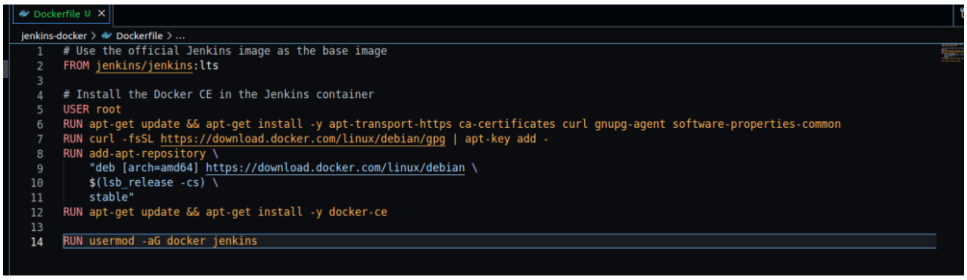
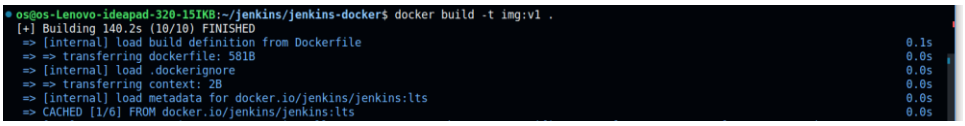
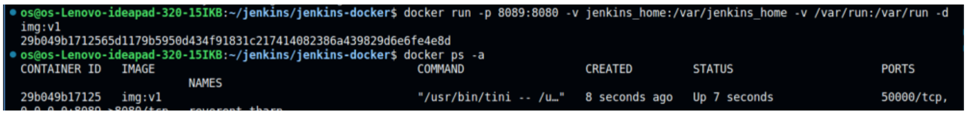
4- configure jenkins image to run docker commands on your host docker daemon



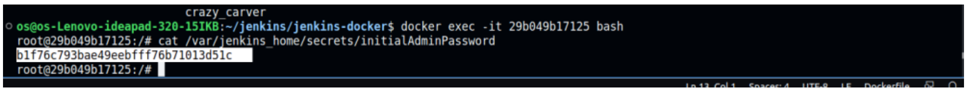
```
# Use the official Jenkins image as the base image
FROM jenkins/jenkins:lts

# Install the Docker CE in the Jenkins container
USER root
RUN apt-get update && apt-get install -y apt-transport-https ca-certificates curl gnupg-agent software-properties-common
RUN curl -fsSL https://download.docker.com/linux/debian/gpg | apt-key add -
RUN add-apt-repository \
    "deb [arch=amd64] https://download.docker.com/linux/debian \
    $(lsb_release -cs) \
    stable"
RUN apt-get update && apt-get install -y docker-ce

RUN usermod -aG docker jenkins
```



```
os@os-Lenovo-ideapad-320-15IKB:~/jenkins/jenkins-docker$ docker build -t img:v1 .
[+] Building 140.2s (10/10) FINISHED
 => [internal] load build definition from Dockerfile                                                  0.1s
 => => transferring dockerfile: 581B                                                                  0.0s
 => [internal] load .dockerignore                                                                     0.0s
 => => transferring context: 2B                                                                       0.0s
 => [internal] load metadata for docker.io/jenkins/jenkins:lts                                        0.0s
 => CACHED [1/6] FROM docker.io/jenkins/jenkins:lts                                                   0.0s
```

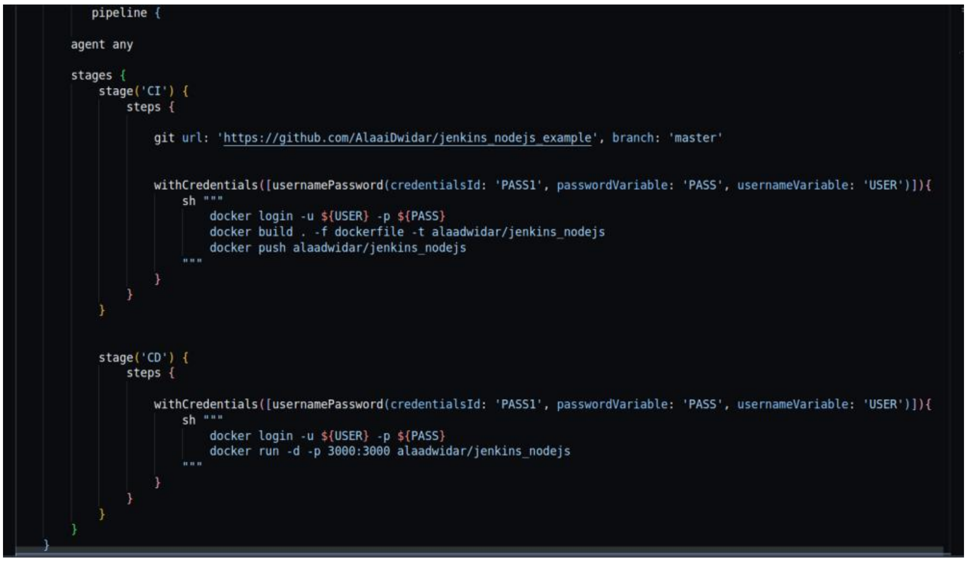


```
os@os-Lenovo-ideapad-320-15IKB:~/jenkins/jenkins-docker$ docker run -p 8089:8080 -v jenkins_home:/var/jenkins_home -v /var/run:/var/run -d
img:v1
29b049b1712565d1179b5950d434f91831c217414082386a439829d6e6fe4e8d
os@os-Lenovo-ideapad-320-15IKB:~/jenkins/jenkins-docker$ docker ps -a
CONTAINER ID   IMAGE                                    COMMAND                  CREATED         STATUS                    PORTS
                    NAMES
29b049b17125   img:v1                                   "/usr/bin/tini -- /u…"   8 seconds ago   Up 7 seconds              50000/tcp,
0.0.0.0:8089->8080/tcp   reverent_tharp
```

