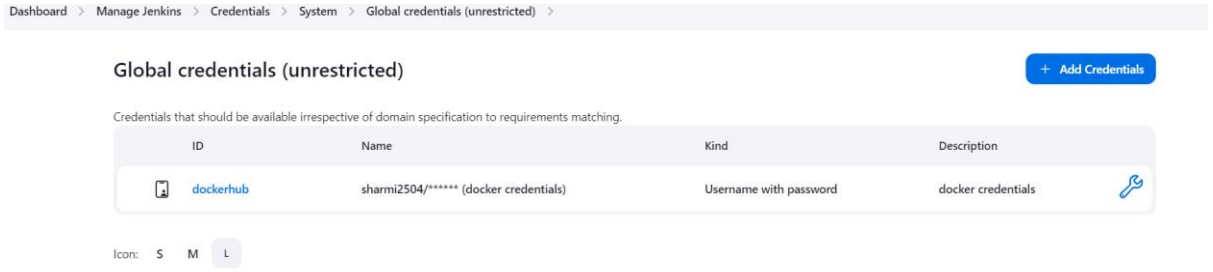
Personal access tokens

There is 1 personal access token associated with your account.

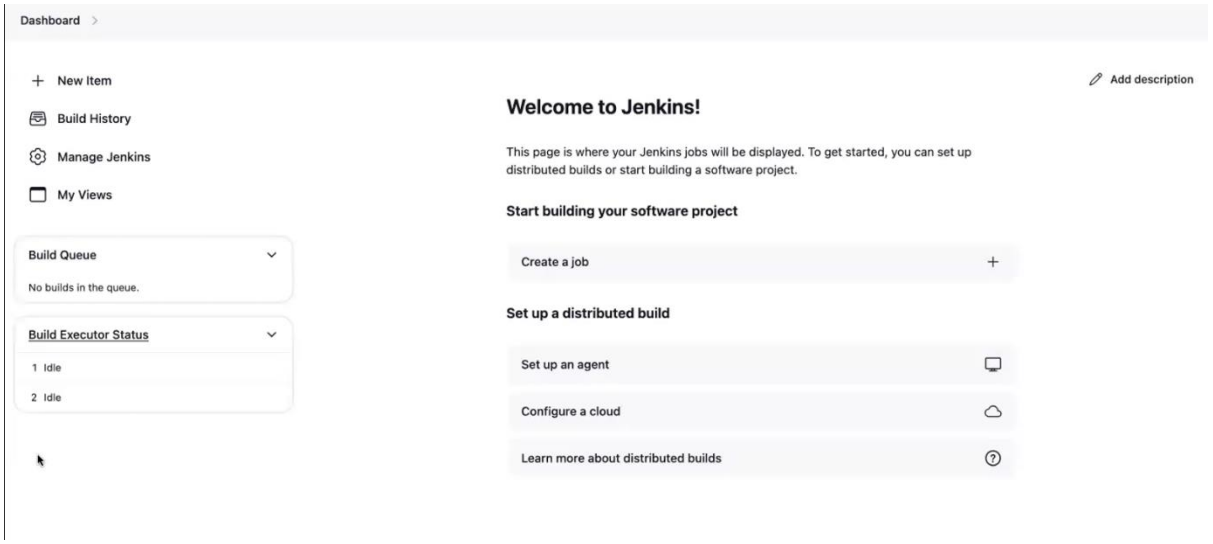


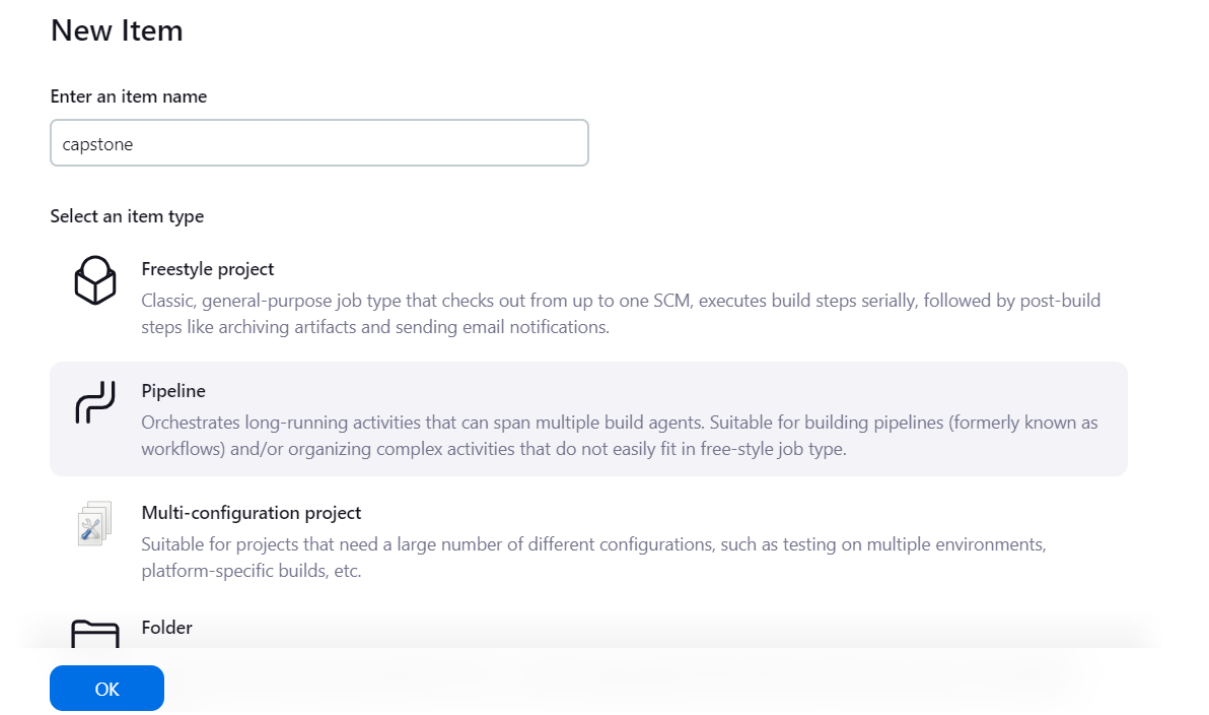
Copy the token, paste it in Jenkins

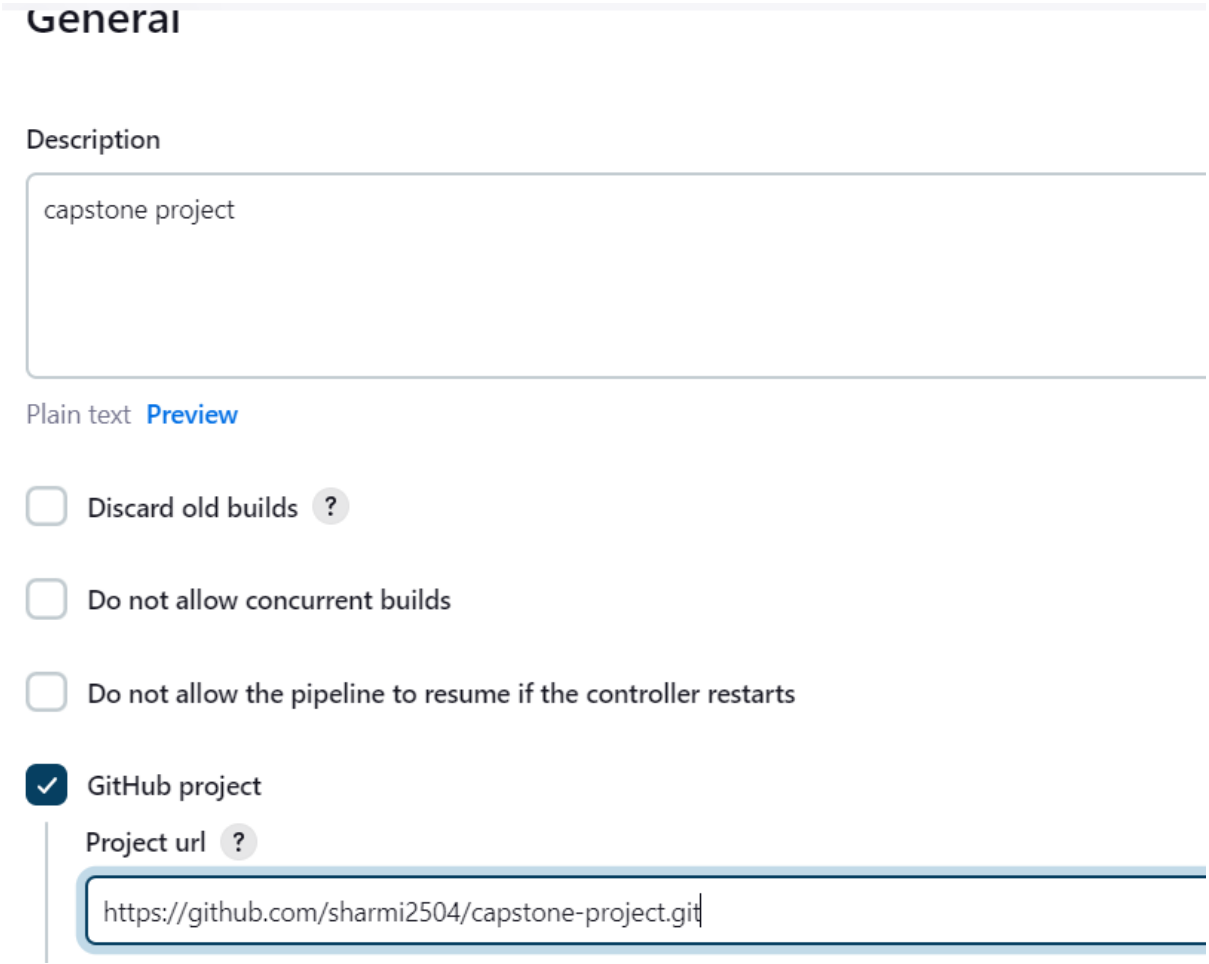




Now create the job in Jenkins:




New Item
Enter an item name
capstone
Select an item type
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
OK


General
Description
capstone project
Plain text
Preview
Discard old builds
Do not allow concurrent builds
Do not allow the pipeline to resume if the controller restarts
GitHub project
Project url
https://github.com/sharmi2504/capstone-project.git

Pipeline

Definition

Pipeline script from SCM

SCM

Git

None

Git

Repository URL

https://github.com/sharmi2504/capstone-project.git

Credentials

- none -

+ Add

SCM

Git

Repositories

Repository URL

https://github.com/sharmi2504/capstone-project.git

Credentials

- none -

- none -

sharmi2504/****** (docker credentials)

Advanced

SCM

Git

Repositories

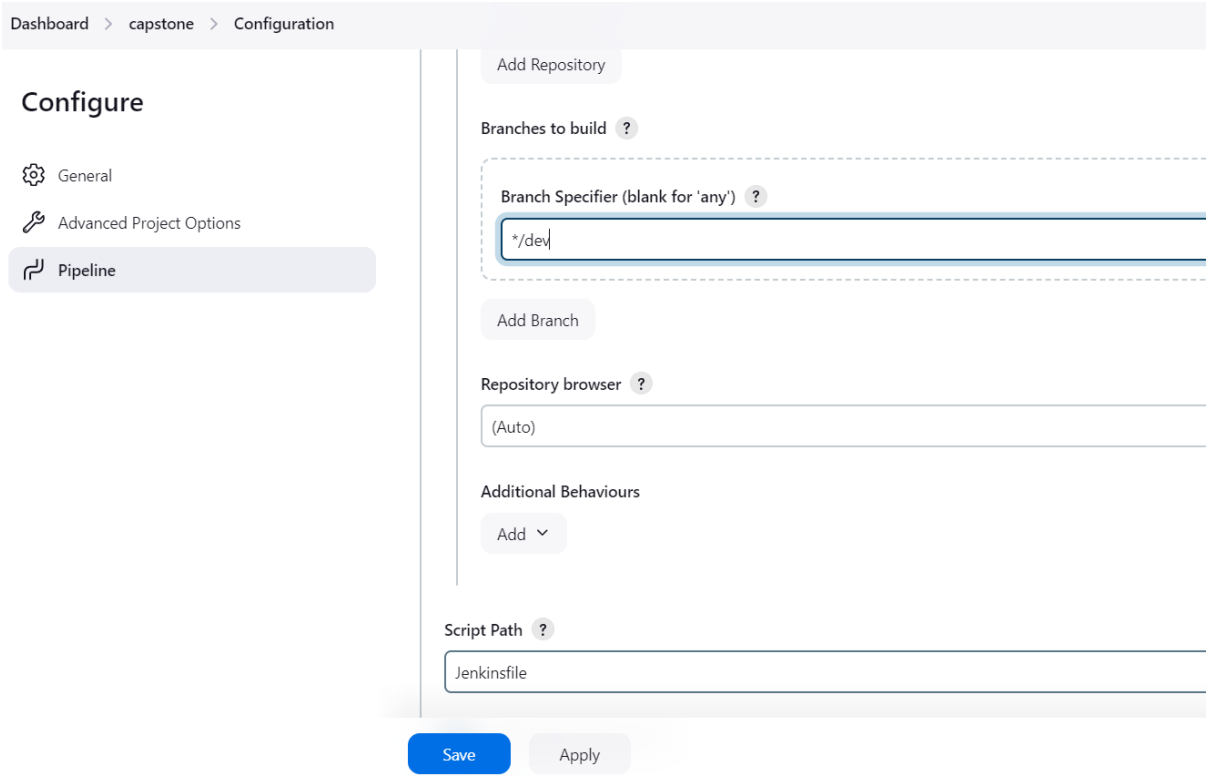
Repository URL

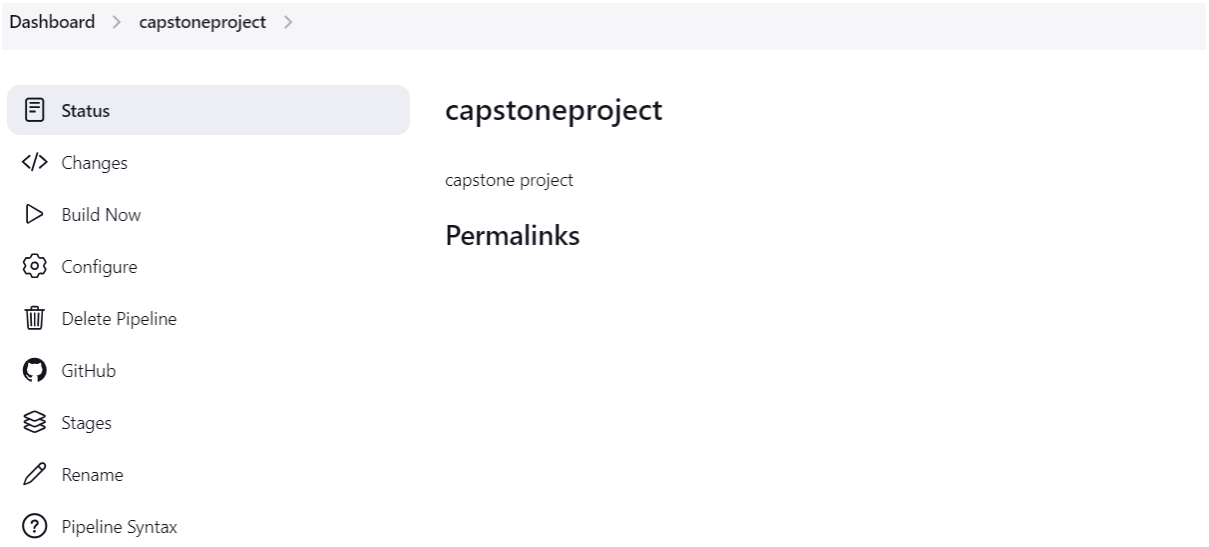
https://github.com/sharmi2504/capstone-project.git

