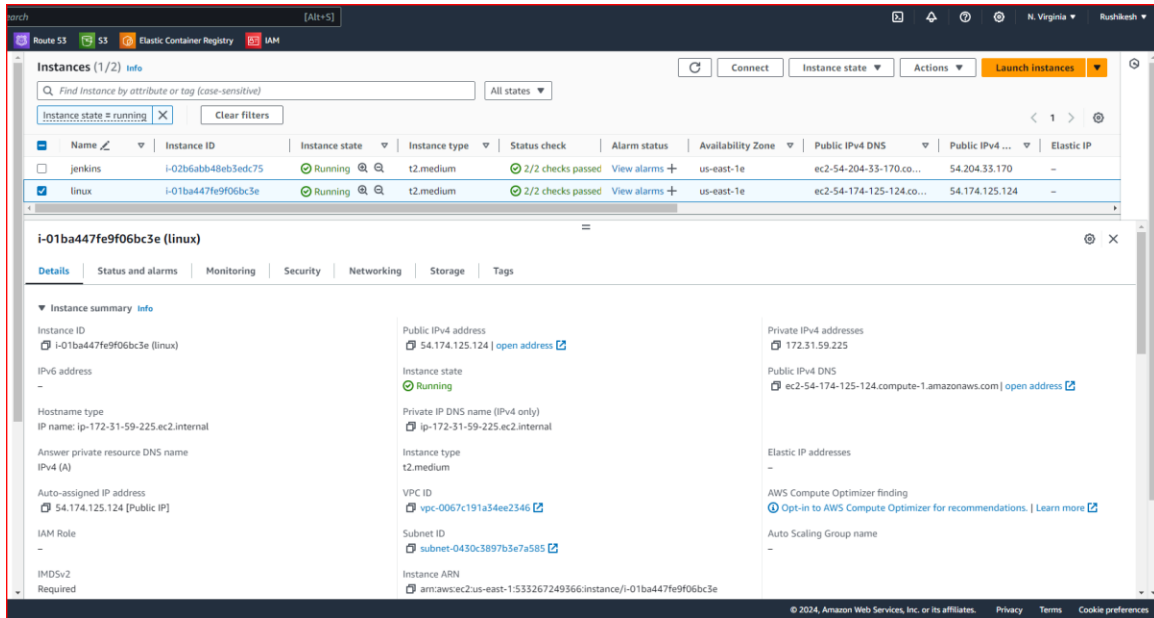


# JENKINS-POC

## Launch EC2 instance with t2.medium instance type



## Connect to EC2 instance

```
sudo yum update -y
```

```
sudo yum install python3-pip -y
```

```
pip3 --version
```

```
pip3 install Flask
```

```
python3 -m flask --version
```

```
sudo yum install docker.io
```

```
sudo yum install docker -y
```

```
sudo systemctl start docker
```

```
docker run -d --name jenkinscontainer -p 80:8080 jenkins/jenkins
```

```
docker ps -a
```

docker ps

docker exec -it 0579 bash

git clone https://github.com/rushikeshmj/hello-world.git

cd hello-world/

pwd

```
us-east-1.console.aws.amazon.com/ec2-instance-connect/ssh?region=us-east-1&connType=standard&instanceId=i-01ba447fe9f06bc3e&srcUser=ec2-user&sshPort=22#/?
AWS Services Search [Alt+S]
EC2 RDS VPC Route 53 S3 Elastic Container Registry IAM
Last login: Wed Jun 12 11:59:56 2024 from 18.206.107.29
[ec2-user@ip-172-31-59-225 ~]$ sudo su
[root@ip-172-31-59-225 ec2-user]# docker ps
CONTAINER ID        IMAGE               COMMAND             CREATED             STATUS              PORTS               NAMES
a602f12fd695       jenkins/jenkins    "/usr/bin/tini -- /u..." 19 hours ago        Up 19 hours        50000/tcp, 0.0.0.0:80->8080/tcp, :::80->8080/tcp    jenkinscontainer
[root@ip-172-31-59-225 ec2-user]# docker stop a602
a602
[root@ip-172-31-59-225 ec2-user]# docker ps -a
CONTAINER ID        IMAGE               COMMAND             CREATED             STATUS              PORTS               NAMES
a602f12fd695       jenkins/jenkins    "/usr/bin/tini -- /u..." 19 hours ago        Exited (143) 10 seconds ago                    jenkinscontainer
[root@ip-172-31-59-225 ec2-user]# docker rm a602
a602
[root@ip-172-31-59-225 ec2-user]# docker ps -a
CONTAINER ID        IMAGE               COMMAND             CREATED             STATUS              PORTS               NAMES
0579c0493bafde85c17f90d97c20a8908851a48933e53660a983daa9870eadca jenkins/jenkins    "/usr/bin/tini -- /u..." 6 seconds ago        Up 5 seconds        50000/tcp, 0.0.0.0:80->8080/tcp, :::80->8080/tcp    jenkinscontainer
[root@ip-172-31-59-225 ec2-user]# docker ps
CONTAINER ID        IMAGE               COMMAND             CREATED             STATUS              PORTS               NAMES
0579c0493baf       jenkins/jenkins    "/usr/bin/tini -- /u..." 10 seconds ago        Up 10 seconds        50000/tcp, 0.0.0.0:80->8080/tcp, :::80->8080/tcp    jenkinscontainer
[root@ip-172-31-59-225 ec2-user]# docker exec -it 0579 bash
jenkins@0579c0493baf:/$ cat /var/jenkins_home/secrets/initialAdminPassword
0b4eece03db4d99aa37c0b829dccc69
jenkins@0579c0493baf:/$
#exit
[root@ip-172-31-59-225 ec2-user]# git clone https://github.com/rushikeshmj/hello-world.git
fatal: destination path 'hello-world' already exists and is not an empty directory.
[root@ip-172-31-59-225 ec2-user]# cd hello-world/
[root@ip-172-31-59-225 hello-world]# ls
jenkinsfile  README.md  main.py  requirements.txt  setup.py  tests
[root@ip-172-31-59-225 hello-world]# pwd
/home/ec2-user/hello-world
[root@ip-172-31-59-225 hello-world]# history
1  sudo yum update -y
```

