

01) What is Jenkins used for?

Jenkins is a software automation tool that DevOps Use to implement CI/CD Workflow(run tests ,build , deploy and publish artifacts)

02) What is Jenkins agent? What is Jenkins executor (Build Executor)?

Jenkins agent is worker node that execute the job assigned to it

Jenkins executor is one of basic building block which allow build to run on worker node

03) Explain Jenkins master-slave architecture?

Master : master node that control all workflow like scheduling ,assign jobs to worker node

Slave: slave nodes or agent is a worker node that execute the jobs assigned to it

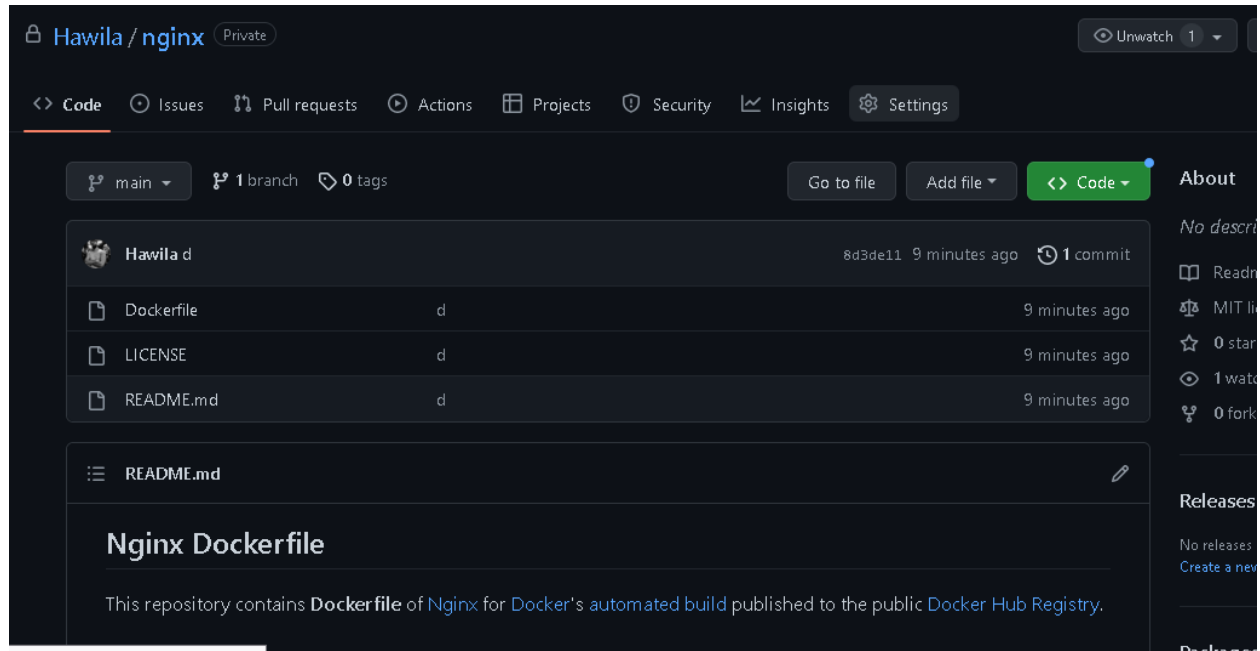
04) Install jenkins with docker image.

The screenshot shows the Jenkins Dashboard in a web browser at localhost:8080. The dashboard includes a sidebar with links to New Item, People, Build History, Manage Jenkins, and My Views. The main content area displays 'Welcome to Jenkins!' and a message about setting up distributed builds. A terminal window is overlaid on the dashboard, showing the command to run Jenkins in a Docker container and the resulting output, including the container ID, image, command, and status.

```
hawila@localhost:~$ sudo docker run -p 8080:8080 -p 50000:50000 -d -v jenkins_home:/var/jenkins_home jenkins/jenkins:lts
[sudo] password for hawila:
0c677691b88141a6a715ff2b2bd415e6c7694b2453e0feea7abd2be668b9a269
[hawila@localhost ~]$ docker ps
CONTAINER ID   IMAGE                                COMMAND                  CREATED        STATUS        PORTS
0c677691b881   jenkins/jenkins:lts                "/usr/bin/tini -- /u..." 8 seconds ago  Up 6 seconds  0.0.0.0:8080->8080/tcp, :::8080->8080/tcp, 0.0.0.0:50000->50000/tcp, :::50000->50000/tcp
[hawila@localhost ~]$
```