Credentials

sharmi2504/****** (docker credentials)

+ Add

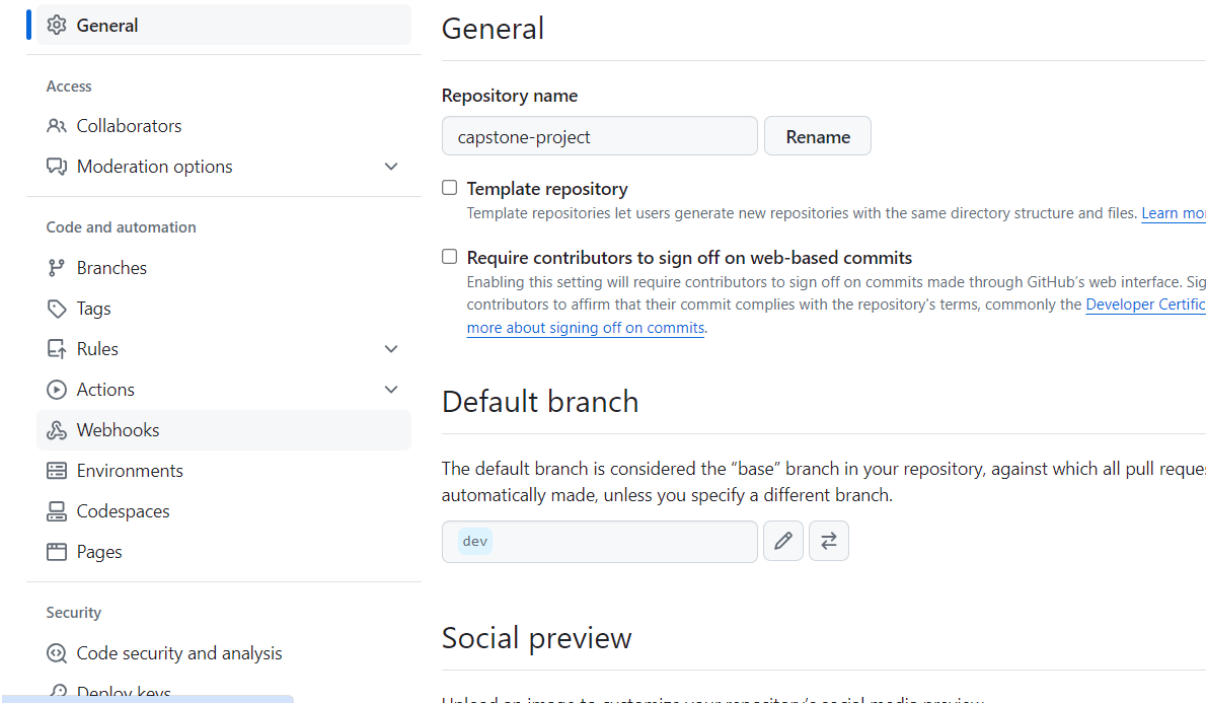


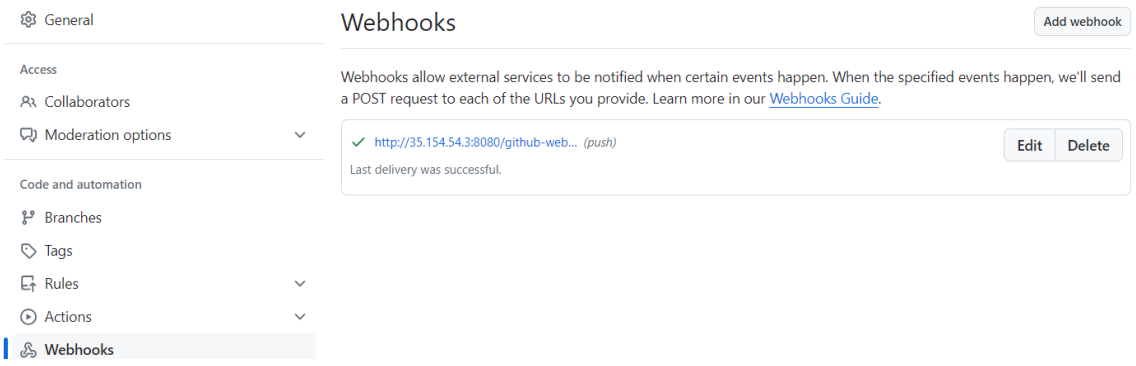


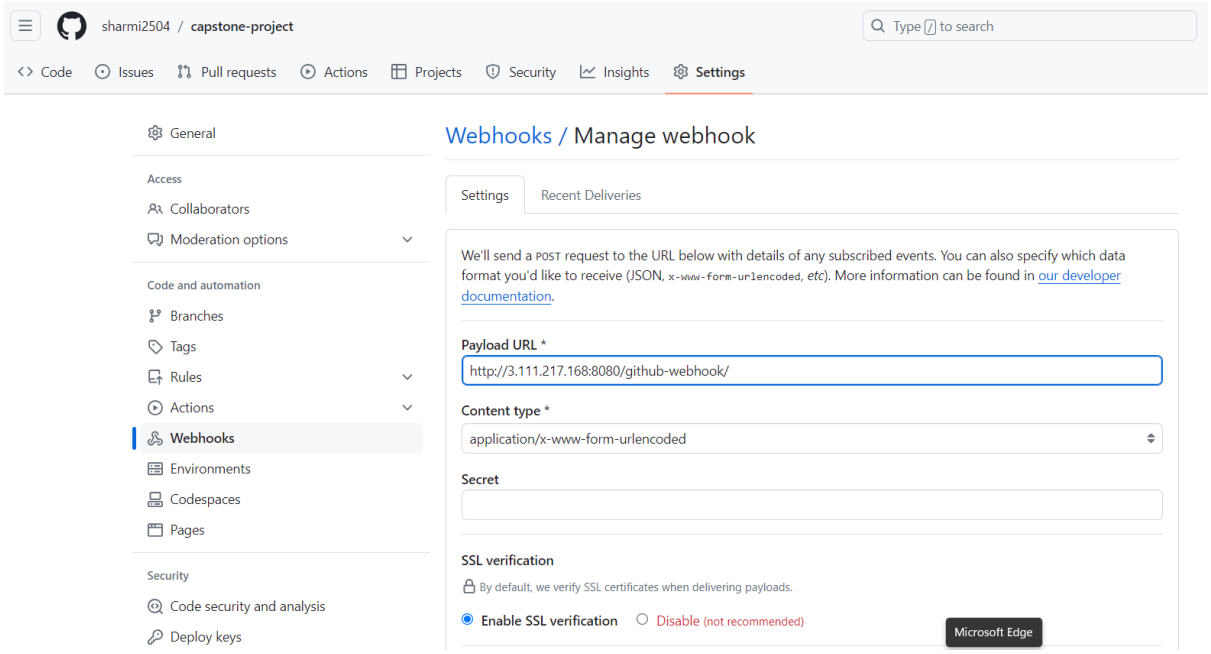
Webhook in git:

Connect Jenkins to GitHub:

- **Configure GitHub webhook to trigger builds on push events.**
- **Go to GitHub repository settings -> Webhooks -> Add webhook -> Jenkins URL .**


General
Access
Collaborators
Moderation options
Code and automation
Branches
Tags
Rules
Actions
Webhooks
Environments
Codespaces
Pages
Security
Code security and analysis
General
Repository name
capstone-project
Rename
Template repository
Template repositories let users generate new repositories with the same directory structure and files. Learn mo
Require contributors to sign off on web-based commits
Enabling this setting will require contributors to sign off on commits made through GitHub's web interface. Sig
contributors to affirm that their commit complies with the repository's terms, commonly the Developer Certific
more about signing off on commits.
Default branch
The default branch is considered the "base" branch in your repository, against which all pull reque
automatically made, unless you specify a different branch.
dev
Social preview


General
Access
Collaborators
Moderation options
Code and automation
Branches
Tags
Rules
Actions
Webhooks
Webhooks
Add webhook
Webhooks allow external services to be notified when certain events happen. When the specified events happen, we'll send a POST request to each of the URLs you provide. Learn more in our Webhooks Guide.
http://35.154.54.3:8080/github-web... (push)
Last delivery was successful.
Edit
Delete

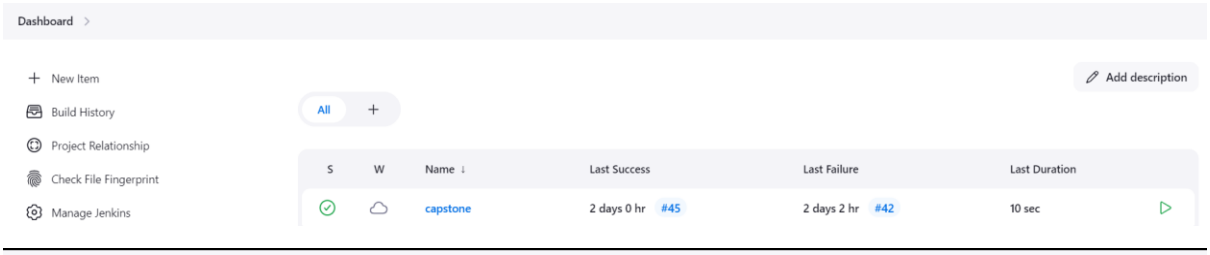


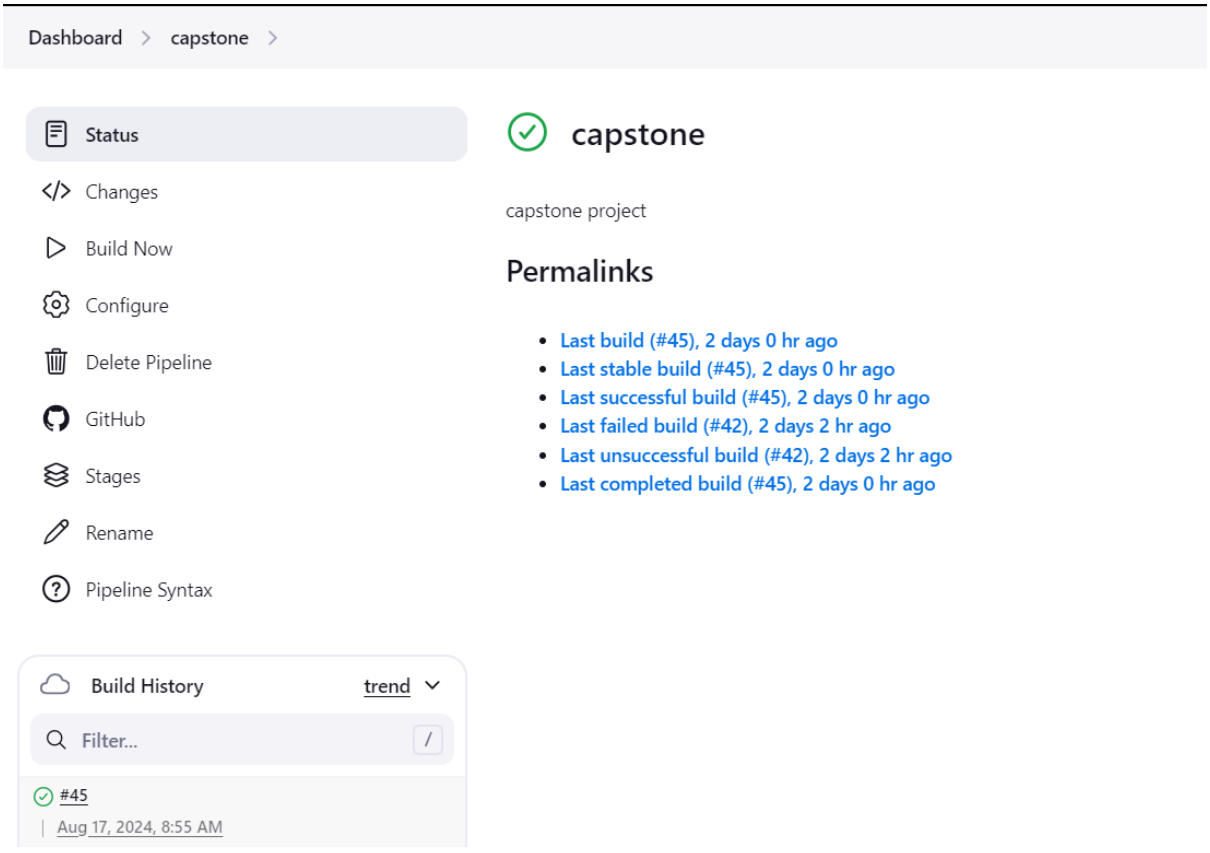
Create master branch in github:

```
ubuntu@ip-172-31-46-99:~$ ls
capstone-project  devops-build  dockerfile
ubuntu@ip-172-31-46-99:~$ cd capstone-project/
ubuntu@ip-172-31-46-99:~/capstone-project$ ls
build  build.sh  deploy.sh  docker-compose.yaml  dockerfile  jenkinsfile
ubuntu@ip-172-31-46-99:~/capstone-project$ git branch master
ubuntu@ip-172-31-46-99:~/capstone-project$ git checkout master
Switched to branch 'master'
ubuntu@ip-172-31-46-99:~/capstone-project$ git branch
  dev
  main
* master
ubuntu@ip-172-31-46-99:~/capstone-project$ git pull origin master
fatal: couldn't find remote ref master
ubuntu@ip-172-31-46-99:~/capstone-project$ git push origin master
Username for 'https://github.com': sharmi2504
Password for 'https://sharmi2504@github.com':
Enumerating objects: 28, done.
Counting objects: 100% (28/28), done.
Compressing objects: 100% (27/27), done.
Writing objects: 100% (28/28), 720.53 KiB | 4.24 MiB/s, done.
Total 28 (delta 2), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (2/2), done.
remote:
remote: Create a pull request for 'master' on GitHub by visiting:
remote:      https://github.com/sharmi2504/capstone-project/pull/new/master
remote:
```

```
remote: Create a pull request for 'master' on GitHub by visiting:
remote:      https://github.com/sharmi2504/capstone-project/pull/new/master
remote:
To https://github.com/sharmi2504/capstone-project.git
 * [new branch]      master -> master
ubuntu@ip-172-31-46-99:~/capstone-project$ git pull origin master
From https://github.com/sharmi2504/capstone-project
 * branch            master     -> FETCH_HEAD
Already up to date.
ubuntu@ip-172-31-46-99:~/capstone-project$ git merge dev
Already up to date.
ubuntu@ip-172-31-46-99:~/capstone-project$
```

Pipeline:

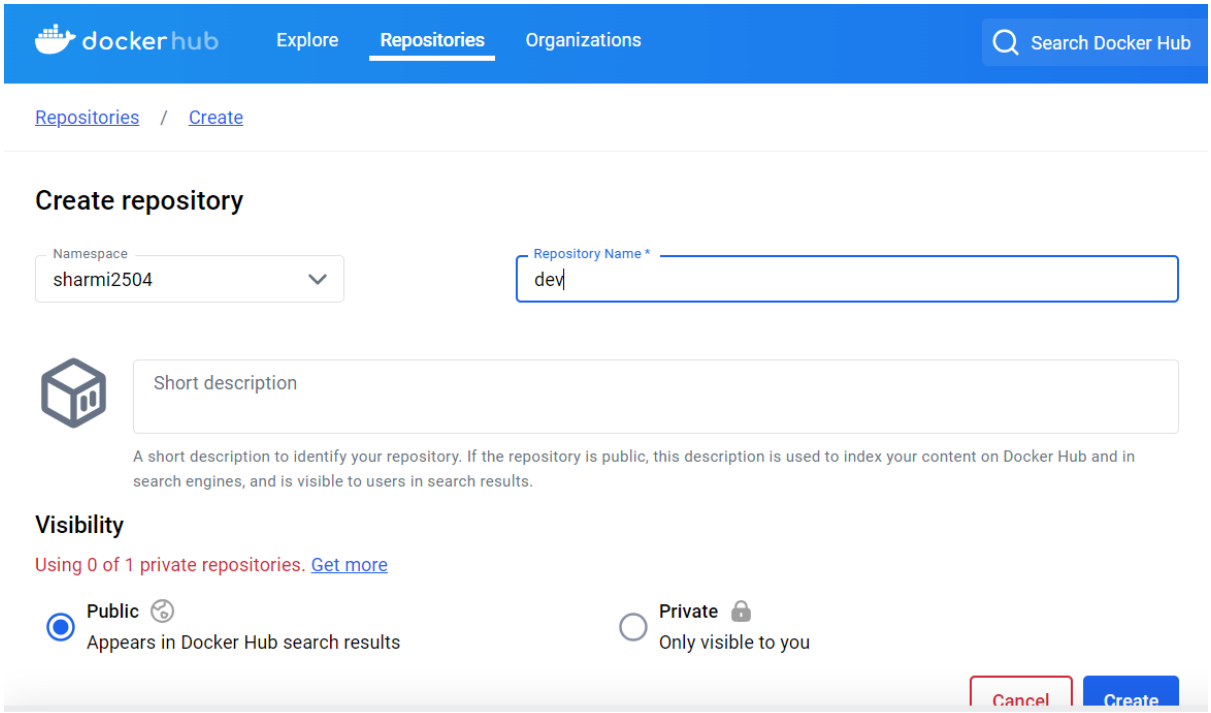


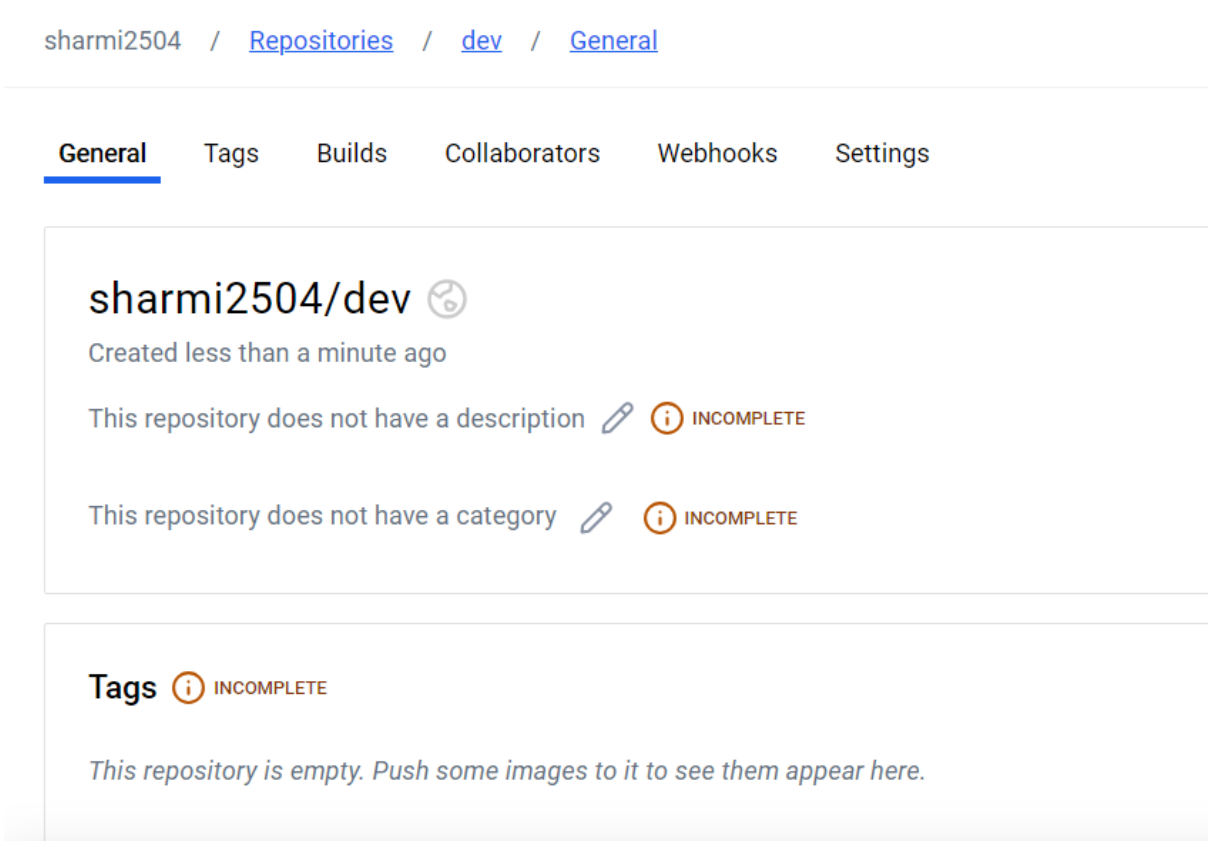


Create 2 repo in docker:

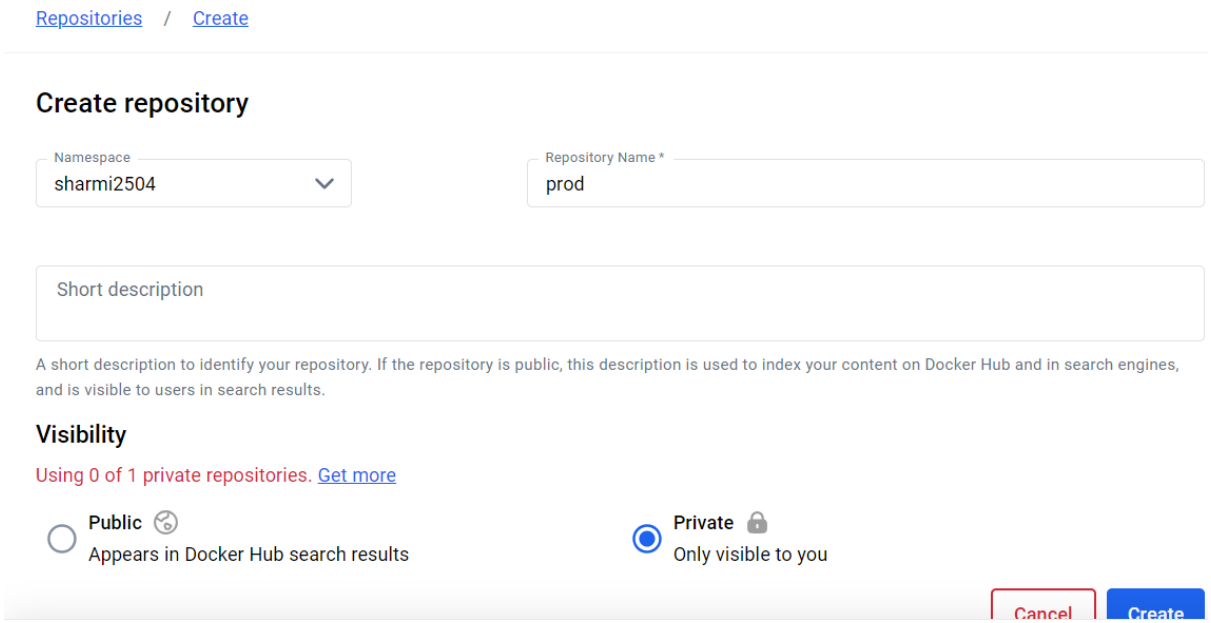
1. **Dev repo -public**
2. **Prod- private**

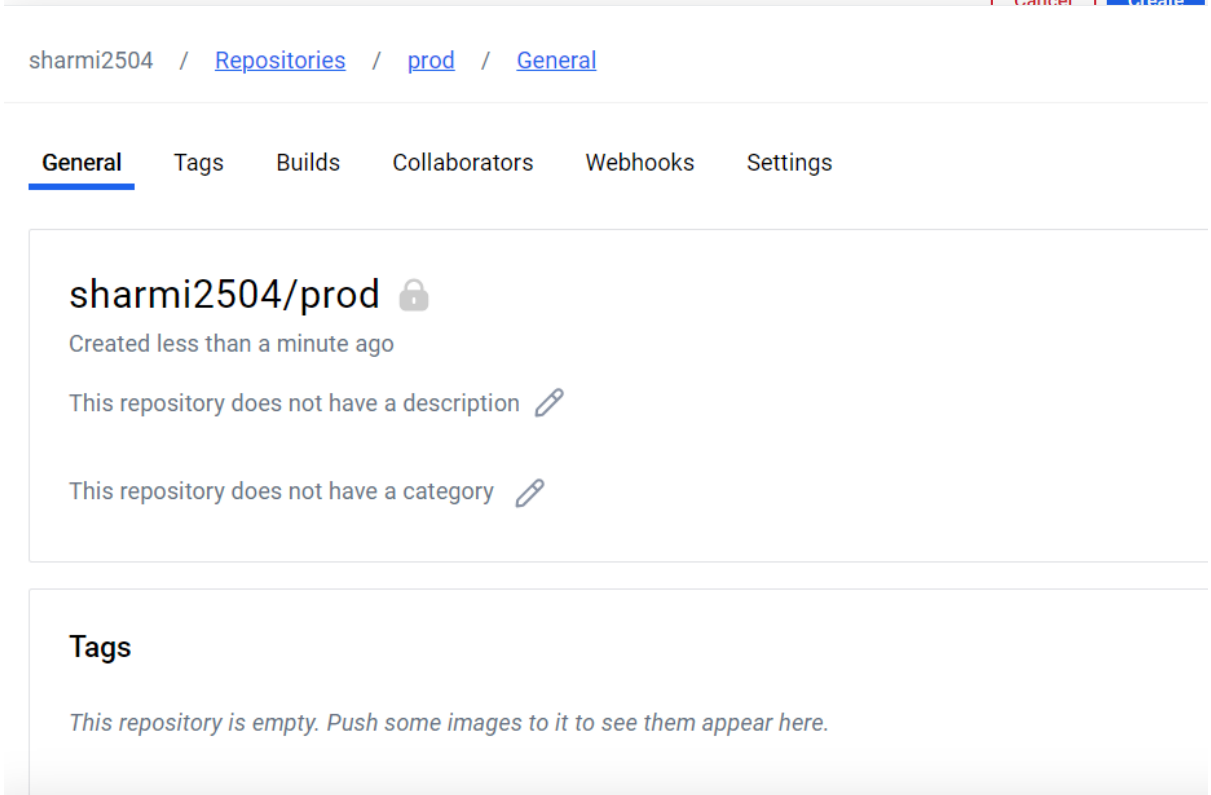
Dev repo-public:

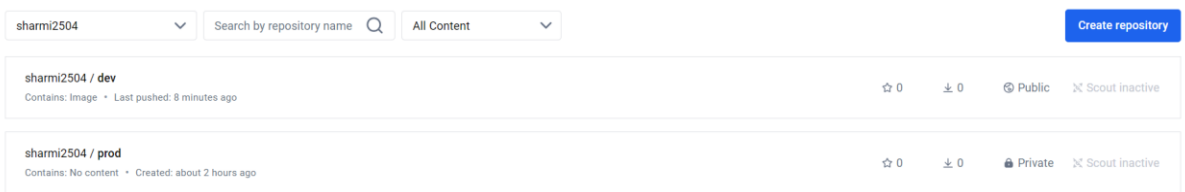




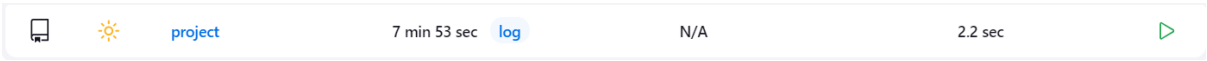
Prod repo – private:

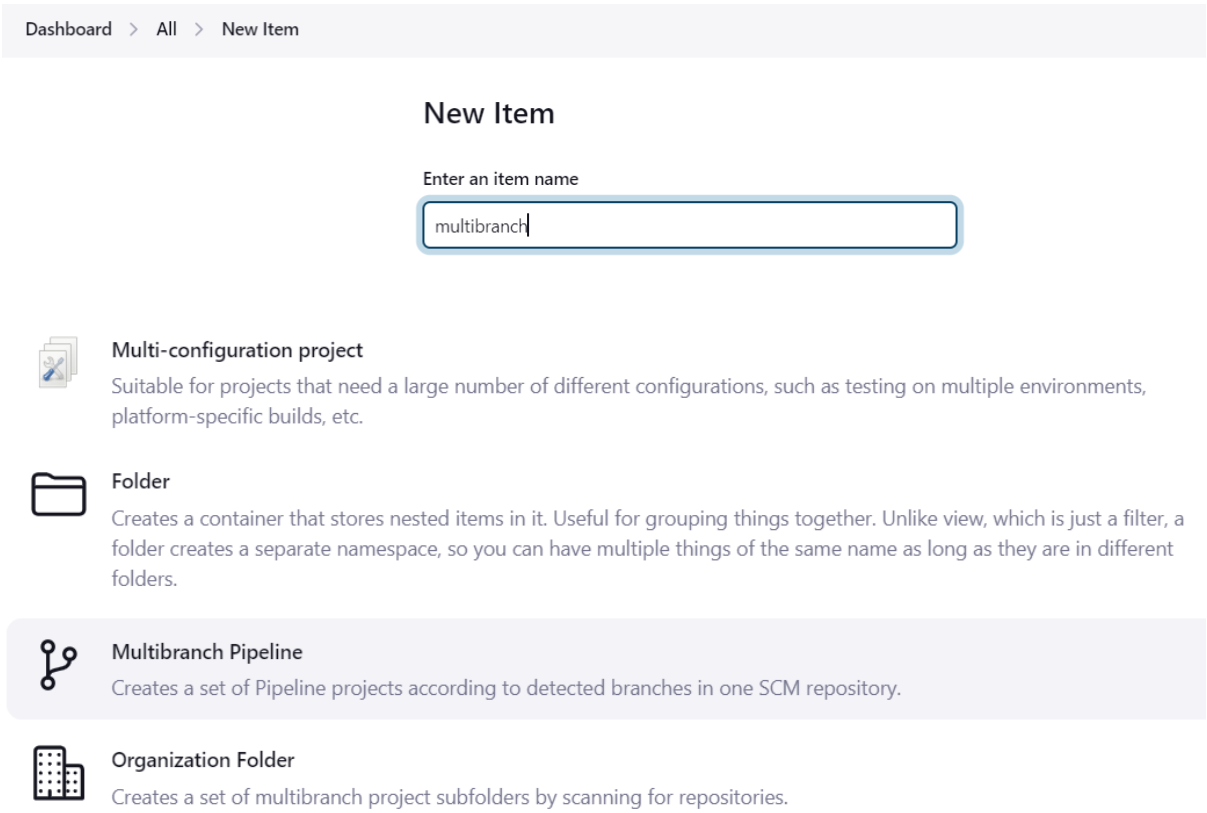




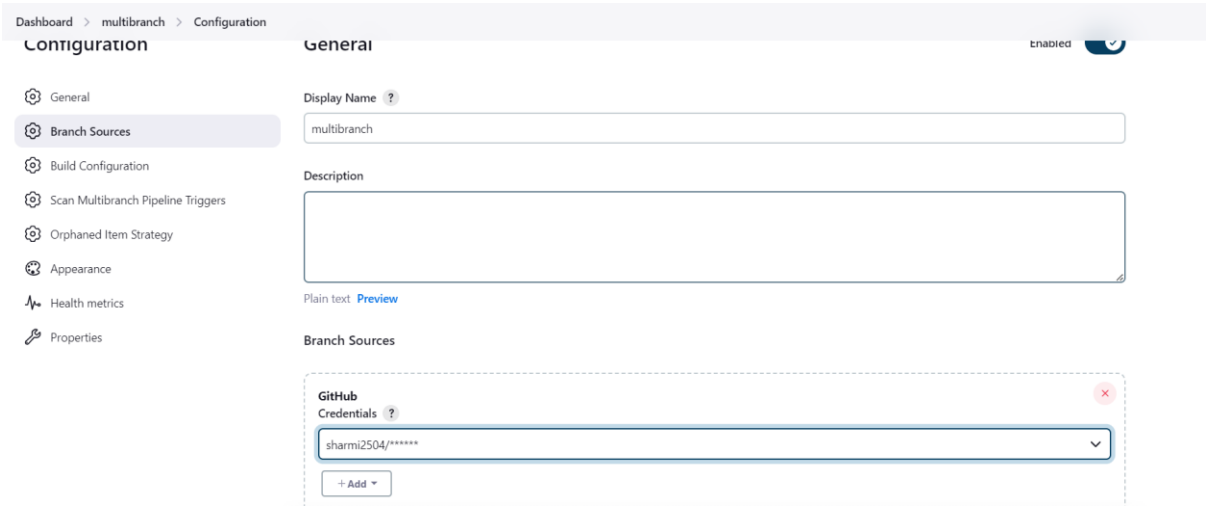


Multibranch pipeline:





Configuration:



Branch Sources

GitHub
Credentials ?

sharmi2504/******

- none -
sharmi2504/******
sharmi2504/****** (dockercredentials)

Repository HTTPS URL

Repository HTTPS URL ?

https://github.com/sharmi2504/capstone-project.git

Validate

GitHub
Credentials ?

sharmi2504/******

+ Add

Repository HTTPS URL

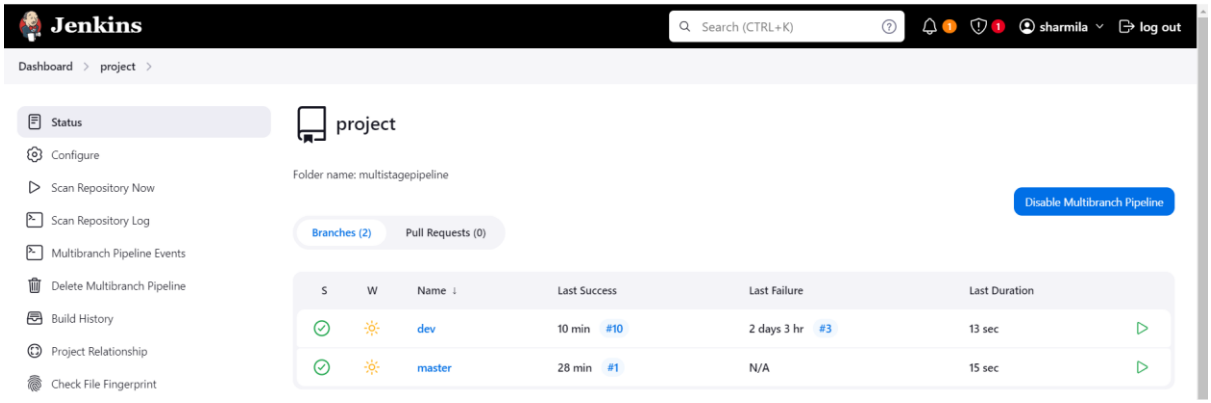
Repository HTTPS URL ?

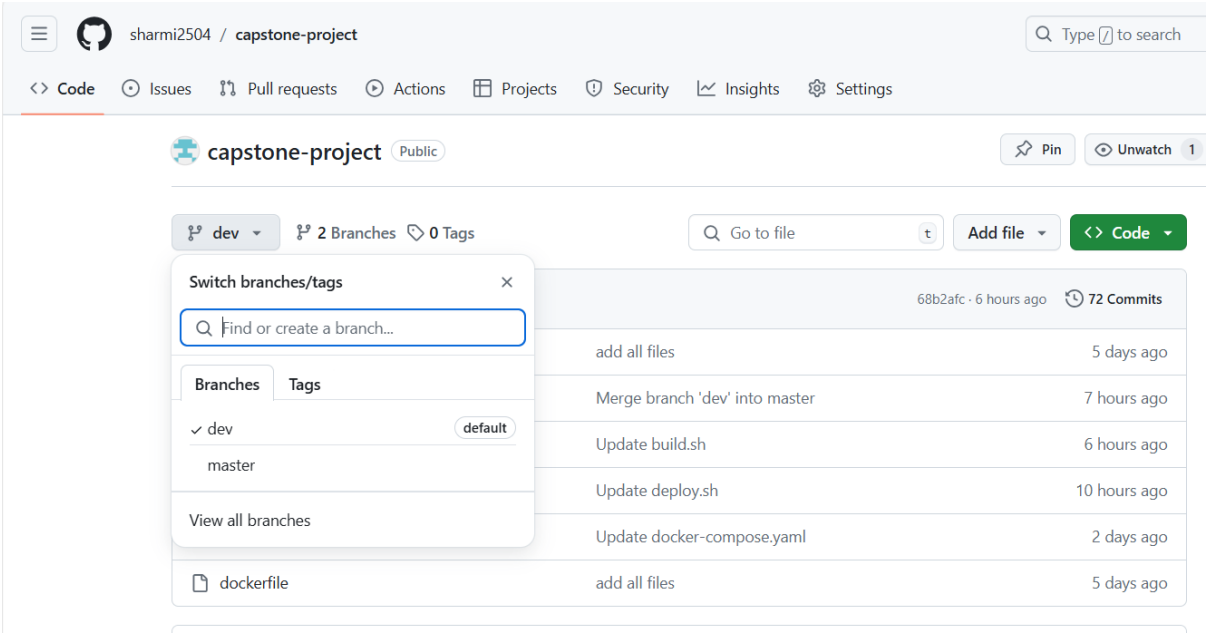
https://github.com/sharmi2504/capstone-project.git

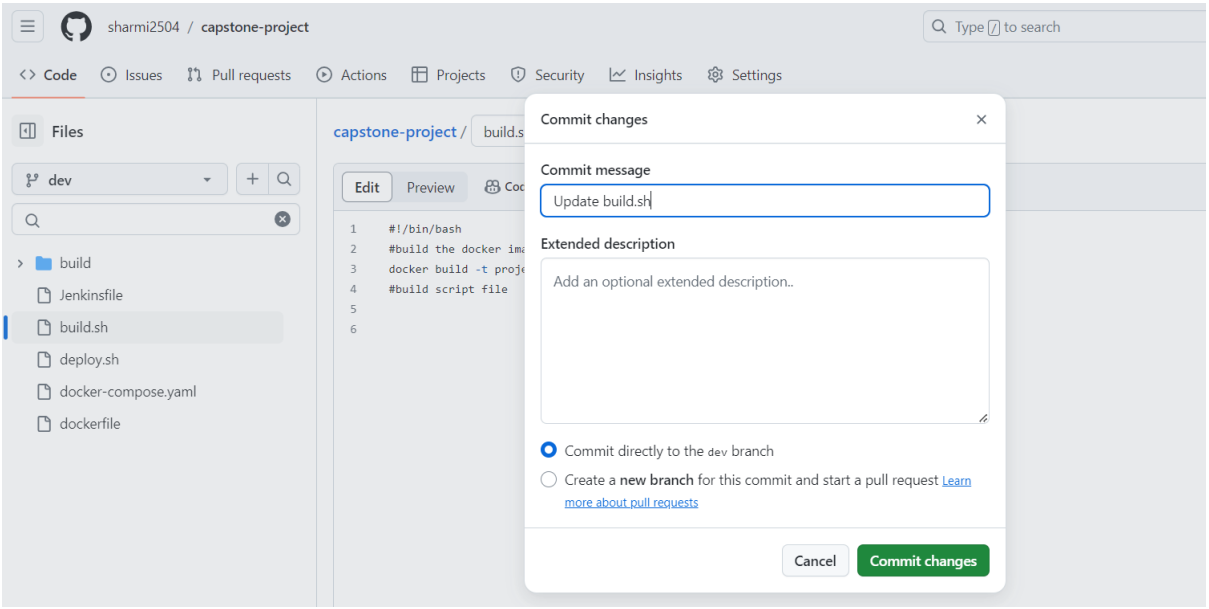
Credentials ok. Connected to https://github.com/sharmi2504/capstone-project.

Validate

Repository Scan - Deprecated Visualization




sharmi2504 / capstone-project
Type / to search
Code
Issues
Pull requests
Actions
Projects
Security
Insights
Settings
capstone-project
Public
Pin
Unwatch 1
dev
2 Branches
0 Tags
Go to file
t
Add file
Code
Switch branches/tags
Find or create a branch...
Branches
Tags
dev
default
master
View all branches
68b2afc · 6 hours ago
72 Commits
add all files
5 days ago
Merge branch 'dev' into master
7 hours ago
Update build.sh
6 hours ago
Update deploy.sh
10 hours ago
Update docker-compose.yaml
2 days ago
dockerfile
add all files
5 days ago


sharmi2504 / capstone-project
Type / to search
Code
Issues
Pull requests
Actions
Projects
Security
Insights
Settings
Files
dev
build
Jenkinsfile
build.sh
deploy.sh
docker-compose.yaml
dockerfile
capstone-project /
Edit
Preview
#!/bin/bash
#build the docker ima
docker build -t proje
#build script file
Commit changes
Commit message
Update build.sh
Extended description
Add an optional extended description..
Commit directly to the dev branch
Create a new branch for this commit and start a pull request Learn more about pull requests
Cancel
Commit changes

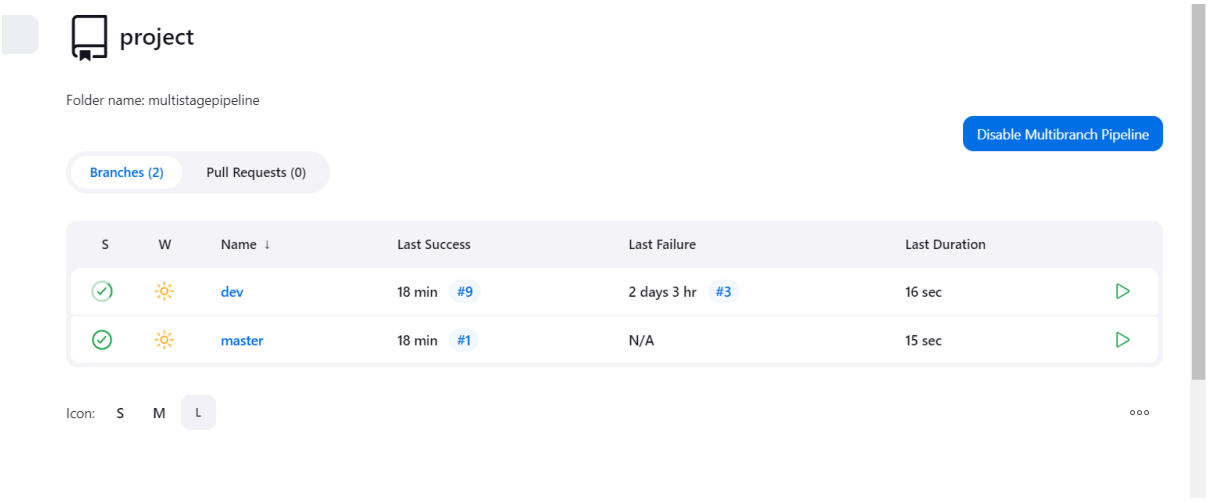
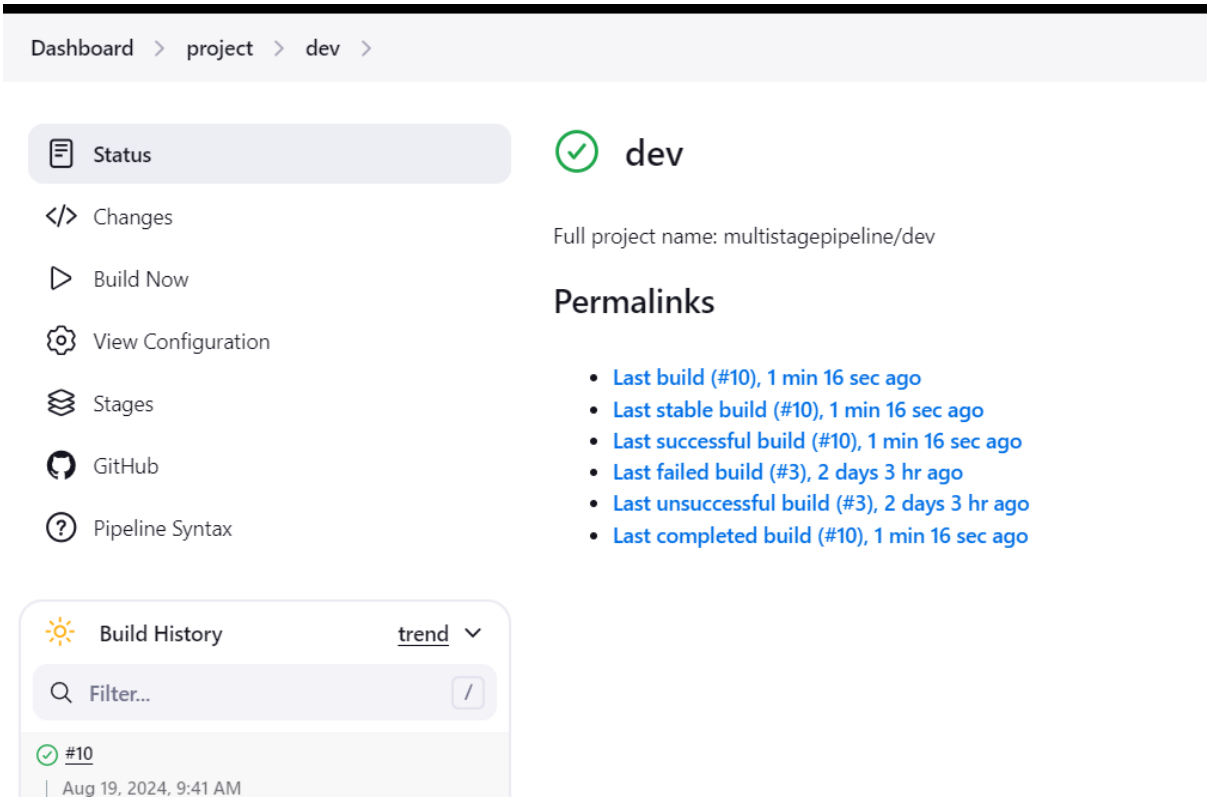
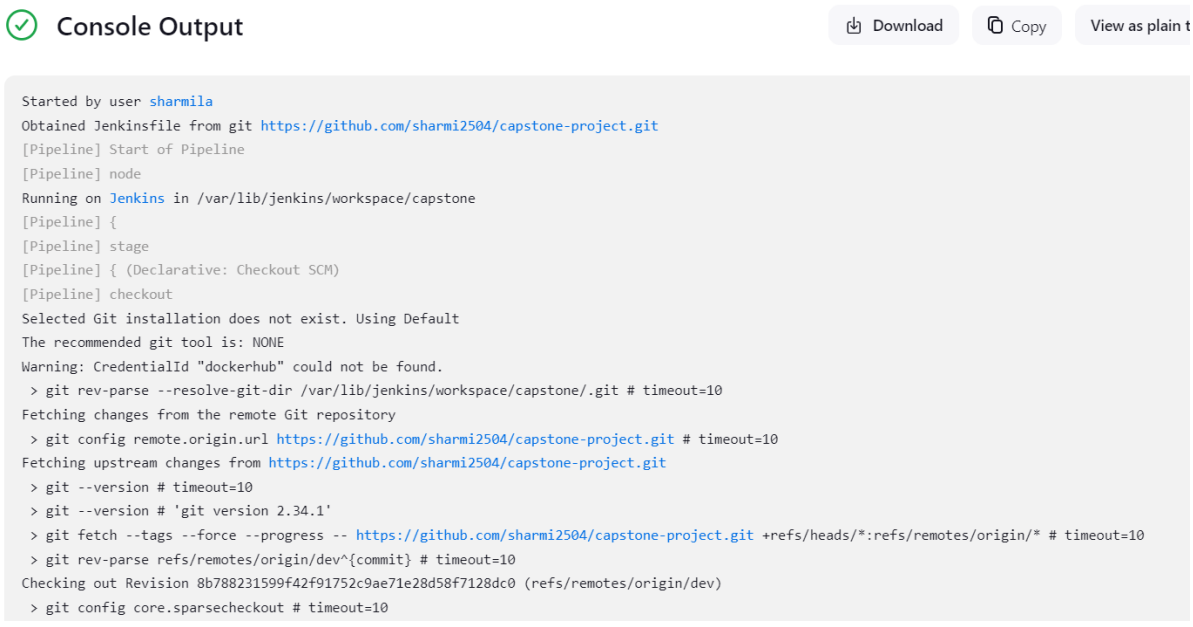

project
Folder name: multistagepipeline
Disable Multibranch Pipeline
Branches (2)
Pull Requests (0)
S
W
Name ↓
Last Success
Last Failure
Last Duration
dev
18 min #9
2 days 3 hr #3
16 sec
master
18 min #1
N/A
15 sec
Icon: S M L