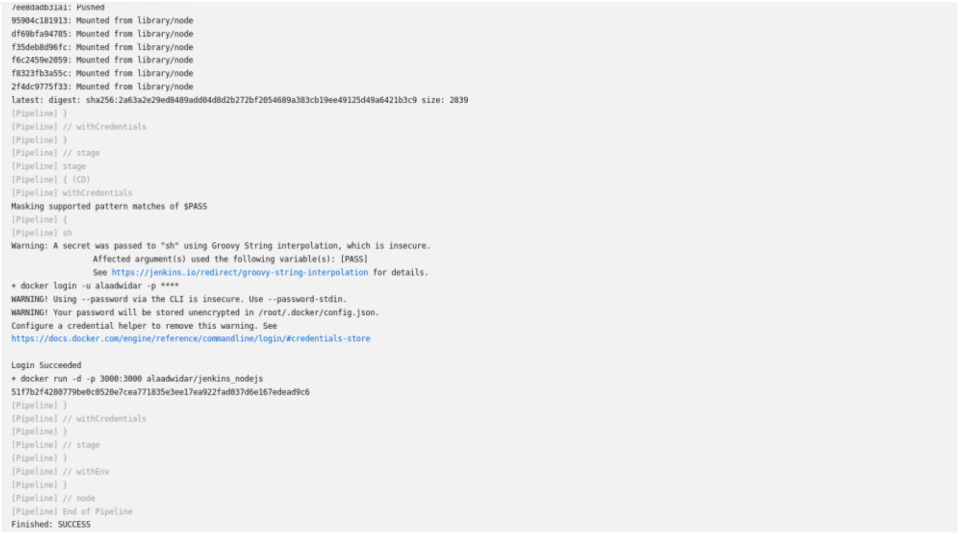


```
                    crazy_carver
os@os-Lenovo-ideapad-320-15IKB:~/jenkins/jenkins-docker$ docker exec -it 29b049b17125 bash
root@29b049b17125:/# cat /var/jenkins_home/secrets/initialAdminPassword
b1f76c793bae49eebfff76b71013d51c
root@29b049b17125:/#
```

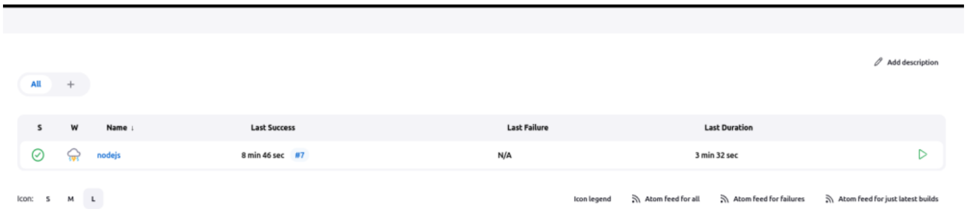
5- create CI/CD for this repo https://github.com/mahmoud254/jenkins_nodejs_example.git



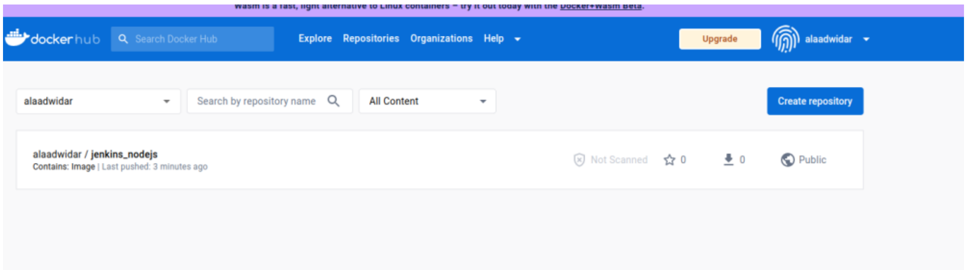
```
    pipeline {

agent any

stages {
    stage('CI') {
        steps {

            git url: 'https://github.com/AlaaiDwidar/jenkins_nodejs_example', branch: 'master'


            withCredentials([usernamePassword(credentialsId: 'PASS1', passwordVariable: 'PASS', usernameVariable: 'USER')]){
                sh """
                    docker login -u ${USER} -p ${PASS}
                    docker build . -f dockerfile -t alaadwidar/jenkins_nodejs
                    docker push alaadwidar/jenkins_nodejs
                """
            }
        }
    }


    stage('CD') {
        steps {

            withCredentials([usernamePassword(credentialsId: 'PASS1', passwordVariable: 'PASS', usernameVariable: 'USER')]){
                sh """
                    docker login -u ${USER} -p ${PASS}
                    docker run -d -p 3000:3000 alaadwidar/jenkins_nodejs
                """
            }
        }
    }
}
}
```



```
7ee8dadb31a1: Pushed
95904c181913: Mounted from library/node
df69bfa94785: Mounted from library/node
f35deb8d96fc: Mounted from library/node
f6c2459e2059: Mounted from library/node
f8323fb3a55c: Mounted from library/node
2f4dc9775f33: Mounted from library/node
latest: digest: sha256:2a63a2e29ed8489add04d8d2b272bf2054689a383cb19ee49125d49a6421b3c9 size: 2839
[Pipeline] }
[Pipeline] // withCredentials
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (CD)
[Pipeline] withCredentials
Masking supported pattern matches of $PASS
[Pipeline] {
[Pipeline] sh
Warning: A secret was passed to "sh" using Groovy String interpolation, which is insecure.
		 Affected argument(s) used the following variable(s): [PASS]
		 See https://jenkins.io/redirect/groovy-string-interpolation for details.
+ docker login -u alaadwidar -p ****
WARNING! Using --password via the CLI is insecure. Use --password-stdin.
WARNING! Your password will be stored unencrypted in /root/.docker/config.json.
Configure a credential helper to remove this warning. See
https://docs.docker.com/engine/reference/commandline/login/#credentials-store

Login Succeeded
+ docker run -d -p 3000:3000 alaadwidar/jenkins_nodejs
51f7b2f4280779be0c0520e7cea771835e3ee17ea922fad037d6e167edead9c6
[Pipeline] }
[Pipeline] // withCredentials
[Pipeline] }
[Pipeline] // stage
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // node
[Pipeline] End of Pipeline
Finished: SUCCESS
```