i-01ba447fe9f06bc3e (linux)  
PublicIPs: 54.174.125.124 PrivateIPs: 172.31.59.225

## Install plugins

Not secure 54.174.125.124/manage/pluginManager/installed

ChatGPT The Hub Cybage MIS Home - Cyblintranet EC2 Instance Conne...

# Jenkins

Search (CTRL+K)

Dashboard > Manage Jenkins > Plugins

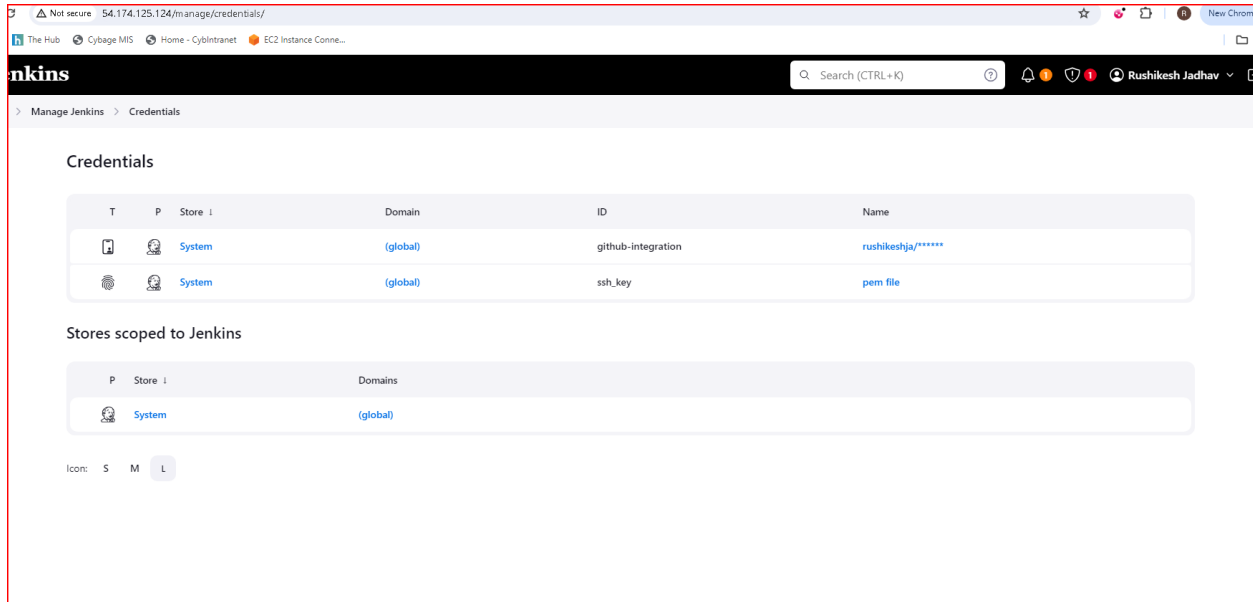
## Plugins

Search: github i

Updates	Name	Enabled
Available plugins	<b>GitHub API Plugin</b> 1.318-461.v7a.c09c9fa.d63 This plugin provides <b>GitHub API</b> for other plugins. <a href="#">Report an issue with this plugin</a>	<input checked="" type="checkbox"/>
Installed plugins	<b>GitHub Branch Source Plugin</b> 1789.v5b_0c0cea_18c3 Multibranch projects and organization folders from GitHub. Maintained by CloudBees, Inc. <a href="#">Report an issue with this plugin</a>	<input checked="" type="checkbox"/>
Advanced settings	<b>GitHub Integration Plugin</b> 0.7.0 GitHub Integration Plugin for Jenkins	<input checked="" type="checkbox"/>
Download progress	<b>GitHub plugin</b> 1.39.0 This plugin integrates <b>GitHub</b> to Jenkins. <a href="#">Report an issue with this plugin</a>	<input checked="" type="checkbox"/>
	<b>Pipeline: GitHub Groovy Libraries</b> 61.v629f2cc4fd83 Allows Pipeline Groovy libraries to be loaded on the fly from GitHub. <a href="#">Report an issue with this plugin</a>	<input checked="" type="checkbox"/>



## Add credentials



The screenshot shows the Jenkins web interface at the URL `54.174.125.124/manage/credentials/`. The page title is "Credentials" and it is part of the "Manage Jenkins" section. It displays a table of credentials and a section for stores scoped to Jenkins.