Image pushed to prod repo:

Multipipeline – changes in dev automatically image pushed to dev repo



Console output:



```
Checking out Revision 8b788231599f42f91752c9ae71e28d58f7128dc0 (refs/remotes/origin/dev)
 > git config core.sparsecheckout # timeout=10
 > git checkout -f 8b788231599f42f91752c9ae71e28d58f7128dc0 # timeout=10
Commit message: "Update deploy.sh"
 > git rev-list --no-walk cb37f1a1b45669c3b1e5eb825fbbb5efb4bf6375 # timeout=10
[Pipeline] }
[Pipeline] // stage
[Pipeline] withEnv
[Pipeline] {
[Pipeline] stage
[Pipeline] { (changing the file permission)
[Pipeline] sh
+ chmod +x build.sh
[Pipeline] sh
+ chmod +x deploy.sh
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Build)
[Pipeline] script
[Pipeline] {
[Pipeline] sh
+ ./build.sh
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  3.858MB
```

```
Step 1/5 : FROM nginx:latest
 ---> a72860cb95fd
Step 2/5 : WORKDIR /usr/share/nginx/html
 ---> Using cache
 ---> 834607514a93
Step 3/5 : COPY build/ .
 ---> Using cache
 ---> 3e67ce2f96b2
Step 4/5 : EXPOSE 80
 ---> Using cache
 ---> ae8d137bf4fa
Step 5/5 : CMD ["nginx", "-g", "daemon off;"]
 ---> Using cache
 ---> cd0340c4bf09
Successfully built cd0340c4bf09
Successfully tagged projectimage:latest
[Pipeline] }
[Pipeline] // script
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Login)
[Pipeline] withCredentials
Masking supported pattern matches of $DOCKER_PASSWORD
[Pipeline] {
[Pipeline] sh
+ docker login -u sharmi2504 --password-stdin
```

```
[Pipeline] sh
+ docker login -u sharmi2504 --password-stdin
+ echo ****
WARNING! Your password will be stored unencrypted in /var/lib/jenkins/.docker/config.json.
Configure a credential helper to remove this warning. See
https://docs.docker.com/engine/reference/commandline/login/#credentials-store

Login Succeeded
[Pipeline] }
[Pipeline] // withCredentials
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Deploy)
[Pipeline] script
[Pipeline] {
[Pipeline] sh
+ ./deploy.sh
sh: 0: cannot open chmod +x build.sh: No such file
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  3.858MB

Step 1/5 : FROM nginx:latest
 ---> a72860cb95fd
Step 2/5 : WORKDIR /usr/share/nginx/html
 ---> Using cache
```

```
 ---> 3e67ce2f96b2
Step 4/5 : EXPOSE 80
 ---> Using cache
 ---> ae8d137bf4fa
Step 5/5 : CMD ["nginx", "-g", "daemon off;"]
 ---> Using cache
 ---> cd0340c4bf09
Successfully built cd0340c4bf09
Successfully tagged projectimage:latest
Using default tag: latest
The push refers to repository [docker.io/sharmi2504/dev]
a6883682415c: Preparing
60e72fbb314e: Preparing
599e8de62018: Preparing
09581b9299a2: Preparing
a39383416a22: Preparing
a6355e7844d5: Preparing
fcfa12460e7d: Preparing
e0781bc8667f: Preparing
a6355e7844d5: Waiting
fcfa12460e7d: Waiting
e0781bc8667f: Waiting
599e8de62018: Mounted from sharmi2504/nginx
09581b9299a2: Mounted from sharmi2504/nginx
a39383416a22: Mounted from sharmi2504/nginx
60e72fbb314e: Mounted from sharmi2504/nginx
a6883682415c: Mounted from sharmi2504/nginx
a6355e7844d5: Mounted from sharmi2504/nginx
e0781bc8667f: Mounted from sharmi2504/nginx
```

```
599e8de62018: Mounted from sharmi2504/nginx
09581b9299a2: Mounted from sharmi2504/nginx
a39383416a22: Mounted from sharmi2504/nginx
60e72fbb314e: Mounted from sharmi2504/nginx
a6883682415c: Mounted from sharmi2504/nginx
a6355e7844d5: Mounted from sharmi2504/nginx
e0781bc8667f: Mounted from sharmi2504/nginx
fcfa12460e7d: Mounted from sharmi2504/nginx
latest: digest: sha256:9bd5620d53927747ea0a6e2c080e1532fe3d3fc5c209b4d980247c0c4677367b size: 1988
[Pipeline] }
[Pipeline] // script
[Pipeline] }
[Pipeline] // stage
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // node
[Pipeline] End of Pipeline
Finished: SUCCESS
```

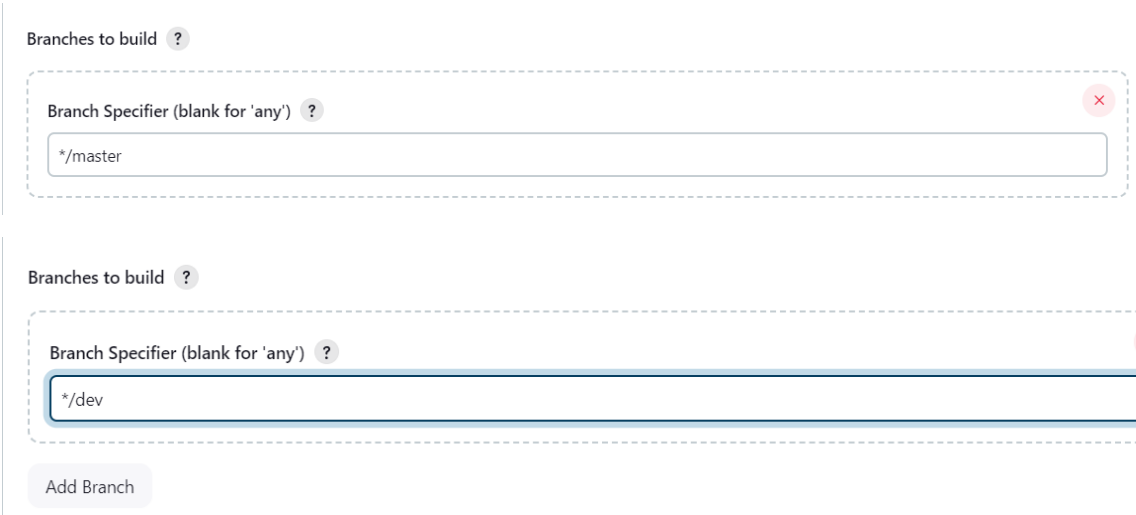
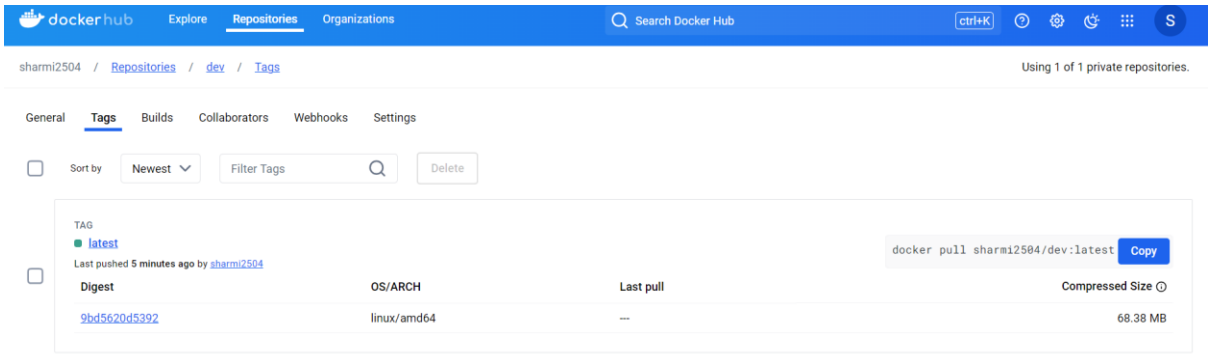
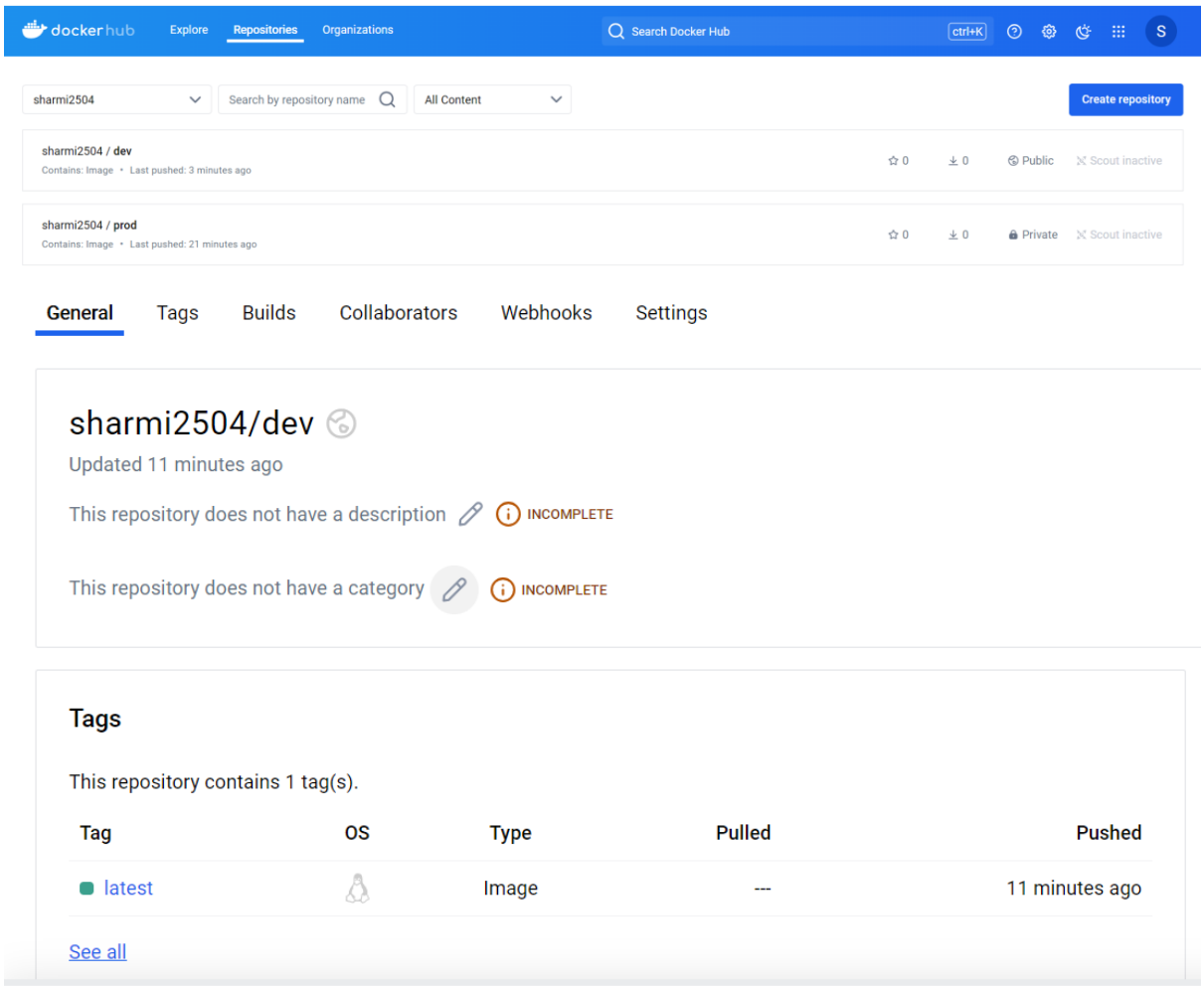
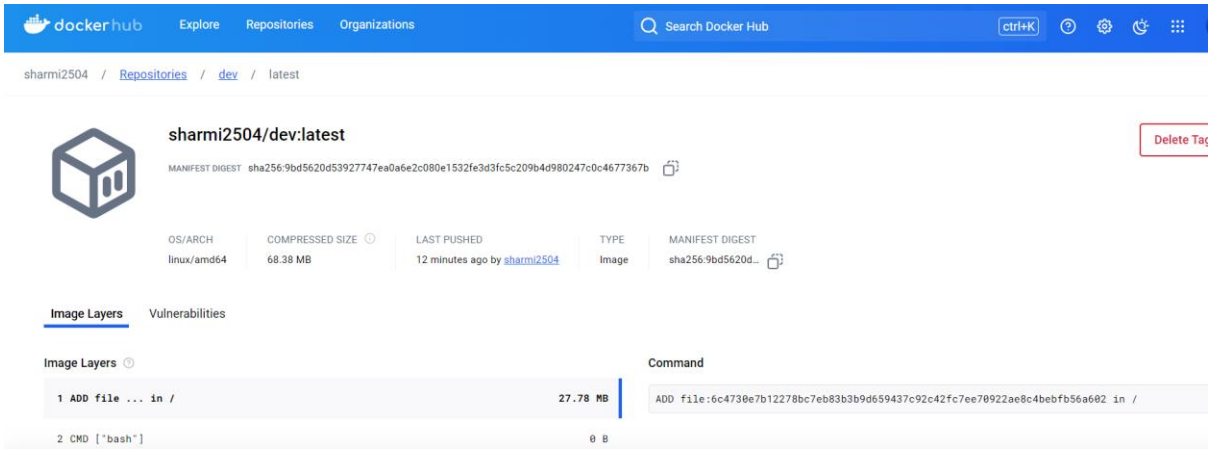
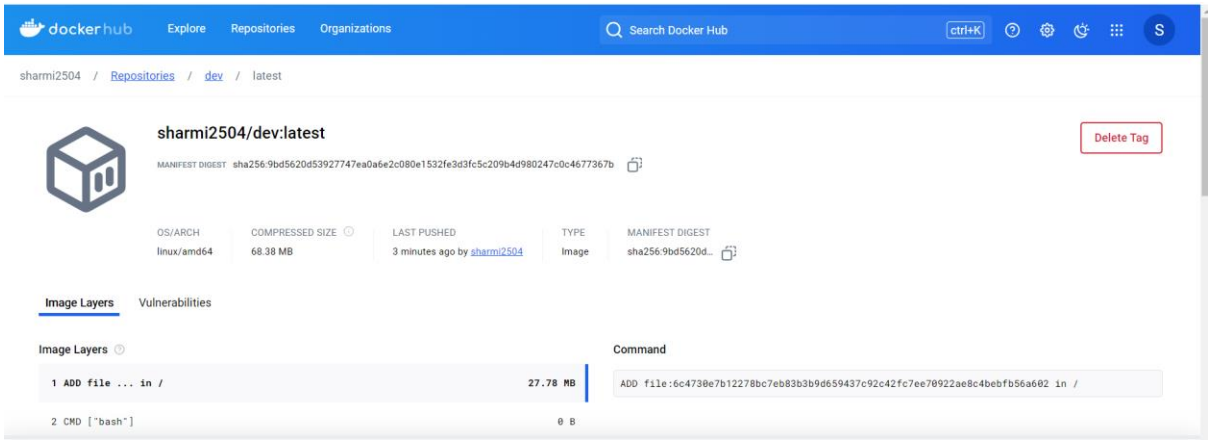