S	W	Name ↓	Last Success	Last Failure	Last Duration	
✓		nodejs	8 min 46 sec #7	N/A	3 min 32 sec	▷



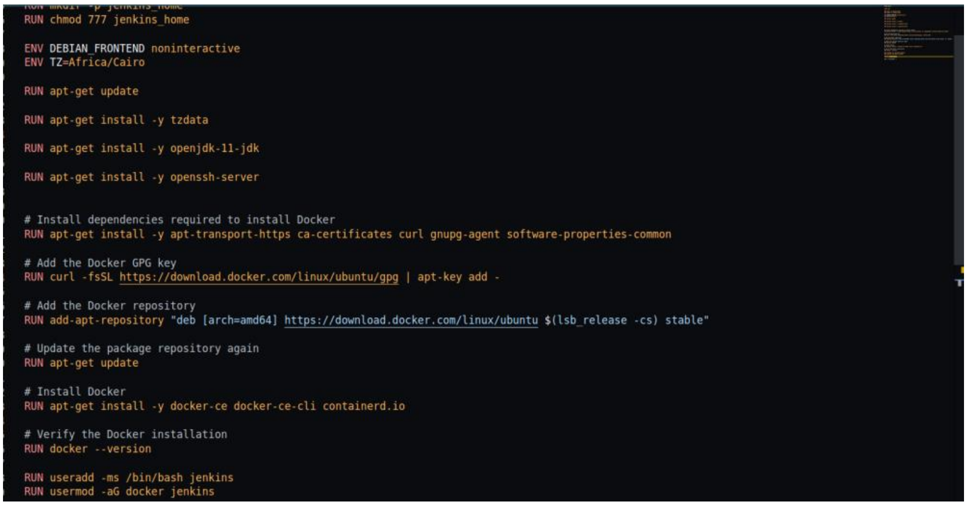
Wasm is a fast, light alternative to Linux containers – try it out today with the Docker+Wasm Beta.
docker hub
Search Docker Hub
Explore
Repositories
Organizations
Help
Upgrade
alaadwidar
alaadwidar
Search by repository name
All Content
Create repository

alaadwidar / jenkins_nodejs
Contains: Image | Last pushed: 3 minutes ago

Not Scanned ☆ 0 ⬇ 0 Public

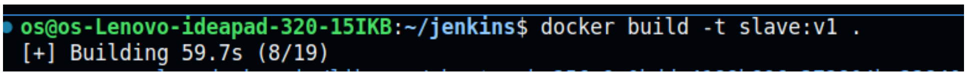
##################

1- create docker file to build image for jenkins slave

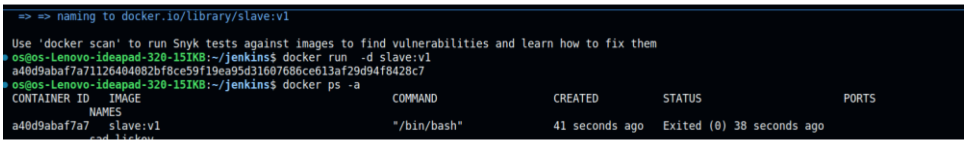


```
RUN mkdir -p jenkins_home
RUN chmod 777 jenkins_home

ENV DEBIAN_FRONTEND noninteractive
ENV TZ=Africa/Cairo

RUN apt-get update

RUN apt-get install -y tzdata

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

RUN apt-get install -y openssh-server

# Install dependencies required to install Docker
RUN apt-get install -y apt-transport-https ca-certificates curl gnupg-agent software-properties-common

# Add the Docker GPG key
RUN curl -fsSL https://download.docker.com/linux/ubuntu/gpg | apt-key add -

# Add the Docker repository
RUN add-apt-repository "deb [arch=amd64] https://download.docker.com/linux/ubuntu $(lsb_release -cs) stable"

# Update the package repository again
RUN apt-get update

# Install Docker
RUN apt-get install -y docker-ce docker-ce-cli containerd.io

# Verify the Docker installation
RUN docker --version

RUN useradd -ms /bin/bash jenkins
RUN usermod -aG docker jenkins
```