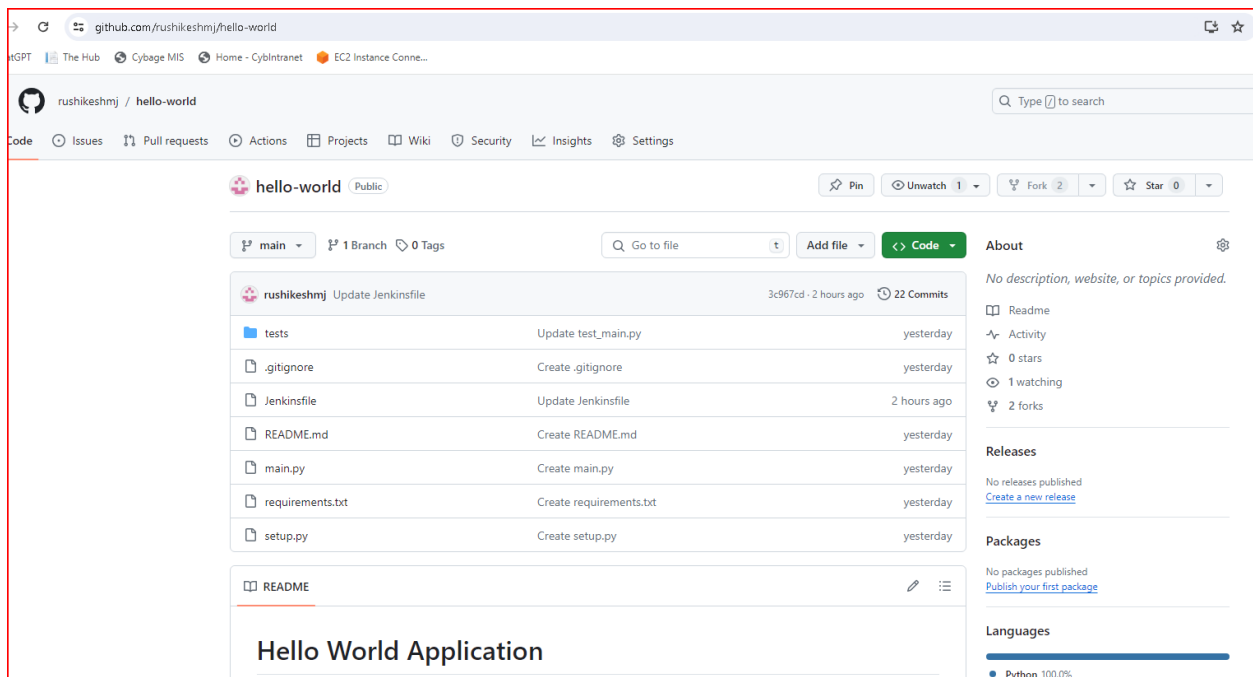
T	P	Store	Domain	ID	Name
		System	(global)	github-integration	rushikeshja/*****
		System	(global)	ssh_key	pem file

Stores scoped to Jenkins

P	Store	Domains
	System	(global)

Icon: S M L

## Create sample repository in github



The screenshot shows the GitHub repository page for "hello-world" by user "rushikeshmj". The repository is public and has 1 branch and 0 tags. The file list shows the following files and their commit history:

File	Commit	Time
tests	Update test_main.py	yesterday
.gitignore	Create .gitignore	yesterday
Jenkinsfile	Update Jenkinsfile	2 hours ago
README.md	Create README.md	yesterday
main.py	Create main.py	yesterday
requirements.txt	Create requirements.txt	yesterday
setup.py	Create setup.py	yesterday

The README file is selected, showing the title "Hello World Application".

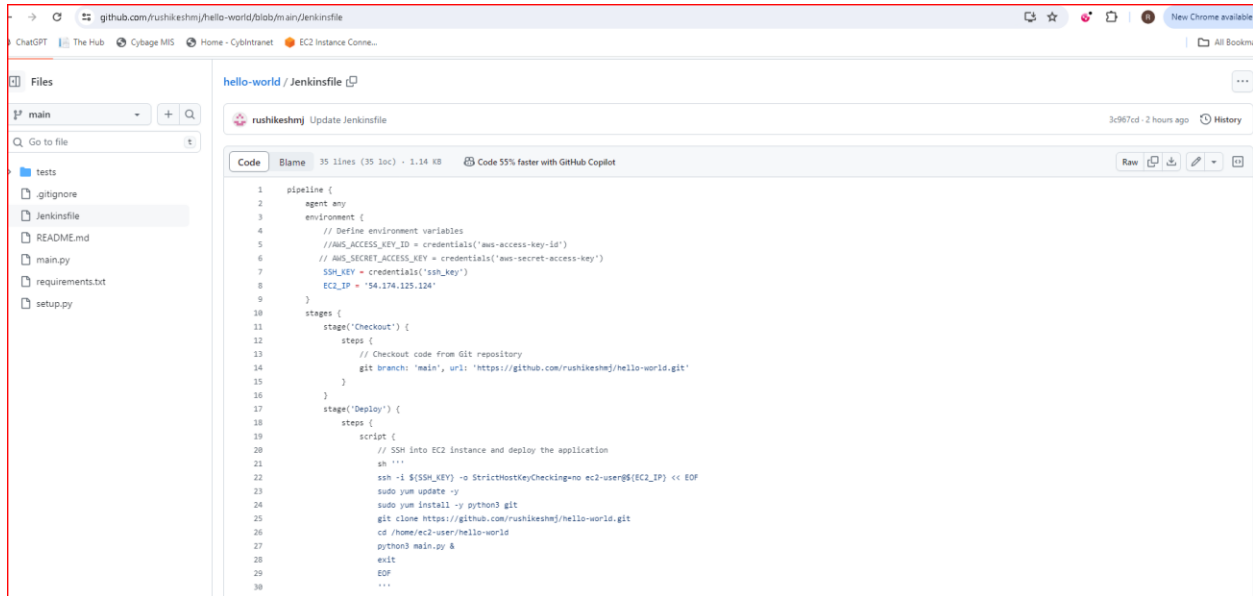
Repository statistics: 0 stars, 1 watching, 2 forks.

