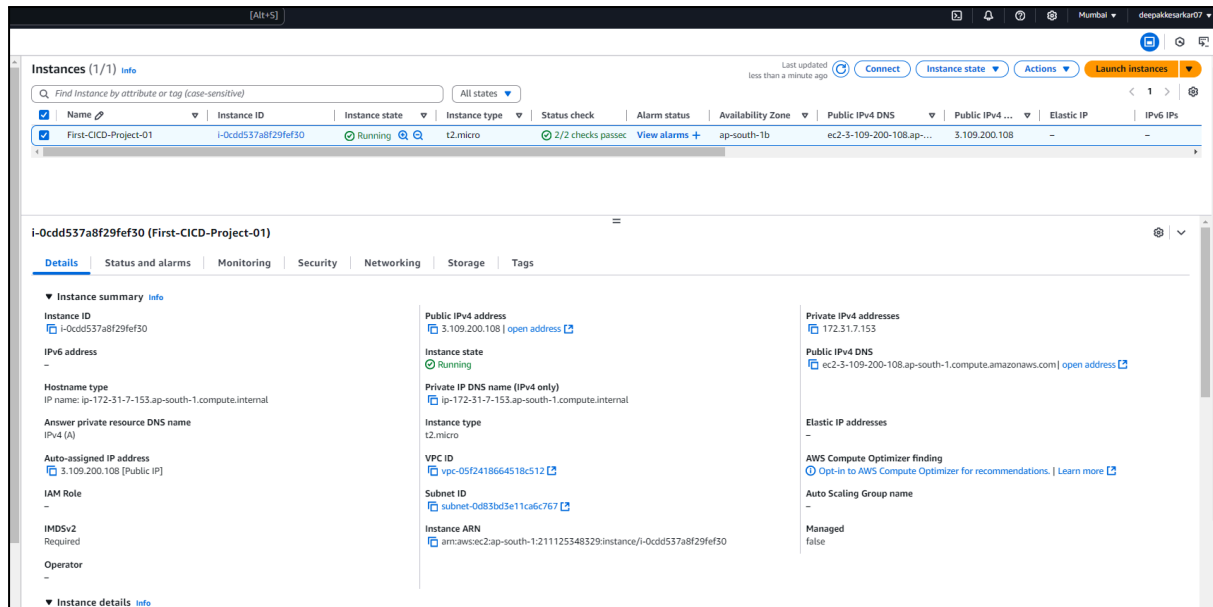


My First Jenkins Project

Step 1: Launch EC2 Instance

- Launched a normal EC2 instance.



Step 2: Configure the Instance

Logged into the instance via SSH and updated libraries:

```
sudo apt update
```

Step 3: Install Java

Jenkins requires Java, so I installed it with:

```
sudo apt install openjdk-17-jre
```

Verified the installation:

```
java -version
```

Output:

```
openjdk version "17.0.13" 2024-10-15
OpenJDK Runtime Environment (build 17.0.13+11-Ubuntu-2ubuntu124.04)
OpenJDK 64-Bit Server VM (build 17.0.13+11-Ubuntu-2ubuntu124.04,
mixed mode, sharing)
```

Java installation was successful.

Step 4: Install Jenkins

Added the Jenkins repository and key:

```
curl -fsSL https://pkg.jenkins.io/debian/jenkins.io-2023.key | sudo
tee \
  /usr/share/keyrings/jenkins-keyring.asc > /dev/null
echo deb [signed-by=/usr/share/keyrings/jenkins-keyring.asc] \
  https://pkg.jenkins.io/debian binary/ | sudo tee \
  /etc/apt/sources.list.d/jenkins.list > /dev/null
```

Updated libraries and installed Jenkins:

```
sudo apt-get update
sudo apt-get install jenkins
```

Step 5: Open Port 8080

- By default, Jenkins is inaccessible externally.
- Open port 8080 in AWS Security Groups:
 1. Go to **EC2 > Instances** and select your instance.
 2. Under **Security**, click **Security Groups**.
 3. Add an inbound rule to allow TCP traffic on port 8080 (or allow all traffic temporarily).

Security group rule ID	Type	Protocol	Port range	Source	Description - optional
sgr-071e29d6407172b8f	Custom TCP	TCP	8080	Custom	Allowed traffic on 8080
sgr-016370977a7f6dc6a	SSH	TCP	22	Custom	

Rules with source of 0.0.0.0/0 or ::/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.

Step 6: Access Jenkins

- Access Jenkins via `http://<EC2-Instance-Public-IP>:8080`.
- Retrieve the admin password:

```
sudo cat /var/lib/jenkins/secrets/initialAdminPassword
```

Follow the on-screen steps to:

1. Enter the admin password.
2. Install suggested plugins.
3. Create an admin user (optional but recommended).

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

Getting Started

Getting Started

✓ Folders	✓ OWASP Markup Formatter	✓ Build Timeout	⌚ Credentials Binding	** Ionicons API
⌚ Timestamper	⌚ Workspace Cleanup	⌚ Ant	⌚ Gradle	Folders
⌚ Pipeline	⌚ GitHub Branch Source	⌚ Pipeline: GitHub Groovy Libraries	⌚ Pipeline Graph View	OWASP Markup Formatter
⌚ Git	⌚ SSH Build Agents	⌚ Matrix Authorization Strategy	⌚ PAM Authentication	** ASH API
⌚ LDAP	⌚ Email Extension	⌚ Mailer	⌚ Dark Theme	** JSON Path API
				** Structs
				** Pipeline: Step API
				** Token Macro
				Build Timeout
				** bouncycastle API

Getting Started

Jenkins is ready!