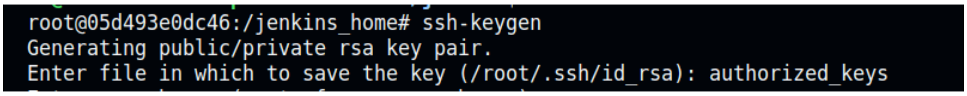
2- create container from this image and configure ssh



```
os@os-Lenovo-ideapad-320-15IKB:~/jenkins$ docker build -t slave:v1 .
[+] Building 59.7s (8/19)
```

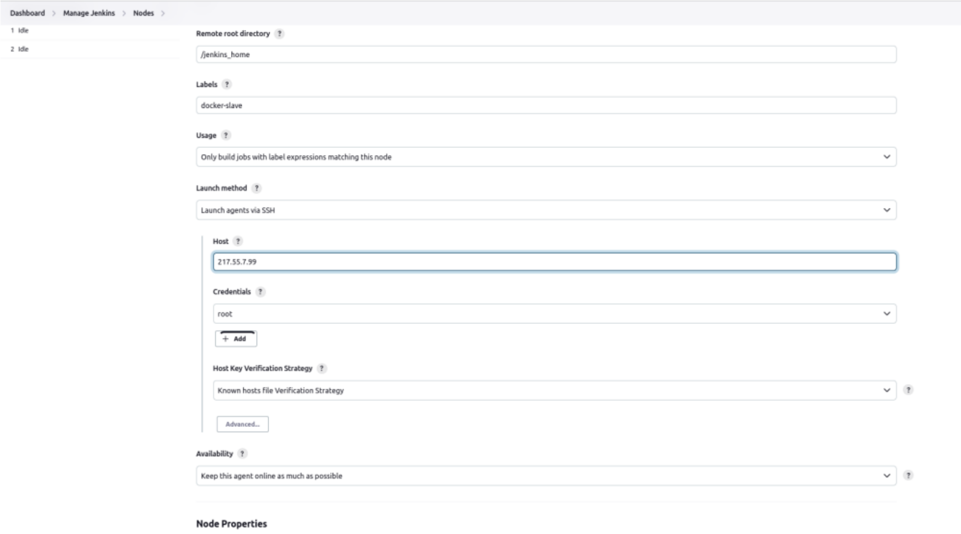


```
 => => naming to docker.io/library/slave:v1

Use 'docker scan' to run Snyk tests against images to find vulnerabilities and learn how to fix them
os@os-Lenovo-ideapad-320-15IKB:~/jenkins$ docker run  -d slave:v1
a40d9abaf7a71126404082bf8ce59f19ea95d31607686ce613af29d94f8428c7
os@os-Lenovo-ideapad-320-15IKB:~/jenkins$ docker ps -a
CONTAINER ID   IMAGE                                         COMMAND                  CREATED          STATUS                      PORTS
          NAMES
a40d9abaf7a7   slave:v1                                      "/bin/bash"              41 seconds ago   Exited (0) 38 seconds ago
          sad_liskov
```



```
root@05d493e0dc46:/jenkins_home# ssh-keygen
Generating public/private rsa key pair.
Enter file in which to save the key (/root/.ssh/id_rsa): authorized_keys
```