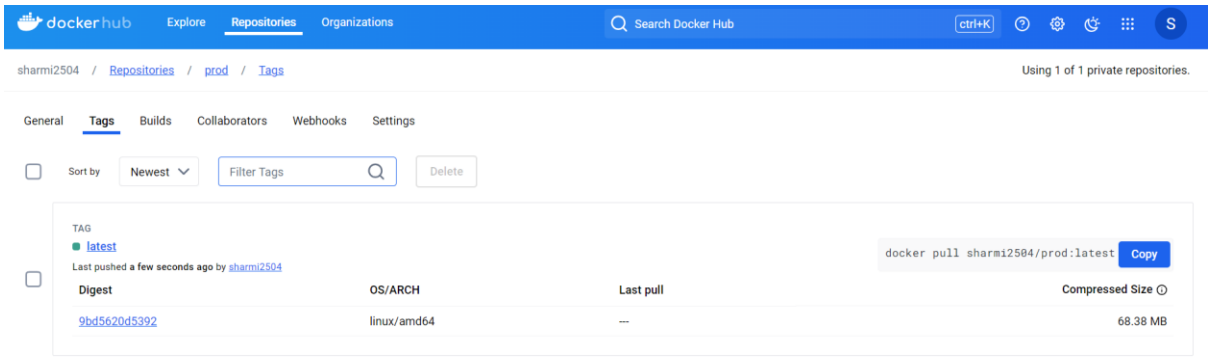
Image pushed to dev repo:



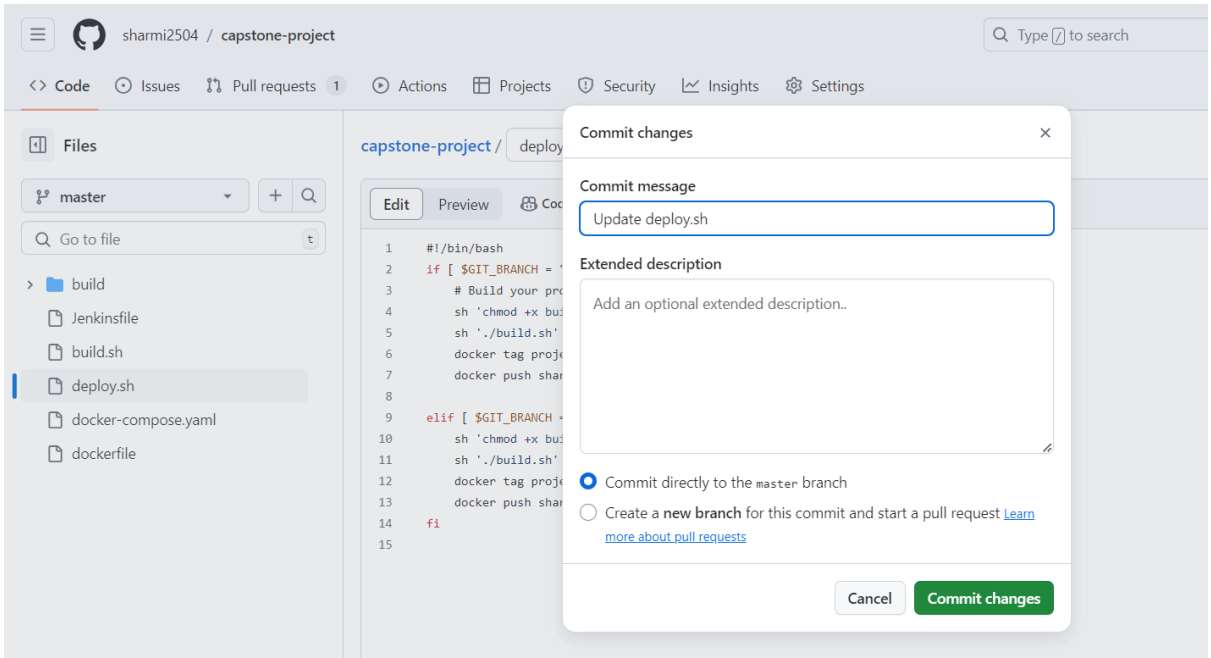

docker hub
Explore
Repositories
Organizations
Search Docker Hub
ctrl+K
S
sharmi2504
Search by repository name
All Content
Create repository
sharmi2504 / dev
Contains: Image • Last pushed: 3 minutes ago
0
0
Public
Scout inactive
sharmi2504 / prod
Contains: Image • Last pushed: 21 minutes ago
0
0
Private
Scout inactive
General
Tags
Builds
Collaborators
Webhooks
Settings
sharmi2504/dev
Updated 11 minutes ago
This repository does not have a description
INCOMPLETE
This repository does not have a category
INCOMPLETE
Tags
This repository contains 1 tag(s).
Tag
OS
Type
Pulled
Pushed
latest
Image
---
11 minutes ago
See all

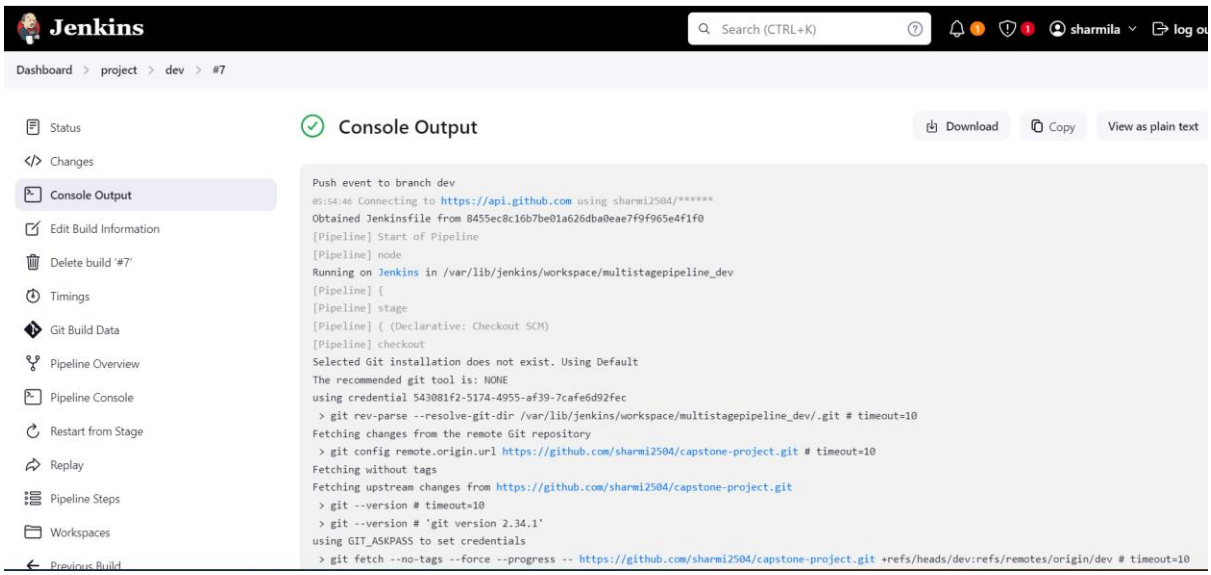

docker hub
Explore
Repositories
Organizations
Search Docker Hub
ctrl+K
sharmi2504 / Repositories / dev / latest
sharmi2504/dev:latest
MANIFEST DIGEST sha256:9bd5620d53927747ea0a6e2c080e1532fe3d3fc5c209b4d980247c0c4677367b
Delete Tag
OS/ARCH
linux/amd64
COMPRESSED SIZE
68.38 MB
LAST PUSHED
12 minutes ago by sharmi2504
TYPE
Image
MANIFEST DIGEST
sha256:9bd5620d...
Image Layers
Vulnerabilities
Image Layers
Command
1 ADD file ... in /
27.78 MB
ADD file:6c4730e7b12278bc7eb83b3b9d659437c92c42fc7ee70922ae8c4bebfb56a602 in /
2 CMD ["bash"]
0 B





When changes in prod branch ,Image pushed to prod repo:






```
using GIT_ASKPASS to set credentials
 > git fetch --no-tags --force --progress -- https://github.com/sharmi2504/capstone-project.git +refs/heads/dev:refs/remotes/origin/dev # timeout=10
Checking out Revision 8455ec8c16b7be01a626dba0eae7f9f965e4f1f0 (dev)
 > git config core.sparsecheckout # timeout=10
 > git checkout -f 8455ec8c16b7be01a626dba0eae7f9f965e4f1f0 # timeout=10
Commit message: "Update deploy.sh"
 > git rev-list --no-walk 6eeb011db9252b76f61f7ce33365e8ed5197d03e # timeout=10
[Pipeline] }
[Pipeline] // stage
[Pipeline] withEnv
[Pipeline] {
[Pipeline] stage
[Pipeline] { (changing the file permission)
[Pipeline] sh
+ chmod +x build.sh
[Pipeline] sh
+ chmod +x deploy.sh
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Build)
[Pipeline] script
[Pipeline] {
[Pipeline] sh
+ ./build.sh
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/
```

```
[Pipeline] {
[Pipeline] sh
+ ./build.sh
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  3.516MB

Step 1/5 : FROM nginx:latest
 ---> a72860cb95fd
Step 2/5 : WORKDIR /usr/share/nginx/html
 ---> Using cache
 ---> 834607514a93
Step 3/5 : COPY build/ .
 ---> Using cache
 ---> 3e67ce2f96b2
Step 4/5 : EXPOSE 80
 ---> Using cache
 ---> ae8d137bf4fa
Step 5/5 : CMD ["nginx", "-g", "daemon off;"]
 ---> Using cache
 ---> cd0340c4bf09
Successfully built cd0340c4bf09
Successfully tagged projectimage:latest
[Pipeline] sh
+ ./deploy.sh
WARNING! Using --password via the CLI is insecure. Use --password-stdin.
WARNING! Your password will be stored unencrypted in /var/lib/jenkins/.docker/config.json.
Configure a credential helper to remove this warning. See
```

```
WARNING! Your password will be stored unencrypted in /var/lib/jenkins/.docker/config.json.
Configure a credential helper to remove this warning. See
https://docs.docker.com/engine/reference/commandline/login/#credentials-store

Login Succeeded
sh: 0: cannot open chmod +x build.sh: No such file
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  3.516MB

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Step 4/5 : EXPOSE 80
 ---> Using cache
 ---> ae8d137bf4fa
Step 5/5 : CMD ["nginx", "-g", "daemon off;"]
 ---> Using cache
 ---> cd0340c4bf09
Successfully built cd0340c4bf09
Successfully tagged projectimage:latest
Using default tag: latest
```

```
Successfully tagged projectimage:latest
Using default tag: latest
The push refers to repository [docker.io/sharmi2504/dev]
a6883682415c: Preparing
60e72fbb314e: Preparing
599e8de62018: Preparing
09581b9299a2: Preparing
a39383416a22: Preparing
a6355e7844d5: Preparing
fcfa12460e7d: Preparing
e0781bc8667f: Preparing
e0781bc8667f: Waiting
a6355e7844d5: Waiting
fcfa12460e7d: Waiting
a39383416a22: Layer already exists
599e8de62018: Layer already exists
60e72fbb314e: Layer already exists
09581b9299a2: Layer already exists
a6883682415c: Layer already exists
e0781bc8667f: Layer already exists
a6355e7844d5: Layer already exists
fcfa12460e7d: Layer already exists
latest: digest: sha256:9bd5620d53927747ea0a6e2c080e1532fe3d3fc5c209b4d980247c0c4677367b size: 1988
[Pipeline] }
[Pipeline] // script
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Login)
```

```
fcfa12460e7d: Waiting
60e72fbb314e: Layer already exists
a39383416a22: Layer already exists
599e8de62018: Layer already exists
09581b9299a2: Layer already exists
a6883682415c: Layer already exists
fcfa12460e7d: Layer already exists
e0781bc8667f: Layer already exists
a6355e7844d5: Layer already exists
latest: digest: sha256:9bd5620d53927747ea0a6e2c080e1532fe3d3fc5c209b4d980247c0c4677367b size: 1988
[Pipeline] }
[Pipeline] // script
[Pipeline] }
[Pipeline] // stage
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // node
[Pipeline] End of Pipeline

GitHub has been notified of this commit’s build result

Finished: SUCCESS
```

General Tags Builds Collaborators Webhooks Settings

sharmi2504/dev

Updated 7 minutes ago

This repository does not have a description INCOMPLETE

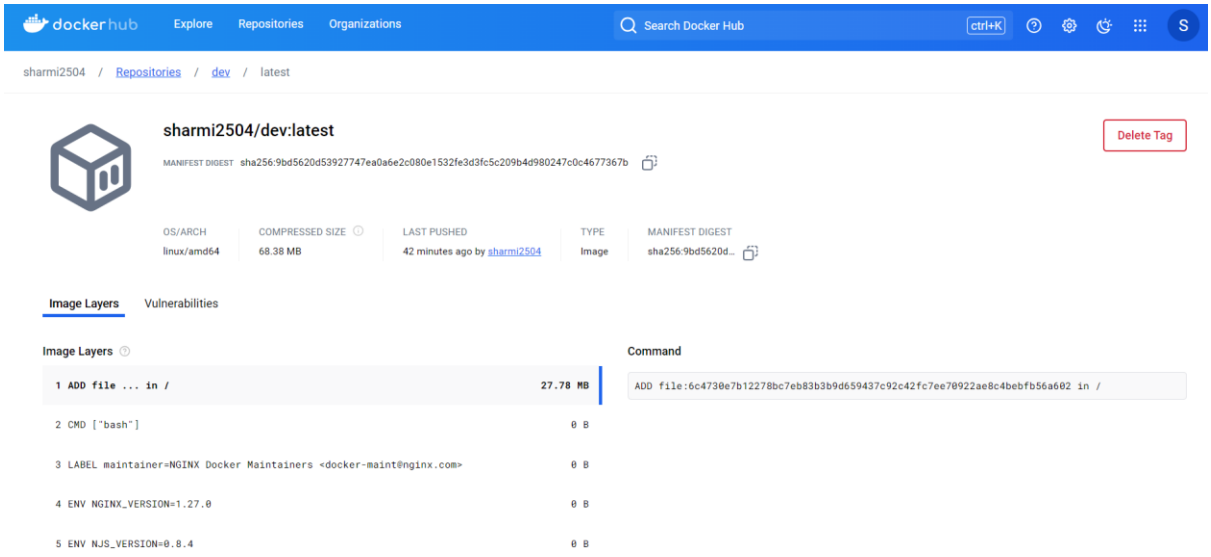
This repository does not have a category INCOMPLETE

Tags

This repository contains 1 tag(s).