05) Create free style project and link it to private git repo containing any dockerfile then build an image from this dockerfile and push it to private docker repo

1- priv repo



2- secret cred



3-priv docker

GeneralTagsBuildsCollaboratorsWebhooksSettings

🔒

hawila / priv-lab1

Description

This repository does not have a description

🕒

Last pushed: a few seconds ago

Docker commands

To push a new tag to this repository,

docker push hawila/priv-lab1:tagname

Tags

VULNERABILITY SCANNING - DISABLED

Enable

This repository is empty. When it's not empty, you'll see a list of the most recent tags here.

Automated Builds

Manually pushing images to Hub? Connect your account to GitHub or Bitbucket to automatically build and tag new Images whenever your code is updated, so you can focus your time on creating.

Available with Pro, Team and Business subscriptions.

Upgrade

Learn more

4-build steps

GeneralSource Code ManagementBuild TriggersBuild EnvironmentBuild StepsPost-build Actions

Build Steps

Execute shell

Command

See the list of available environment variables

docker build -t=hawila/priv-lab1:1

docker login -u \$USER -p \$PASSWORD

docker push hawila/priv-lab1:1

Exit code to set build unstable

5- perm

```
[hawila@localhost ~]$ docker run -p 8080:8080 -p 50000:50000 -d \
-v jenkins_home:/var/jenkins_home \
-v /var/run/docker.sock:/var/run/docker.sock \
-v $(which docker):/usr/bin/docker jenkins/jenkins:lts
b6f38df0cfc704e31f84cf7fd305e1f0871da2ecb6436080c3d2db2bb7a23048
[hawila@localhost ~]$ docker ps -a
```

CONTAINER ID	IMAGE	COMMAND	NAMES	CREATED	STATUS	PORTS
b6f38df0cfc7	jenkins/jenkins:lts	"/usr/bin/tini -- /u..."	elated_noyce	4 seconds ago	Up 1 second	0.0.0.0:8080->8080/tcp, :::8080->8080/tcp, 0.0.0.0:50000->50000/tcp, :::50000->50000/tcp

```
[hawila@localhost ~]$ docker exec -u 0 -it b6f38df0cfc7 bash
root@b6f38df0cfc7:/# chmod 666 /var/run/docker.sock
```

6-build fails

⊗

#3

Jan 30, 2023, 6:58 PM

⊗


#2


Jan 30, 2023, 6:49 PM

⊗

#1

Jan 30, 2023, 6:09 PM

 [Atom feed for all](#)

 [Atom feed for failures](#)

I fixed the first 2 build but I couldn't fix this error (im using Jenkins as docker container on centos 9 stream

```
using credential token-github
> git rev-parse --resolve-git-dir /var/jenkins_home/workspace/lab1/.git # timeout=10
Fetching changes from the remote Git repository
> git config remote.origin.url https://github.com/Hawila/nginx.git # timeout=10
Fetching upstream changes from https://github.com/Hawila/nginx.git
> git --version # timeout=10
> git --version # 'git version 2.30.2'
using GIT_ASKPASS to set credentials
> git fetch --tags --force --progress -- https://github.com/Hawila/nginx.git +refs/heads/*:refs/remotes/origin/* # timeout=10
Seen branch in repository origin/main
Seen 1 remote branch
> git show-ref --tags -d # timeout=10
Checking out Revision 8d3de11f41e541b99f4a0a5e401e6303085ad87f (origin/main)
> git config core.sparsecheckout # timeout=10
> git checkout -f 8d3de11f41e541b99f4a0a5e401e6303085ad87f # timeout=10
Commit message: "d"
> git rev-list --no-walk 8d3de11f41e541b99f4a0a5e401e6303085ad87f # timeout=10
[lab1] $ /bin/sh -xe /tmp/jenkins25803543453830062.sh
+ docker build -t=hawila/priv-lab1:1
docker: /lib/x86_64-linux-gnu/libc.so.6: version 'GLIBC_2.32' not found (required by docker)
docker: /lib/x86_64-linux-gnu/libc.so.6: version 'GLIBC_2.34' not found (required by docker)
Build step 'Execute shell' marked build as failure
Finished: FAILURE
```

)