3 from jenkins master create new node with the slave container



Remote root directory ?
/jenkins_home

Labels ?
docker-slave

Usage ?
Only build jobs with label expressions matching this node

Launch method ?
Launch agents via SSH

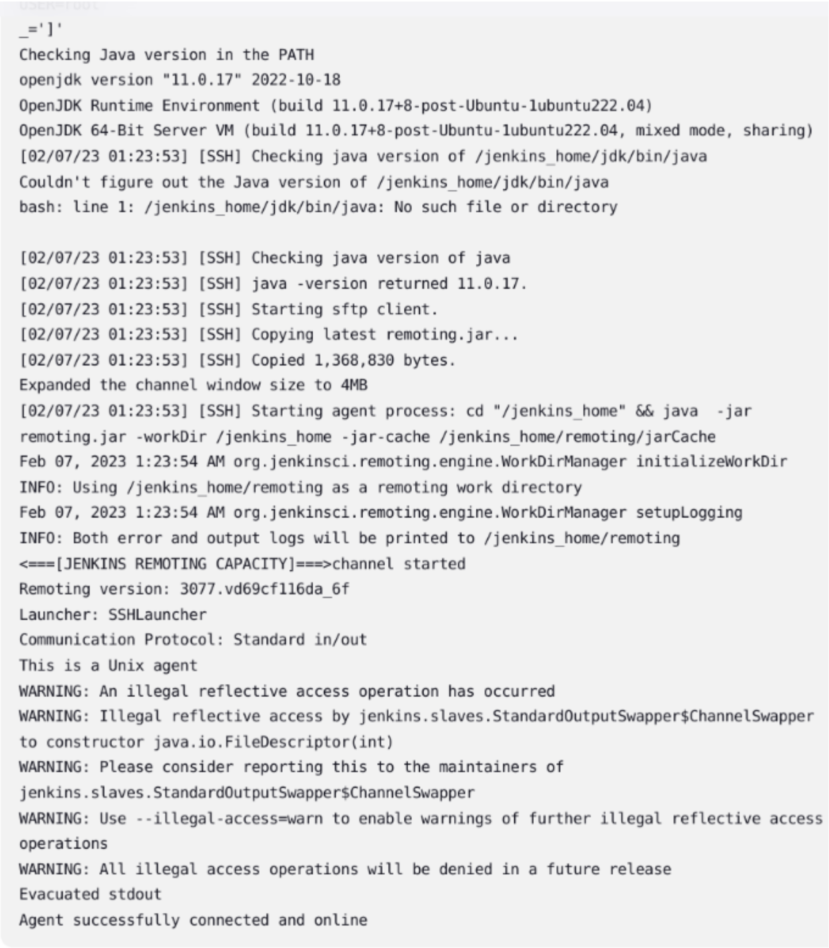
Host ?
217.55.7.99

Credentials ?
root

Host Key Verification Strategy ?
Known hosts File Verification Strategy

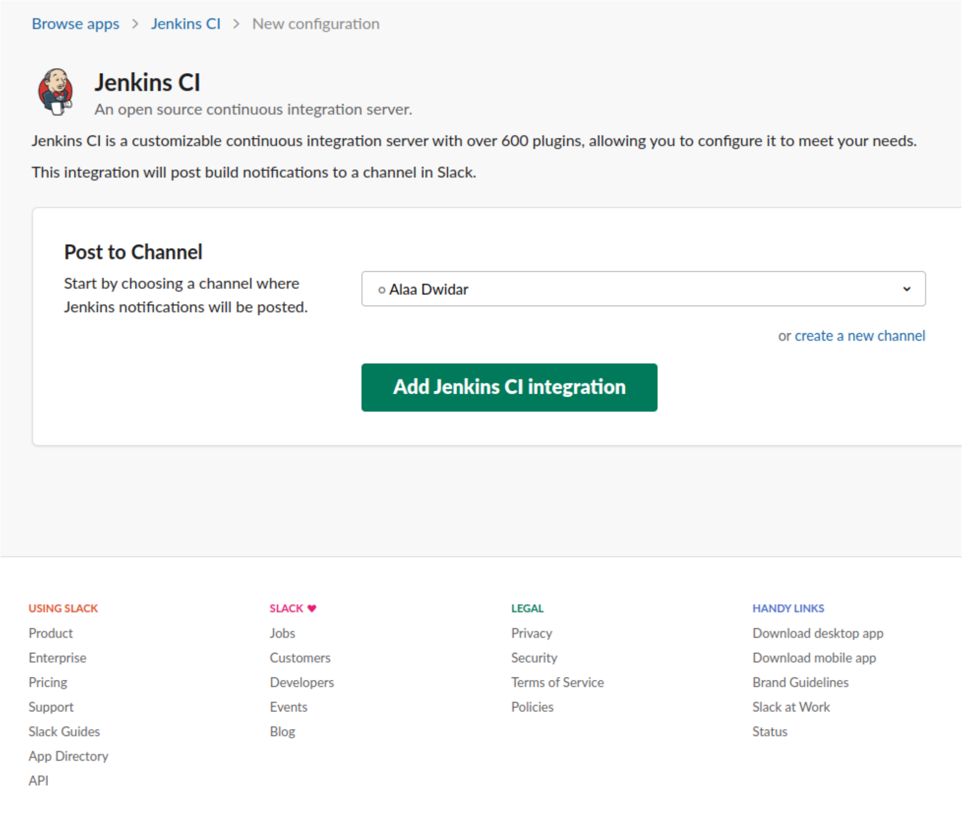
Availability ?
Keep this agent online as much as possible

Node Properties



```
USER=root
_=']'
Checking Java version in the PATH
openjdk version "11.0.17" 2022-10-18
OpenJDK Runtime Environment (build 11.0.17+8-post-Ubuntu-1ubuntu222.04)
OpenJDK 64-Bit Server VM (build 11.0.17+8-post-Ubuntu-1ubuntu222.04, mixed mode, sharing)
[02/07/23 01:23:53] [SSH] Checking java version of /jenkins_home/jdk/bin/java
Couldn't figure out the Java version of /jenkins_home/jdk/bin/java
bash: line 1: /jenkins_home/jdk/bin/java: No such file or directory

[02/07/23 01:23:53] [SSH] Checking java version of java
[02/07/23 01:23:53] [SSH] java -version returned 11.0.17.
[02/07/23 01:23:53] [SSH] Starting sftp client.
[02/07/23 01:23:53] [SSH] Copying latest remoting.jar...
[02/07/23 01:23:53] [SSH] Copied 1,368,830 bytes.
Expanded the channel window size to 4MB
[02/07/23 01:23:53] [SSH] Starting agent process: cd "/jenkins_home" && java  -jar
remoting.jar -workDir /jenkins_home -jar-cache /jenkins_home/remoting/jarCache
Feb 07, 2023 1:23:54 AM org.jenkinsci.remoting.engine.WorkDirManager initializeWorkDir
INFO: Using /jenkins_home/remoting as a remoting work directory
Feb 07, 2023 1:23:54 AM org.jenkinsci.remoting.engine.WorkDirManager setupLogging
INFO: Both error and output logs will be printed to /jenkins_home/remoting
<===[JENKINS REMOTING CAPACITY]===>channel started
Remoting version: 3077.vd69cf116da_6f
Launcher: SSHLauncher
Communication Protocol: Standard in/out
This is a Unix agent
WARNING: An illegal reflective access operation has occurred
WARNING: Illegal reflective access by jenkins.slaves.StandardOutputSwapper$ChannelSwapper
to constructor java.io.FileDescriptor(int)
WARNING: Please consider reporting this to the maintainers of
jenkins.slaves.StandardOutputSwapper$ChannelSwapper
WARNING: Use --illegal-access=warn to enable warnings of further illegal reflective access
operations
WARNING: All illegal access operations will be denied in a future release
Evacuated stdout
Agent successfully connected and online
```

4- integrate slack with jenkins



Jenkins CI

An open source continuous integration server.