Releases: No releases published. [Create a new release](#)

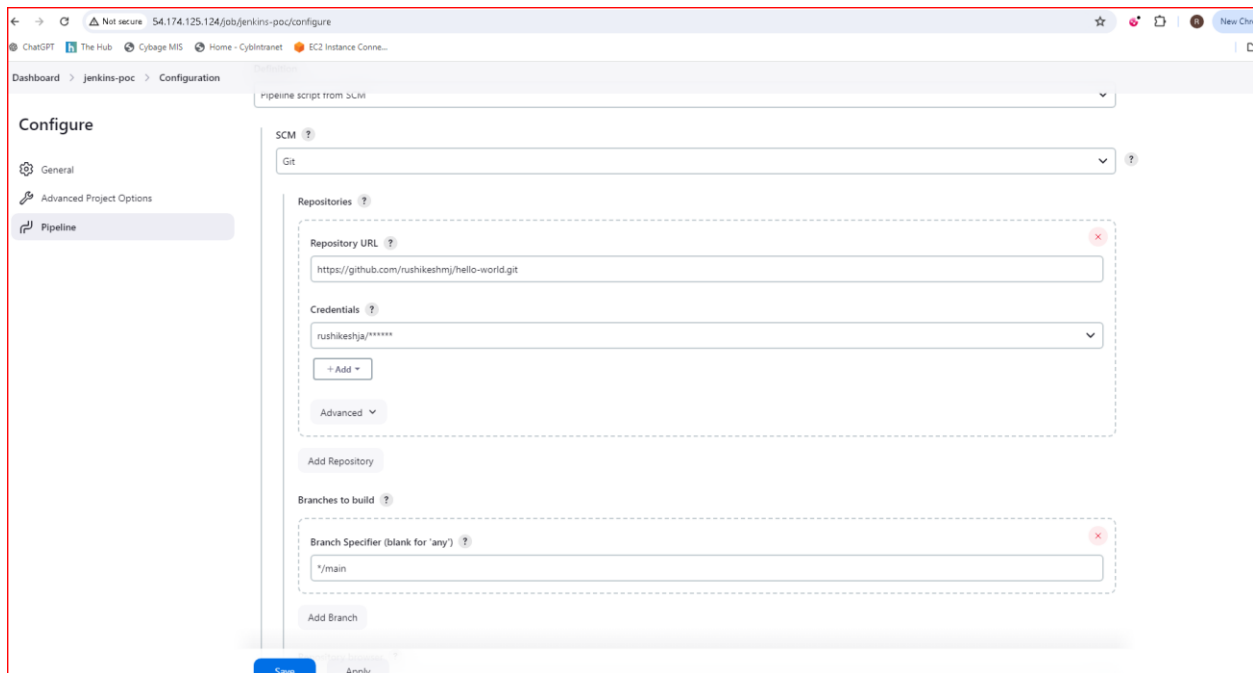
Packages: No packages published. [Publish your first package](#)