Tag	OS	Type	Pulled	Pushed
latest		Image	---	7 minutes ago

See all



General Tags Builds Collaborators Webhooks Settings

sharmi2504/prod

Updated 12 minutes ago

This repository does not have a description

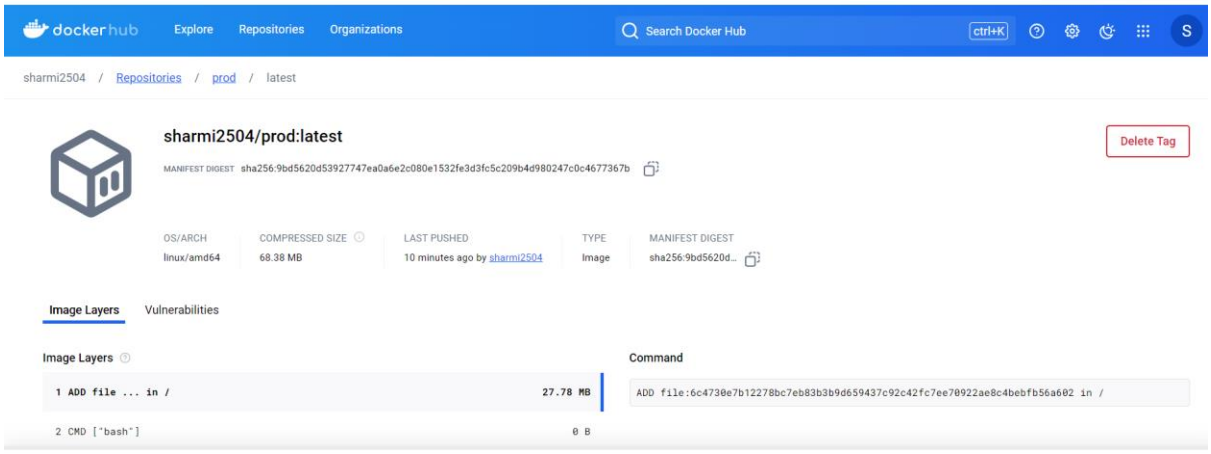
This repository does not have a category

Tags

This repository contains 1 tag(s).

Tag	OS	Type	Pulled	Pushed
latest		Image	---	12 minutes ago

See all



Monitoring:

Prometheus:

```
ubuntu@ip-172-31-46-99:~/capstone-project$ systemctl status prometheus
● prometheus.service - Prometheus
     Loaded: loaded (/etc/systemd/system/prometheus.service; enabled; vendor preset: enabled)
     Active: active (running) since Mon 2024-08-19 04:34:14 UTC; 1min 1s ago
   Main PID: 2182 (prometheus)
      Tasks: 6 (limit: 1120)
     Memory: 44.3M
        CPU: 157ms
     CGroup: /system.slice/prometheus.service
             └─2182 /usr/local/bin/prometheus --config.file /etc/prometheus/prometheus.yml --storage.tsdb.path /var/lib/prometheus/ --web.console.templates=/etc/p
```

Node exporter:

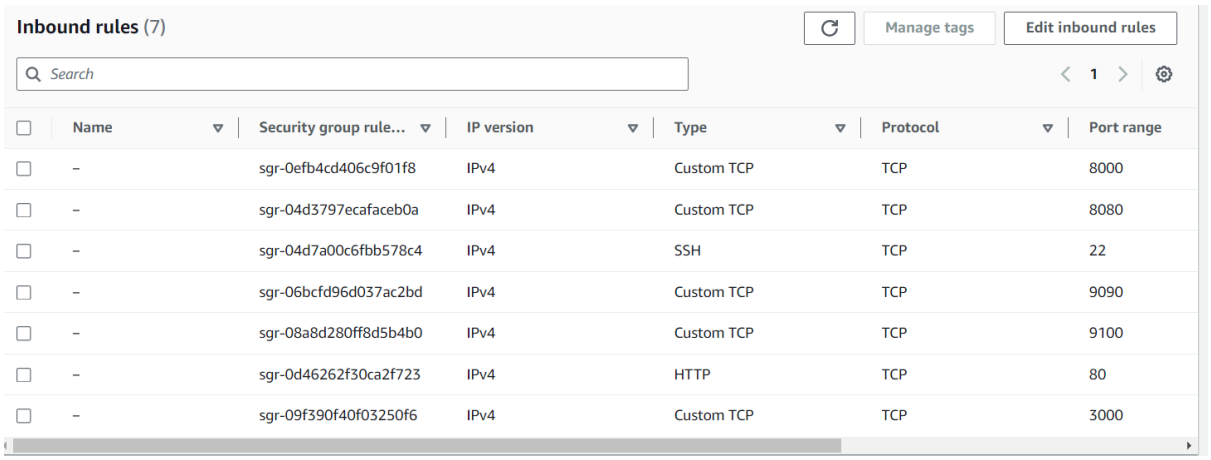
```
ubuntu@ip-172-31-46-99:~/capstone-project$ sudo systemctl status node_exporter
● node_exporter.service - Node Exporter
     Loaded: loaded (/etc/systemd/system/node_exporter.service; enabled; vendor preset: enabled)
     Active: active (running) since Mon 2024-08-19 04:40:08 UTC; 59s ago
   Main PID: 2483 (node_exporter)
      Tasks: 3 (limit: 1120)
     Memory: 2.0M
        CPU: 8ms
     CGroup: /system.slice/node_exporter.service
             └─2483 /usr/local/bin/node_exporter
```

Grafana:

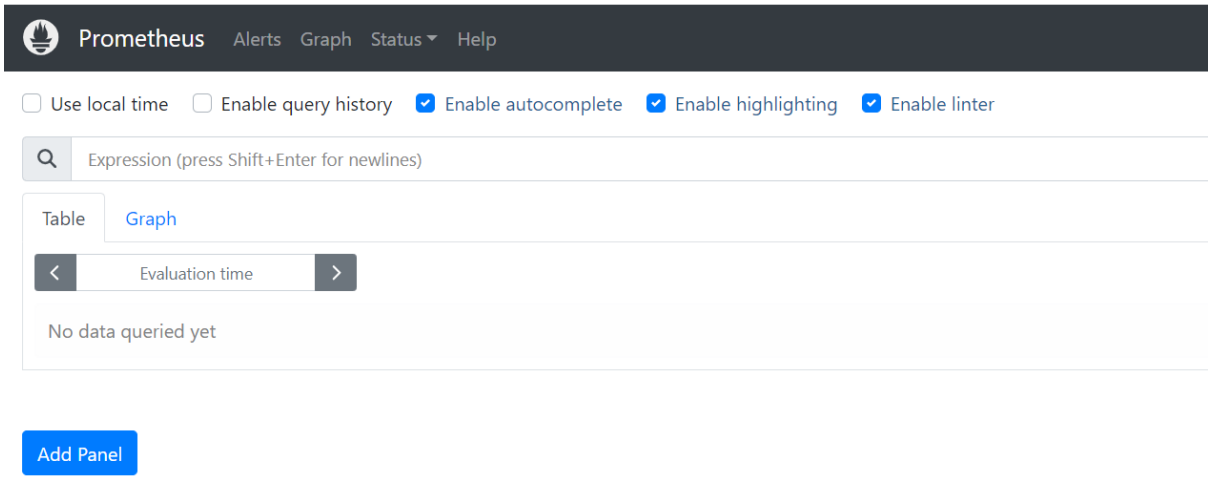
```
ubuntu@ip-172-31-46-99:~/capstone-project$ vi install-grafana.sh
ubuntu@ip-172-31-46-99:~/capstone-project$ chmod 777 install-grafana.sh
ubuntu@ip-172-31-46-99:~/capstone-project$ sudo ./install-grafana.sh
```

```
ubuntu@ip-172-31-46-99:~/capstone-project$ sudo systemctl status grafana-server
● grafana-server.service - Grafana instance
     Loaded: loaded (/lib/systemd/system/grafana-server.service; enabled; vendor preset: enabled)
     Active: active (running) since Mon 2024-08-19 04:44:10 UTC; 1min 3s ago
       Docs: http://docs.grafana.org
   Main PID: 3396 (grafana)
      Tasks: 9 (limit: 1120)
     Memory: 150.9M
        CPU: 2.884s
     CGroup: /system.slice/grafana-server.service
             └─3396 /usr/share/grafana/bin/grafana server --config=/etc/grafana/grafana.ini --pidfile=/r
```

Open all ports:



Name	Security group rule...	IP version	Type	Protocol	Port range
-	sgr-0efb4cd406c9f01f8	IPv4	Custom TCP	TCP	8000
-	sgr-04d3797ecafaceb0a	IPv4	Custom TCP	TCP	8080
-	sgr-04d7a00c6fbb578c4	IPv4	SSH	TCP	22
-	sgr-06bcfd96d037ac2bd	IPv4	Custom TCP	TCP	9090
-	sgr-08a8d280ff8d5b4b0	IPv4	Custom TCP	TCP	9100
-	sgr-0d46262f30ca2f723	IPv4	HTTP	TCP	80
-	sgr-09f390f40f03250f6	IPv4	Custom TCP	TCP	3000

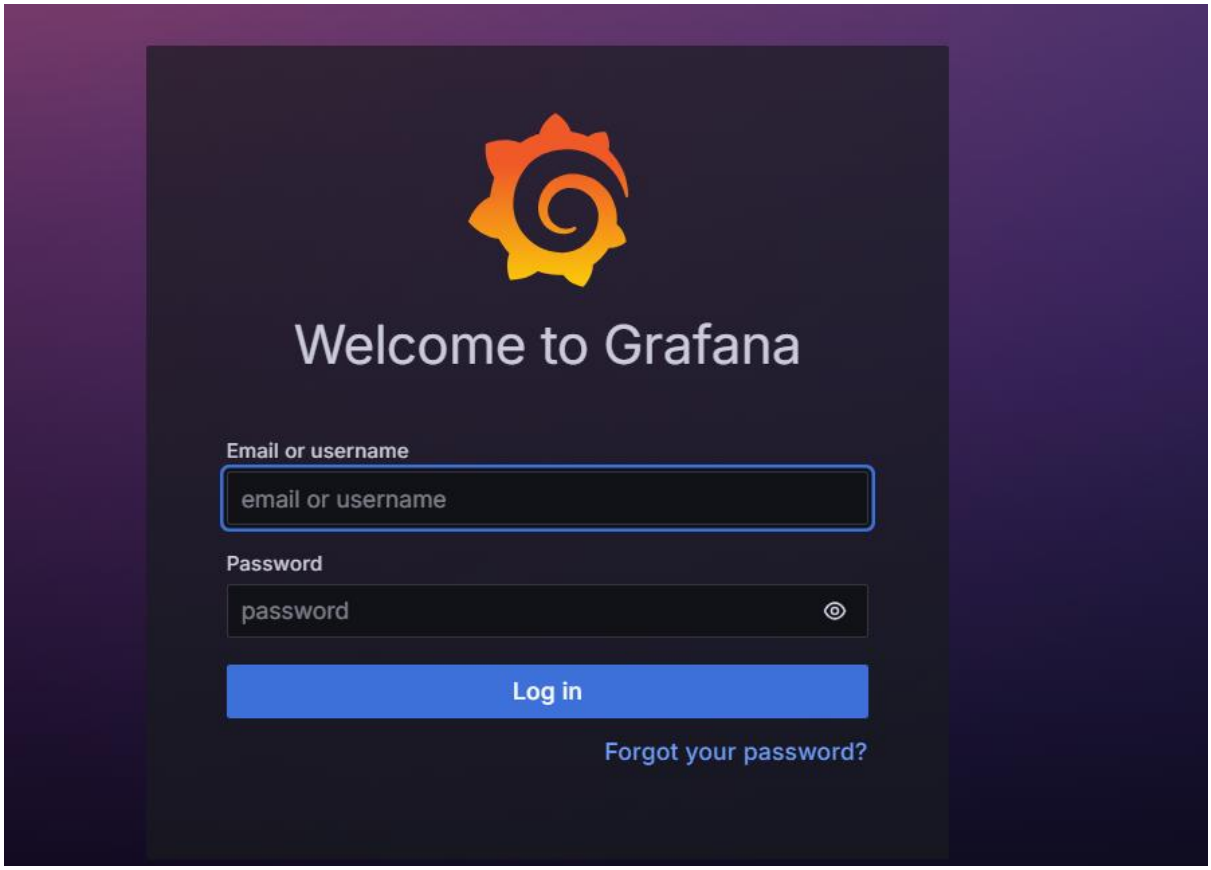


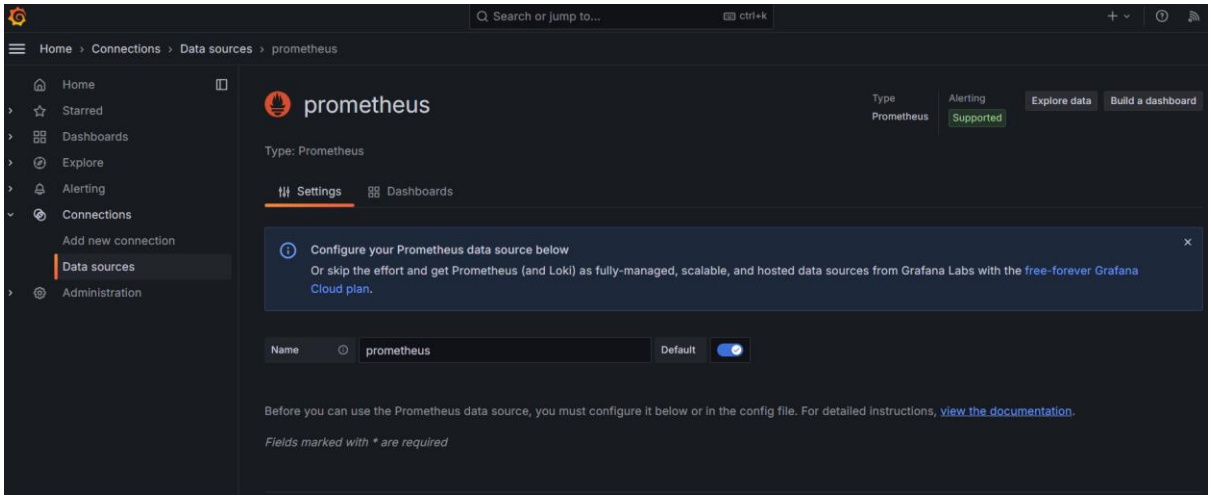
Node Exporter

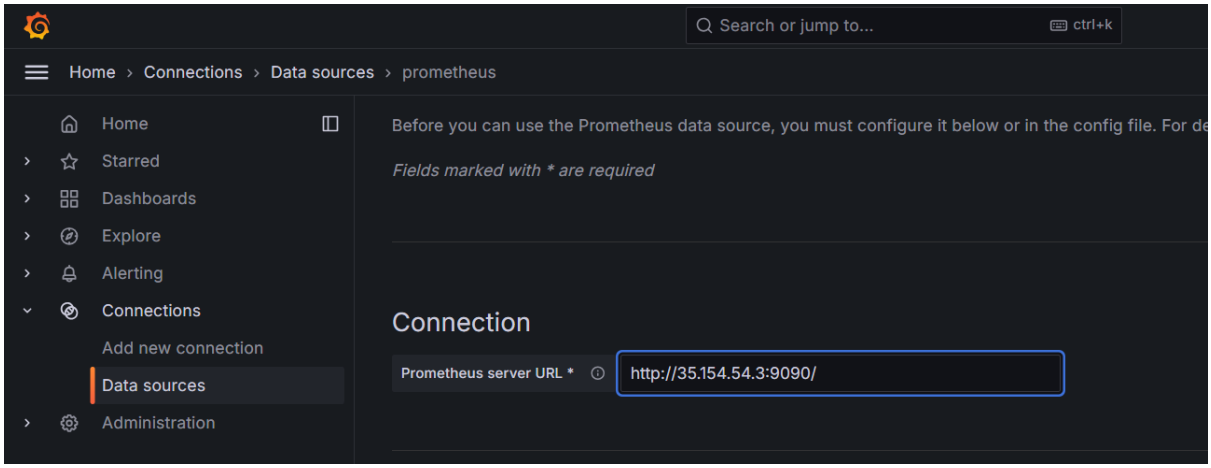
Prometheus Node Exporter

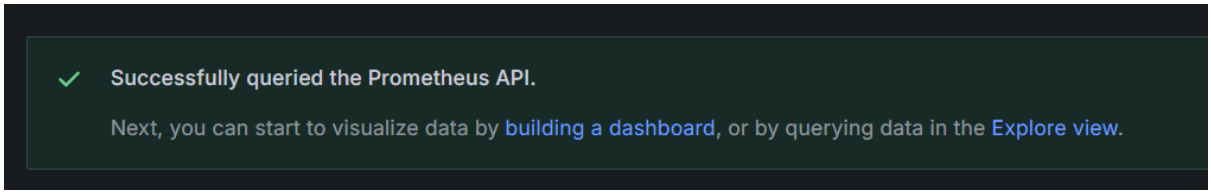
Version: (version=1.8.1, branch=HEAD, revision=400c3979931613db930ea035f39ce7b377cdbb5b)

- Metrics

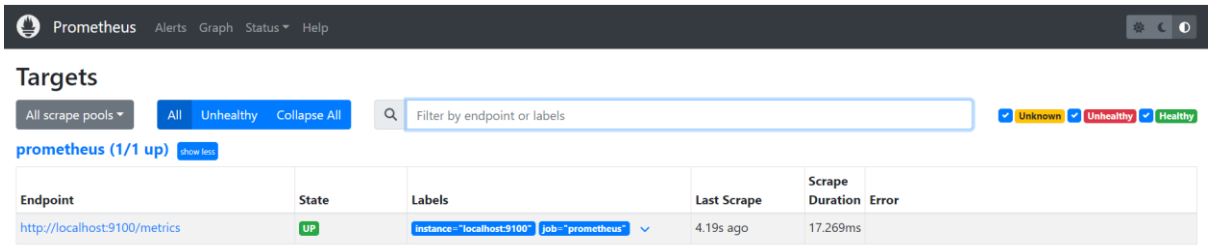

Welcome to Grafana
Email or username
email or username
Password
password
Log in
Forgot your password?