Jenkins CI is a customizable continuous integration server with over 600 plugins, allowing you to configure it to meet your needs.

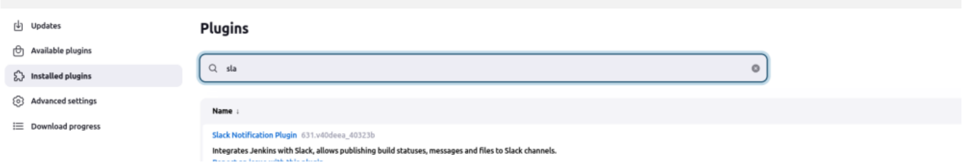
This integration will post build notifications to a channel in Slack.

Post to Channel

Start by choosing a channel where Jenkins notifications will be posted.

○ Alaa Dwidar

or create a new channel

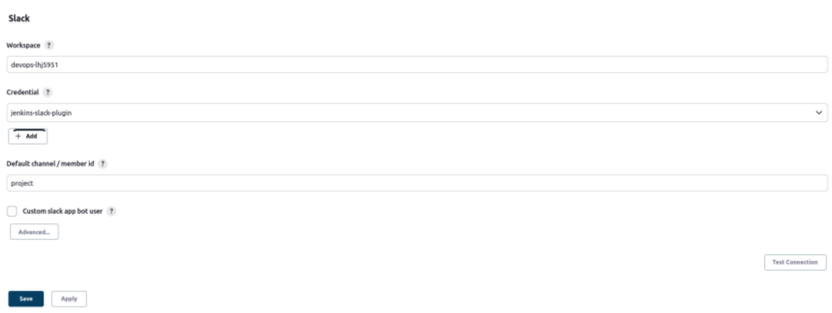


sla

Name ↓

Slack Notification Plugin 631.v40deea_40323b

Integrates Jenkins with Slack, allows publishing build statuses, messages and files to Slack channels.


Slack

Workspace ?

devops-lhj5951

Credential ?

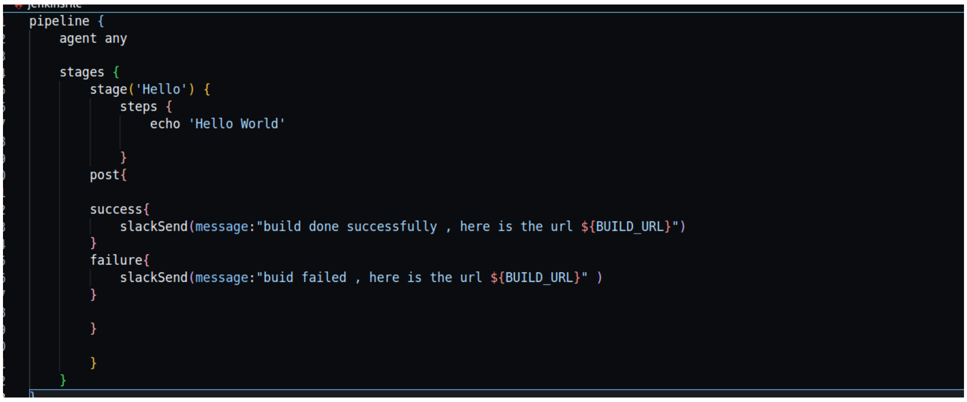
jenkins-slack-plugin

Default channel / member id ?

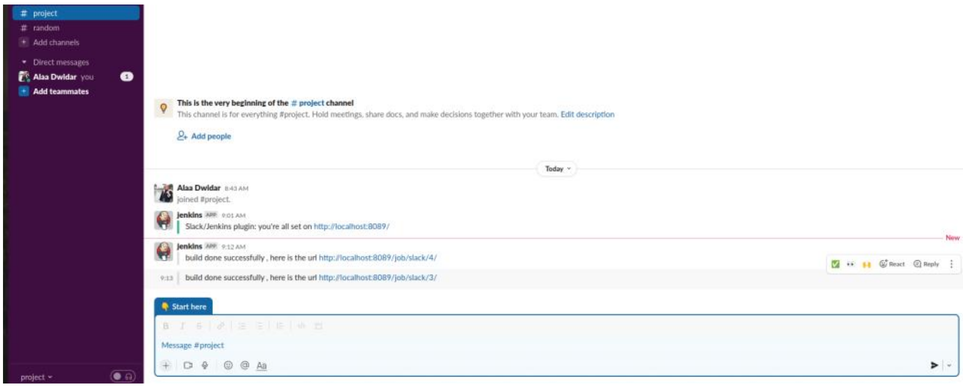
project

□ Custom slack app bot user ?