Languages: Python 100.0%

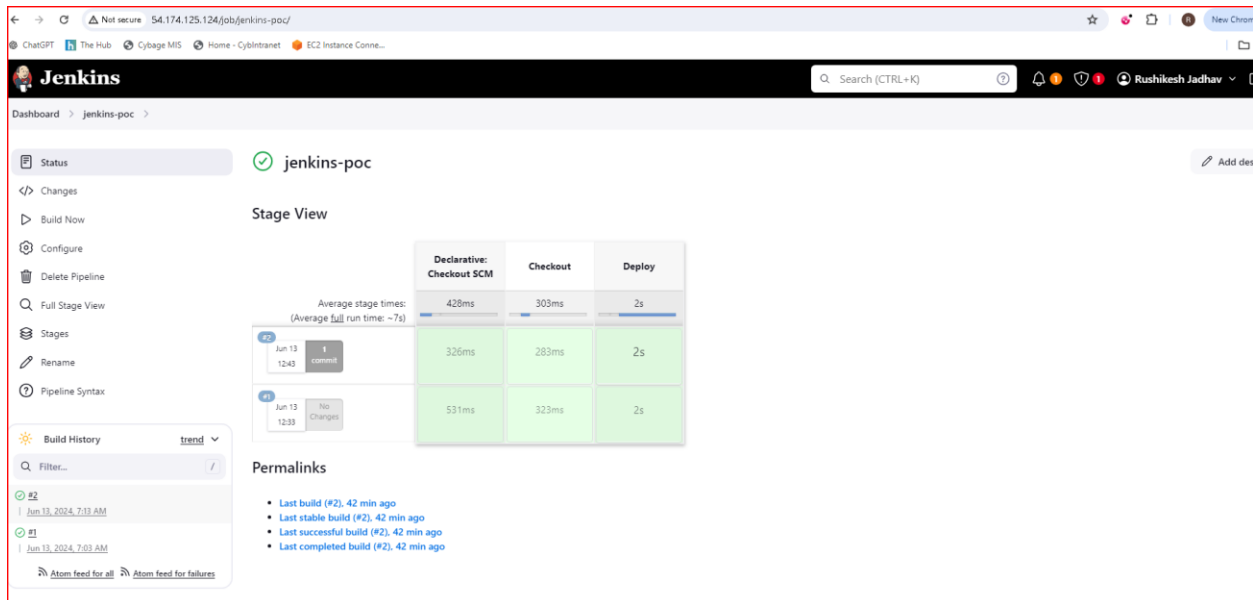
## Create Jenkins file in that repo



## Configure the github repo and cred in configure section



## Click on build now and the console output



The screenshot shows the Jenkins dashboard for a job named 'jenkins-poc'. The left sidebar contains navigation links: Status, Changes, Build Now, Configure, Delete Pipeline, Full Stage View, Stages, Rename, Pipeline Syntax, Build History, and Atom feed for all/Atom feed for failures. The main area displays the 'Stage View' for 'jenkins-poc'. It includes a table of stage times and a list of build history items.

	Declarative: Checkout SCM	Checkout	Deploy
Average stage times (Average full run time: ~7s)	428ms	303ms	2s
Jun 13 12:43 1 commit	326ms	283ms	2s
Jun 13 12:39 No Changes	531ms	323ms	2s

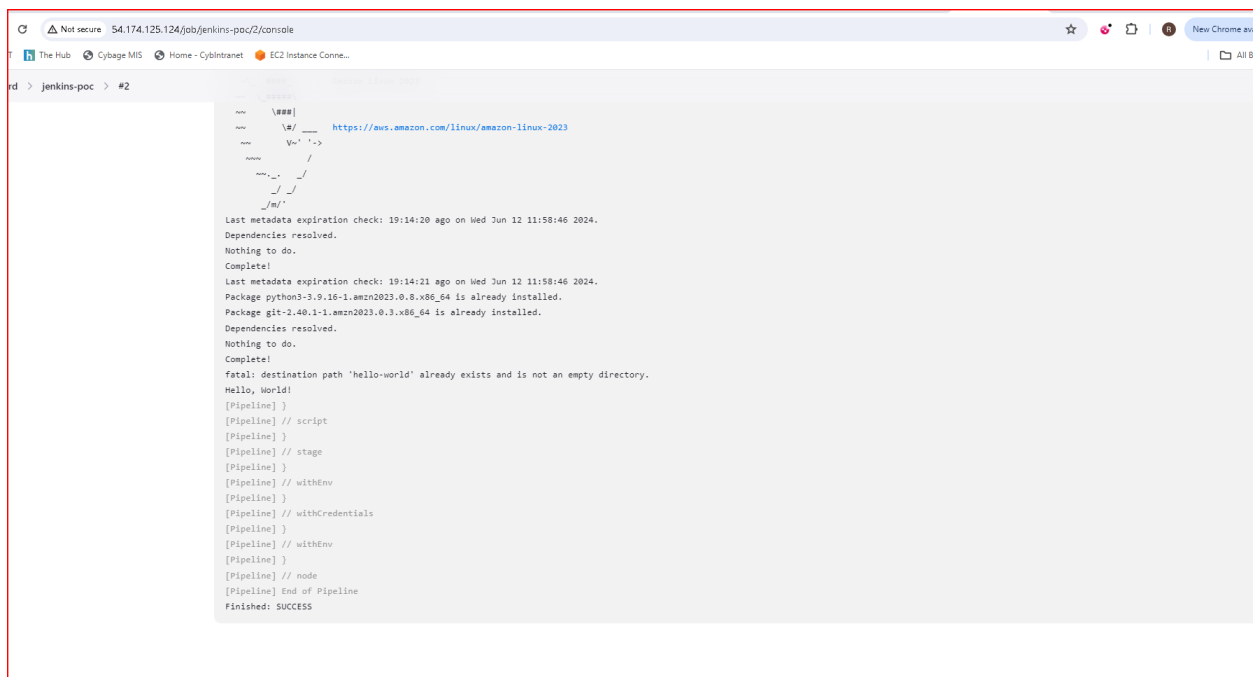
**Build History**

- #2 Jun 13, 2024, 7:13 AM
- #1 Jun 13, 2024, 7:09 AM

**Permalinks**

- Last build (#2), 42 min ago
- Last stable build (#2), 42 min ago
- Last successful build (#2), 42 min ago
- Last completed build (#2), 42 min ago