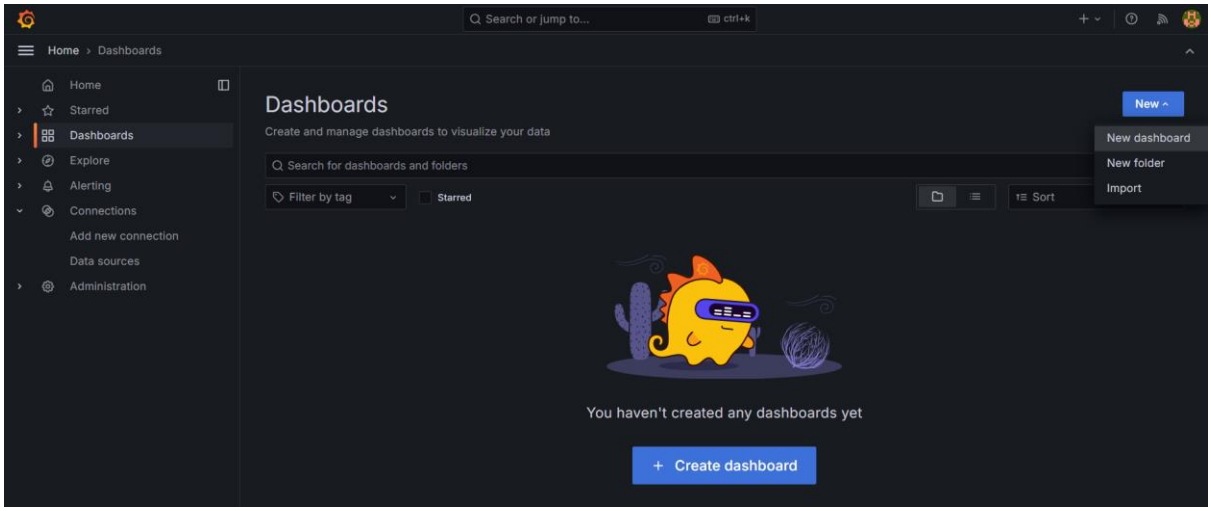

Search or jump to... ctrl+k
Home › Connections › Data sources › prometheus
Home
Starred
Dashboards
Explore
Alerting
Connections
Add new connection
Data sources
Administration
prometheus
Type: Prometheus
Type
Prometheus
Alerting
Supported
Explore data
Build a dashboard
Settings
Dashboards
Configure your Prometheus data source below
Or skip the effort and get Prometheus (and Loki) as fully-managed, scalable, and hosted data sources from Grafana Labs with the free-forever Grafana Cloud plan.
Name
prometheus
Default
Before you can use the Prometheus data source, you must configure it below or in the config file. For detailed instructions, view the documentation.
Fields marked with * are required

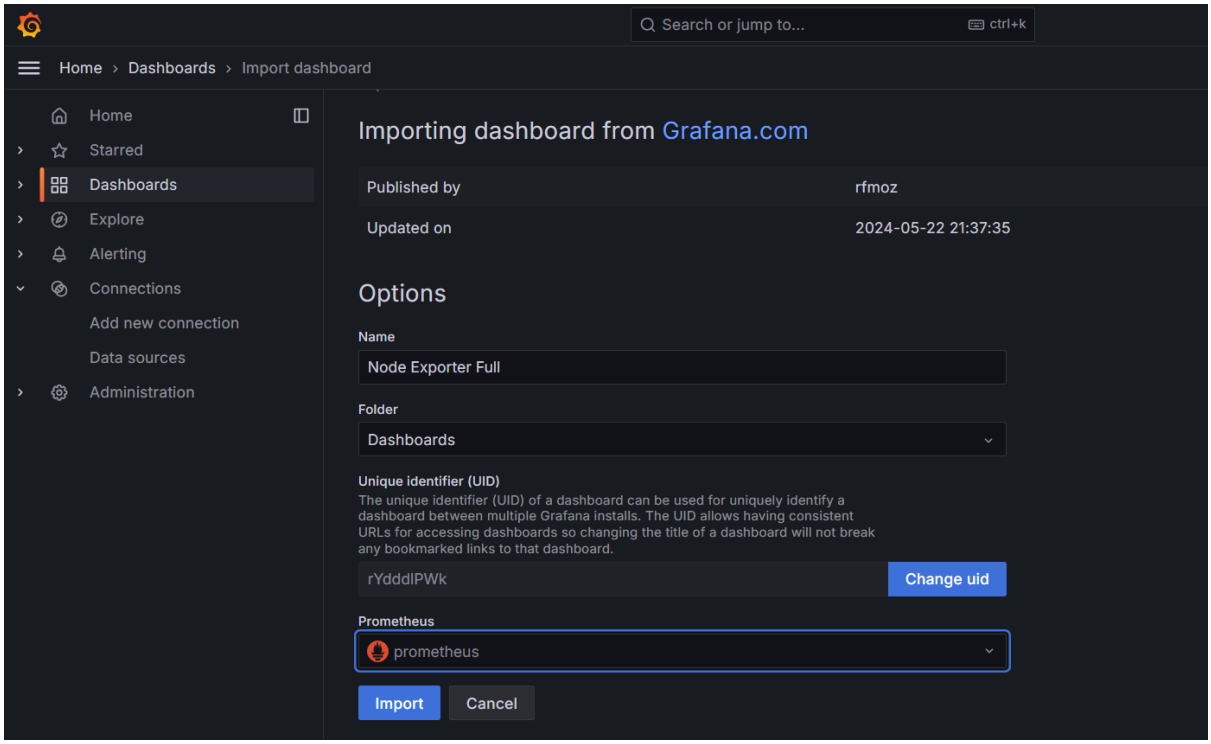

Search or jump to... ctrl+k
Home › Connections › Data sources › prometheus
Home
Starred
Dashboards
Explore
Alerting
Connections
Add new connection
Data sources
Administration
Before you can use the Prometheus data source, you must configure it below or in the config file. For de
Fields marked with * are required
Connection
Prometheus server URL *
http://35.154.54.3:9090/

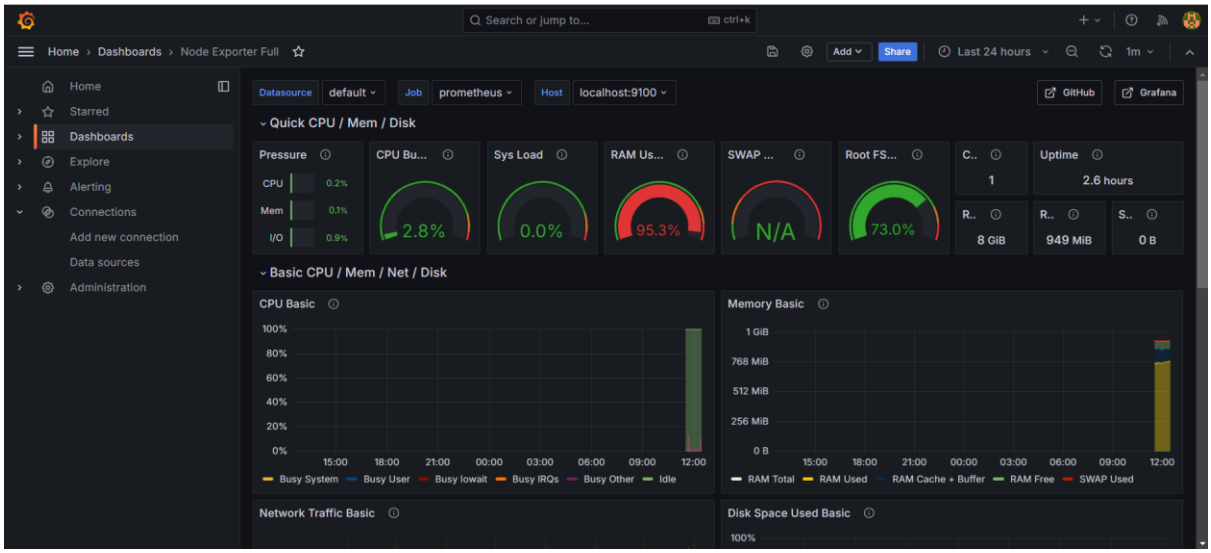


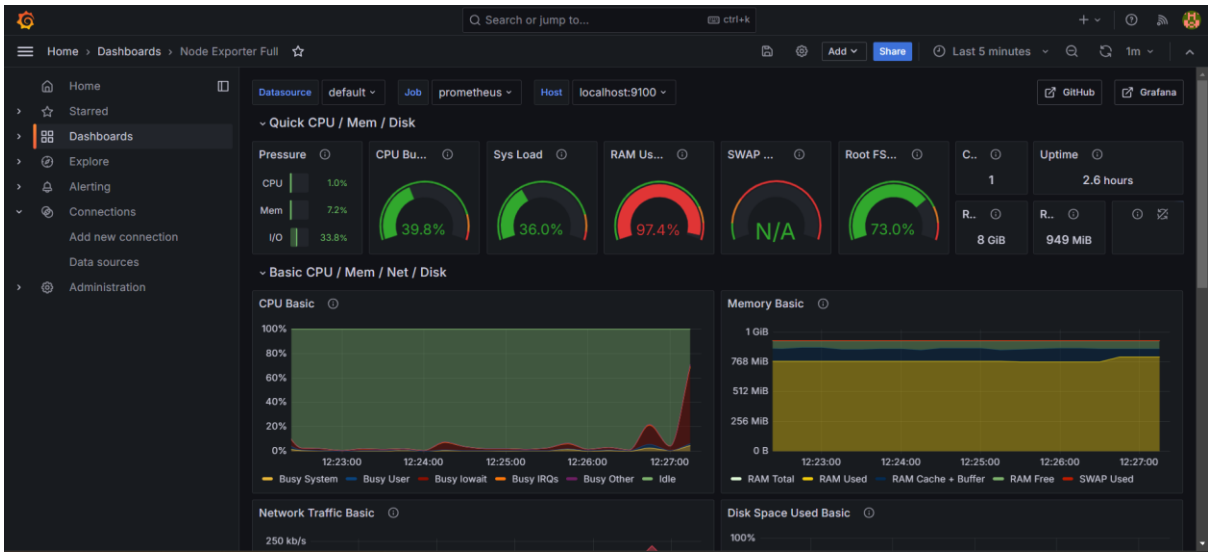

```yaml
scrape_configs:
  # The job name is added as a label `job=<job_name>` to any timeseries scraped from this config.
  - job_name: "prometheus"

    # metrics_path defaults to '/metrics'
    # scheme defaults to 'http'.

    static_configs:
      - targets: ["localhost:9100"]
```






Search or jump to...
ctrl+k
Home › Dashboards › Import dashboard
Home
Starred
Dashboards
Explore
Alerting
Connections
Add new connection
Data sources
Administration
Importing dashboard from Grafana.com
Published by
rfmoz
Updated on
2024-05-22 21:37:35
Options
Name
Node Exporter Full
Folder
Dashboards
Unique identifier (UID)
The unique identifier (UID) of a dashboard can be used for uniquely identify a dashboard between multiple Grafana installs. The UID allows having consistent URLs for accessing dashboards so changing the title of a dashboard will not break any bookmarked links to that dashboard.
rYdddlPWk
Change uid
Prometheus
prometheus
Import
Cancel


Search or jump to...
Home › Dashboards › Node Exporter Full
Add
Share
Last 24 hours
1m
Home
Starred
Dashboards
Explore
Alerting
Connections
Add new connection
Data sources
Administration
Datasource
default
Job
prometheus
Host
localhost:9100
GitHub
Grafana
Quick CPU / Mem / Disk
Pressure
CPU
0.2%
Mem
0.1%
I/O
0.9%
CPU Bu...
2.8%
Sys Load
0.0%
RAM Us...
95.3%
SWAP ...
N/A
Root FS...
73.0%
C..
1
Uptime
2.6 hours
R..
8 GiB
R..
949 MiB
S..
0 B
Basic CPU / Mem / Net / Disk
CPU Basic
100%
80%
60%
40%
20%
0%
15:00
18:00
21:00
00:00
03:00
06:00
09:00
12:00
Busy System
Busy User
Busy Iowait
Busy IRQs
Busy Other
Idle
Memory Basic
1 GiB
768 MiB
512 MiB
256 MiB
0 B
RAM Total
RAM Used
RAM Cache + Buffer
RAM Free
SWAP Used
Network Traffic Basic
Disk Space Used Basic
100%


Search or jump to...
Home › Dashboards › Node Exporter Full
Add
Share
Last 5 minutes
1m
Home
Starred
Dashboards
Explore
Alerting
Connections
Add new connection
Data sources
Administration
Datasource
default
Job
prometheus
Host
localhost:9100
GitHub
Grafana
Quick CPU / Mem / Disk
Pressure
CPU
1.0%
Mem
7.2%
I/O
33.8%
CPU Bu...
39.8%
Sys Load
36.0%
RAM Us...
97.4%
SWAP ...
N/A
Root FS...
73.0%
C..
1
Uptime
2.6 hours
R..
8 GiB
R..
949 MiB
Basic CPU / Mem / Net / Disk
CPU Basic
100%
80%
60%
40%
20%
0%
12:23:00
12:24:00
12:25:00
12:26:00
12:27:00
Busy System
Busy User
Busy Iowait
Busy IRQs
Busy Other
Idle
Memory Basic
1 GiB
768 MiB
512 MiB
256 MiB
0 B
RAM Total
RAM Used
RAM Cache + Buffer
RAM Free
SWAP Used
Network Traffic Basic
250 kb/s
Disk Space Used Basic
100%