5- send slack message when stage in your pipeline is successful



```
pipeline {
    agent any

    stages {
        stage('Hello') {
            steps {
                echo 'Hello World'

            }
        post{

        success{
            slackSend(message:"build done successfully , here is the url ${BUILD_URL}")
        }
        failure{
            slackSend(message:"buid failed , here is the url ${BUILD_URL}" )
        }

        }

        }
    }
}
```



This is the very beginning of the # project channel
This channel is for everything #project. Hold meetings, share docs, and make decisions together with your team. Edit description

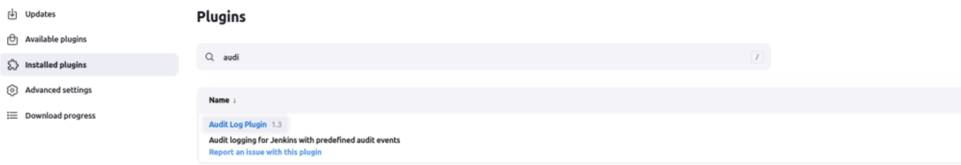
Alaa Dwidar 8:43 AM
joined #project.

jenkins APP 9:01 AM
Slack/Jenkins plugin: you're all set on http://localhost:8089/

jenkins APP 9:12 AM
build done successfully , here is the url http://localhost:8089/job/slack/4/

9:13 build done successfully , here is the url http://localhost:8089/job/slack/3/

6- install audit logs plugin and test it

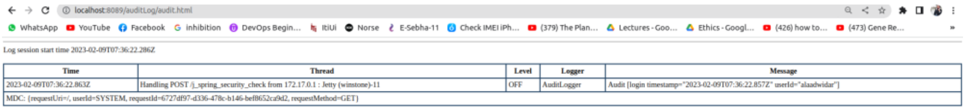


Plugins

audi

Name ↓

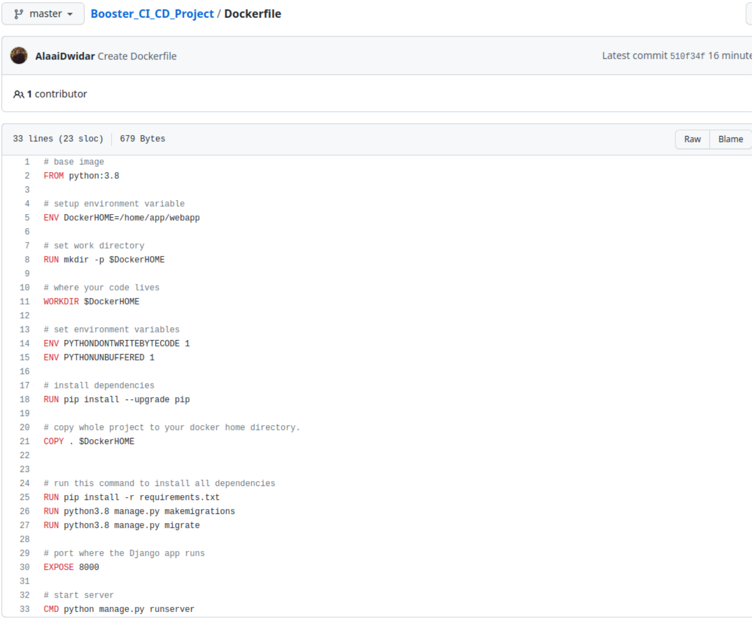
Audit Log Plugin 1.3
Audit logging for Jenkins with predefined audit events
Report an issue with this plugin



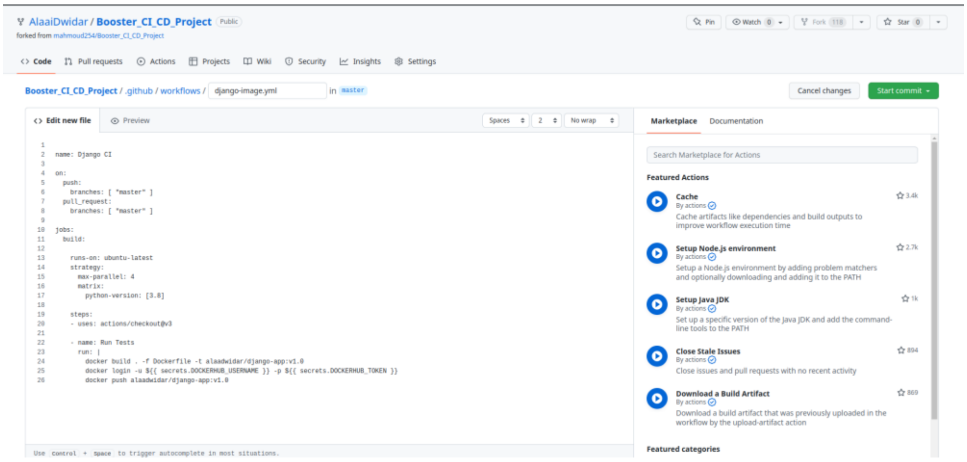
Log session start time 2023-02-09T07:36:22.286Z

Time	Thread	Level	Logger	Message
2023-02-09T07:36:22.863Z	Handling POST /j_spring_security_check from 172.17.0.1 : Jetty (winstone)-11	OFF	AuditLogger	Audit [login timestamp="2023-02-09T07:36:22.857Z" userId="alaadwidar"]
MDC: {requestUri=/, userId=SYSTEM, requestId=6727df97-d336-478c-b146-bef8652ca9d2, requestMethod=GET}				