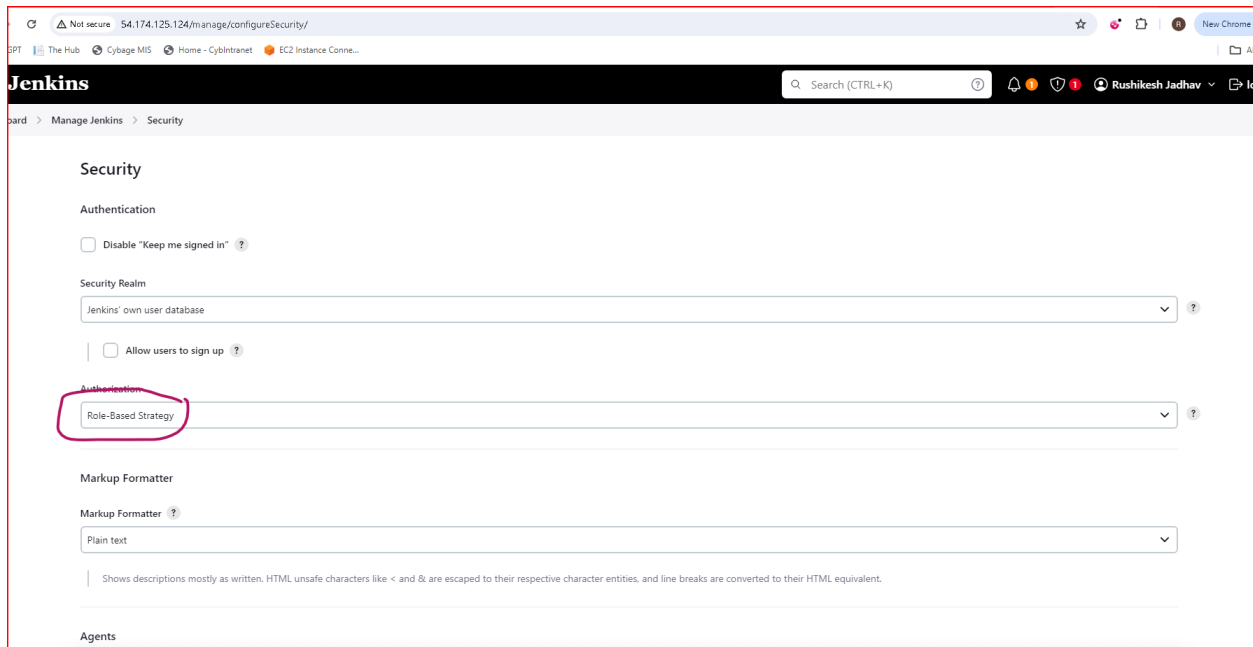
## Check the console output



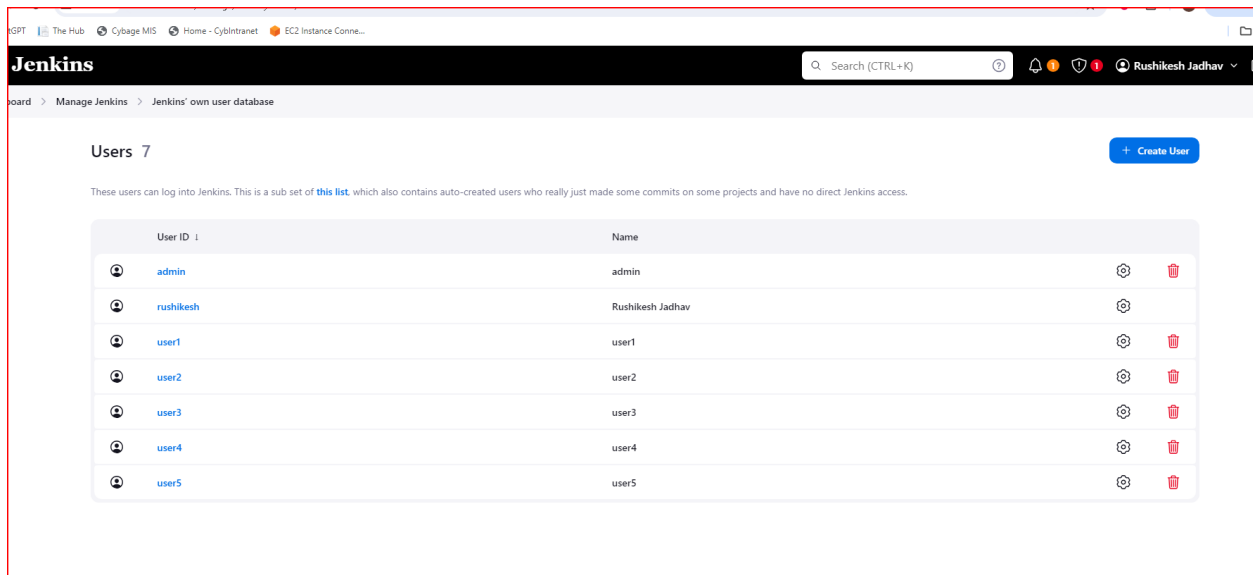
The screenshot shows the Jenkins console output for build #2 of 'jenkins-poc'. The output displays the execution of a pipeline script, including stage names, environment variables, and the final success message.

```
jenkins-poc #2
[Pipeline]
[Pipeline] // script
[Pipeline]
[Pipeline] // stage
[Pipeline]
[Pipeline] // withEnv
[Pipeline]
[Pipeline]
[Pipeline] // withCredentials
[Pipeline]
[Pipeline] // withEnv
[Pipeline]
[Pipeline] // node
[Pipeline] End of Pipeline
Finished: SUCCESS
```

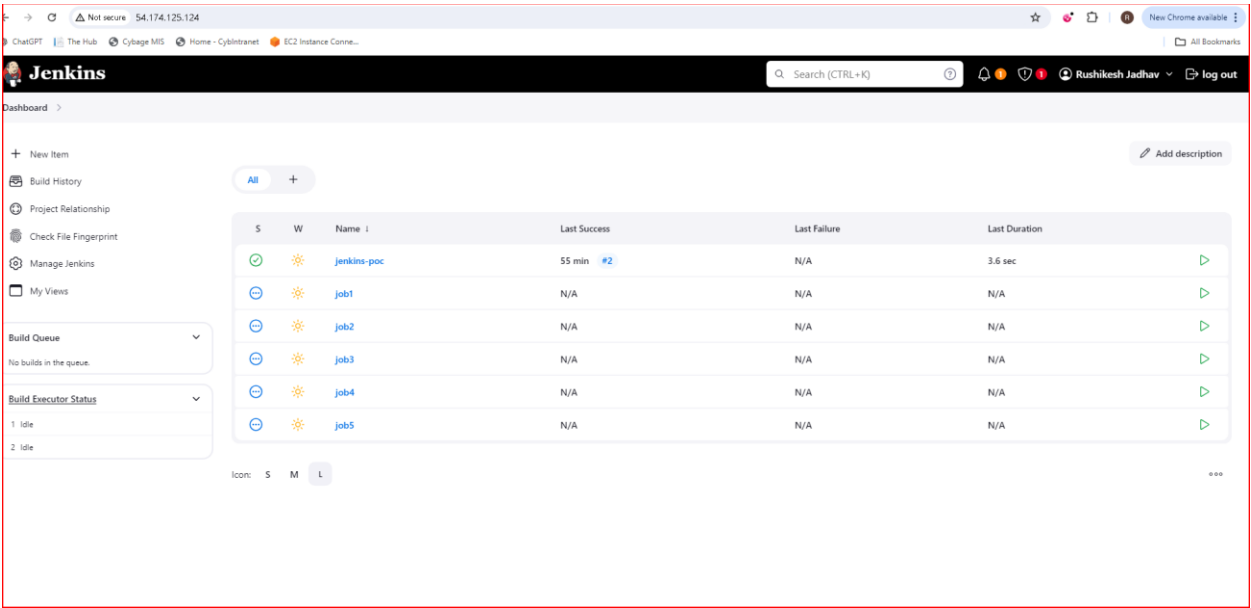
## Use role-based strategy in Authorization



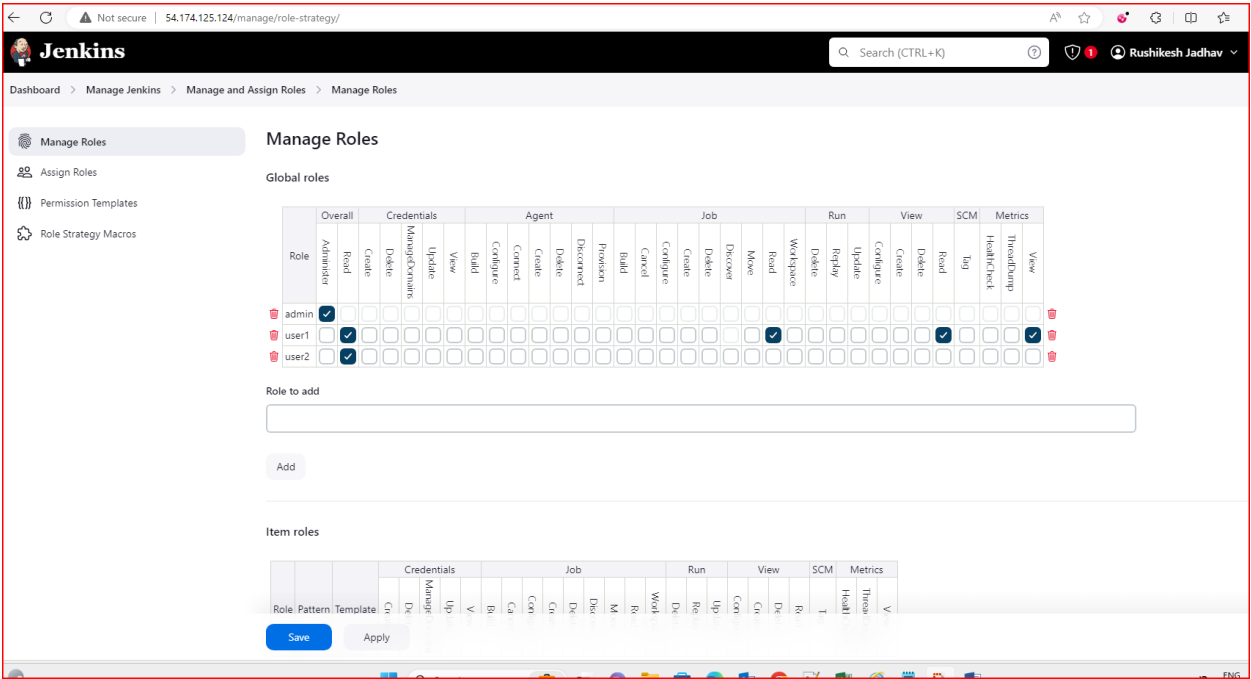
## Create 5 users



# Create 5 jobs



# User1 cannot create Job





Jenkins

Search (CTRL+K)

Rushikesh Jadhav

Dashboard > Manage Jenkins > Manage and Assign Roles > Assign Roles

Manage Roles

Assign Roles

Permission Templates

Role Strategy Macros

Assign Roles

Global roles

User/Group	manage	learn	admin
Anonymous	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Authenticated Users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rushikesh Jadhav	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
user1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Add User

Add Group

Item roles

User/Group
Anonymous
Authenticated Users

Add User

Add Group

Agent roles

Save

Apply

ChatGPT

The Hub

Cybage MIS

Home - Cybitstranet

EC2 Instance Conne...