7- fork the following repo https://github.com/mahmoud254/Booster_CI_CD_Project and add dockerfile to run this django app and use github actions to build the docker image and push it to your dockerhub


master
Booster_CI_CD_Project / Dockerfile
AlaaiDwidar Create Dockerfile
Latest commit 510f34f 16 minute
1 contributor
33 lines (23 sloc) | 679 Bytes
Raw
Blame

```
# base image
FROM python:3.8

# setup environment variable
ENV DockerHOME=/home/app/webapp

# set work directory
RUN mkdir -p $DockerHOME

# where your code lives
WORKDIR $DockerHOME

# set environment variables
ENV PYTHONDONTWRITEBYTECODE 1
ENV PYTHONUNBUFFERED 1

# install dependencies
RUN pip install --upgrade pip

# copy whole project to your docker home directory.
COPY . $DockerHOME


# run this command to install all dependencies
RUN pip install -r requirements.txt
RUN python3.8 manage.py makemigrations
RUN python3.8 manage.py migrate

# port where the Django app runs
EXPOSE 8000

# start server
CMD python manage.py runserver
```



Booster_CI_CD_Project / .github / workflows / django-image.yml in master

```

name: Django CI

on:
  push:
    branches: [ "master" ]
  pull_request:
    branches: [ "master" ]

jobs:
  build:

    runs-on: ubuntu-latest
    strategy:
      max-parallel: 4
      matrix:
        python-version: [3.8]

    steps:
    - uses: actions/checkout@v3

    - name: Run Tests
      run: |
        docker build . -f Dockerfile -t alaadwidar/django-app:v1.0
        docker login -u ${{ secrets.DOCKERHUB_USERNAME }} -p ${{ secrets.DOCKERHUB_TOKEN }}
        docker push alaadwidar/django-app:v1.0
```

Use control + space to trigger autocomplete in most situations.

Featured Actions

Cache ☆ 3.4k
By actions
Cache artifacts like dependencies and build outputs to improve workflow execution time

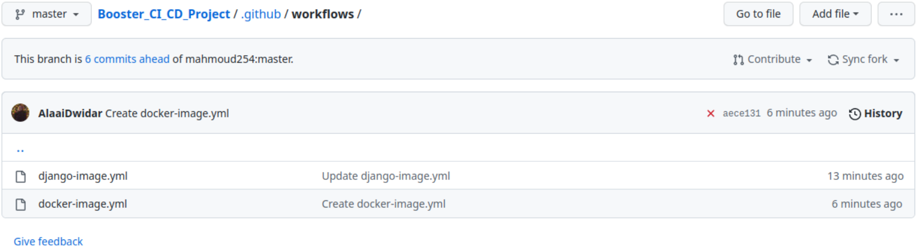
Setup Node.js environment ☆ 2.7k
By actions
Setup a Node.js environment by adding problem matchers and optionally downloading and adding it to the PATH

Setup Java JDK ☆ 1k
By actions
Set up a specific version of the Java JDK and add the command-line tools to the PATH

Close Stale Issues ☆ 894
By actions
Close issues and pull requests with no recent activity

Download a Build Artifact ☆ 869
By actions
Download a build artifact that was previously uploaded in the workflow by the upload-artifact action

Featured categories



master / Booster_CI_CD_Project / .github / workflows /

Go to file | Add file | ...

This branch is 6 commits ahead of mahmoud254:master.

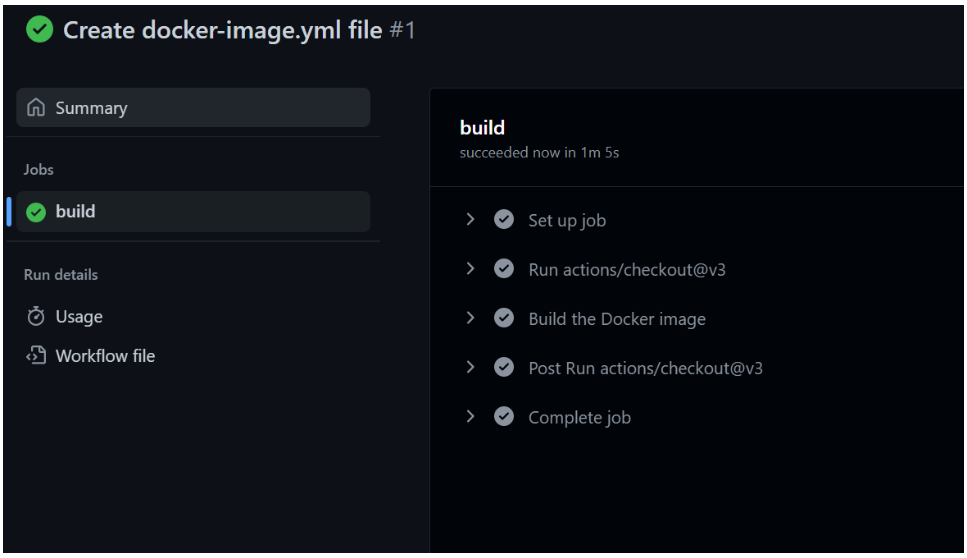
Contribute | Sync fork

AlaaiDwidar Create docker-image.yml ✕ aece131 6 minutes ago History

..

django-image.yml	Update django-image.yml	13 minutes ago
docker-image.yml	Create docker-image.yml	6 minutes ago

Give feedback



Create docker-image.yml file #1

build
succeeded now in 1m 5s

- Set up job
- Run actions/checkout@v3
- Build the Docker image
- Post Run actions/checkout@v3
- Complete job