Jenkins

Search (CTRL+K)

user1

Dashboard >

Build History

Project Relationship

Check File Fingerprint

My Views

Build Queue

No builds in the queue.

Build Executor Status

1 Idle

2 Idle

All

S	W	Name	Last Success	Last Failure	Last Duration
		jenkins-poc	2 hr 24 min #5	N/A	3.8 sec
		jenkins-poc1	N/A	N/A	N/A
		job1	2 hr 20 min #2	N/A	3.3 sec
		job2	N/A	N/A	N/A
		job3	N/A	N/A	N/A
		job4	N/A	N/A	N/A
		job5	N/A	N/A	N/A

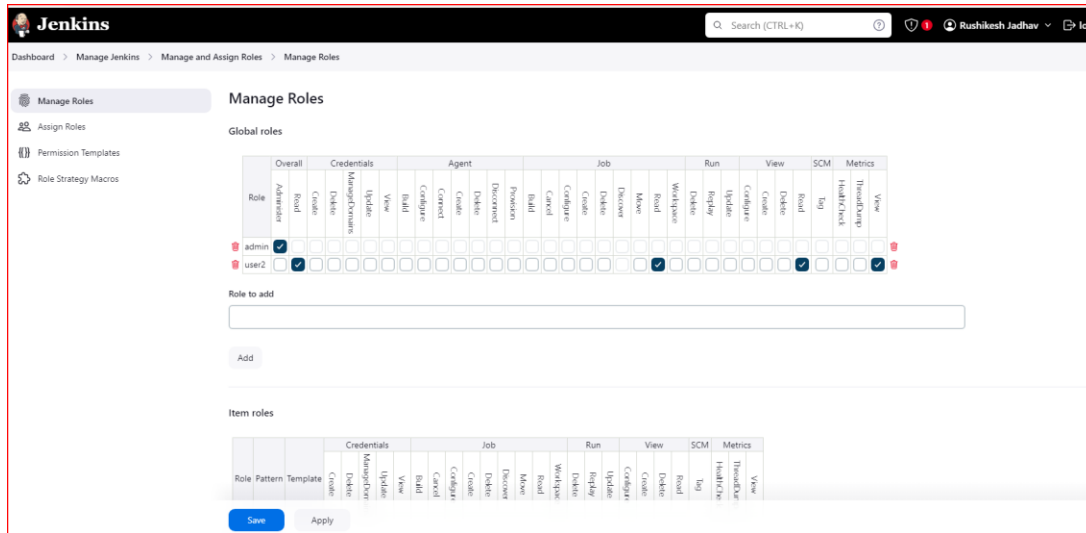
Icons: 

S

M

L

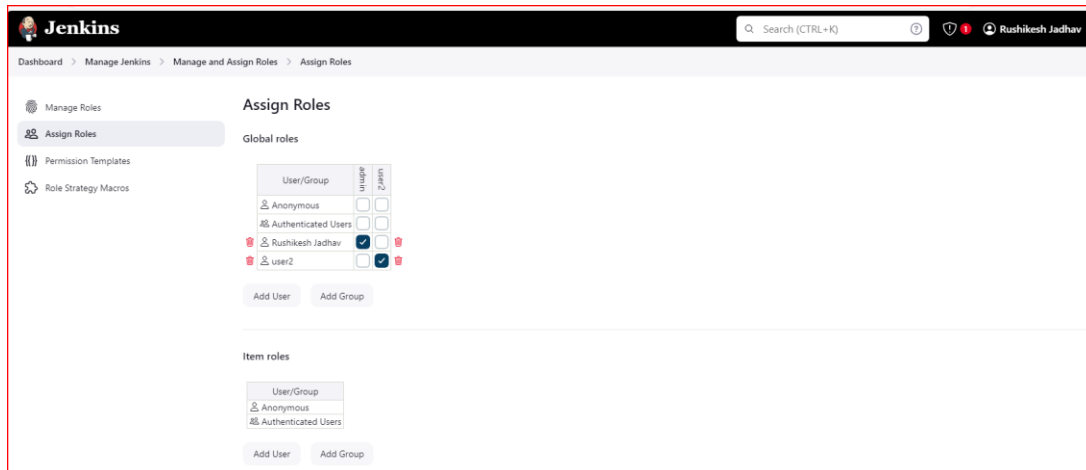
## User2 cannot run the Job



The screenshot shows the Jenkins 'Manage Roles' page. The 'Global roles' table lists permissions for 'admin' and 'user2'. 'user2' has 'Run' permission checked, but 'Job' permissions are not. The 'Item roles' table shows permissions for 'Pattern' and 'Template'.

Role	Overall	Credentials	Agent	Job	Run	View	SCM	Metrics
admin	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
user2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Role	Pattern	Template	Credentials	Job	Run	View	SCM	Metrics
admin	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
user2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



The screenshot shows the Jenkins 'Assign Roles' page. The 'Global roles' table lists permissions for 'admin', 'Anonymous', 'Authenticated Users', 'Rushikesh Jadhav', and 'user2'. 'user2' has 'Run' permission checked, but 'Job' permissions are not. The 'Item roles' table shows permissions for 'Pattern' and 'Template'.

User/Group	admin	user2
admin	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Anonymous	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Authenticated Users	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Rushikesh Jadhav	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
user2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

User/Group	admin	user2
admin	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Anonymous	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Authenticated Users	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