Your Jenkins setup is complete.

Start using Jenkins

Step 8: Install Docker Pipeline Plugin

- In Jenkins:
 1. Navigate to **Manage Jenkins > Manage Plugins**.
 2. Under the **Available** tab, search for "Docker Pipeline".
 3. Install the plugin and restart Jenkins.
- Log back in using your credentials.

Step 9: Create a Pipeline Job

Uploaded a simple Jenkins pipeline script to GitHub:

```
pipeline {
  agent {
    docker { image 'node:16-alpine' } // Node.js version
  }
  stages {
    stage('Test') {
      steps {
        sh 'node --version'
      }
    }
  }
}
```

Steps to configure the job:

1. Go to the Jenkins dashboard and create a new pipeline job.
2. Under **SCM**, add the GitHub repository URL.
3. Specify the script path (e.g., [Jenkinsfile](#)).
4. Save and click **Build Now**.
5. Check the console output to verify successful execution.

Jenkins

Search (CTRL+K)

Deepak Kesarkar

log out

Dashboard

+ New Item

Build History

Manage Jenkins

My Views

Build Queue

No builds in the queue.

Build Executor Status

0/2

Welcome to Jenkins!

This page is where your Jenkins jobs will be displayed. To get started, you can set up distributed builds or start building a software project.

Start building your software project

Create a job

Set up a distributed build

Set up an agent

Configure a cloud

Learn more about distributed builds

+ New Item

Build History

Manage Jenkins

My Views

Build Queue

No builds in the queue.

Build Executor Status

0/2

Manage Jenkins

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.

Clouds

Add, remove, and configure cloud instances to provision agents on-demand.

Appearance

Configure the look and feel of Jenkins

Dashboard > Manage Jenkins > Plugins

Plugins

Search available plugins

Install	Name
<input type="checkbox"/>	<div>JavaMail API 1.6.2-10</div> <div>Library plugins (for use by other plugins)</div> <div>This plugin provides the JavaMail API for other plugins.</div>
<input type="checkbox"/>	<div>Command Agent Launcher 116.vd85919c54a_d6</div> <div>Agent Management</div> <div>Allows agents to be launched using a specified command.</div>
<input type="checkbox"/>	<div>Oracle Java SE Development Kit Installer 80.v8a_dee33ed6f0</div> <div>Allows the Oracle Java SE Development Kit (JDK) to be installed via download from Oracle's website.</div>

Updates

Available plugins

Installed plugins

Advanced settings

Download progress

Plugins

Download progress

Preparation

- Checking internet connectivity
- Checking update center connectivity
- Success

Authentication Tokens API

Success

Docker Commons

Success

Docker Pipeline

Success

Loading plugin extensions


Success

Go back to the top page

(you can start using the installed plugins right away)

Restart Jenkins when installation is complete and no jobs are running



 Jenkins is restarting

Your browser will reload automatically when Jenkins is ready

Safe Restart
Builds on agents can usually continue.

Pipeline

Definition

Pipeline script from SCM

SCM ?

None

Script Path ?

Jenkinsfile

☒ Lightweight checkout ?

[Pipeline Syntax](#)

Save

Apply

Jenkins

Search (CTRL+K)

Deepak Kesarkar

Dashboard > my-first-jenkins-job >

Status

Changes

Build Now

Configure

Delete Pipeline

Stages

Rename

Pipeline Syntax

my-first-jenkins-job

A simple jenkins pipeline to verify if the docker slave configuration is working as expected.

Permalinks

Builds

No builds

Jenkins

Search (CTRL+K)

Deepak Kesarkar

log out

Dashboard > Jenkins-project > #3

Status

Changes

Console Output

Edit Build Information

Delete build #3

Timings

Git Build Data

Pipeline Overview

Pipeline Console

Restart from Stage

Replay

Pipeline Steps

Workspaces

Console Output

DownloadCopyView as plain text

Started by user Deepak Kesarkar
Obtained Jenkinsfile from git https://github.com/deepakkesarkar8809/CICD_Project
[Pipeline] Start of Pipeline
[Pipeline] node
Running on Jenkins in /var/lib/jenkins/workspace/Jenkins-project
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Declarative: Checkout SCM)
[Pipeline] checkout
Selected Git installation does not exist. Using Default
The recommended git tool is: NONE
No credentials specified
Cloning the remote Git repository
Cloning repository https://github.com/deepakkesarkar8809/CICD_Project
> git init /var/lib/jenkins/workspace/Jenkins-project # timeout=10
Fetching upstream changes from https://github.com/deepakkesarkar8809/CICD_Project
> git --version # timeout=10
> git --version # 'git version 2.43.0'
> git fetch --tags --force --progress -- https://github.com/deepakkesarkar8809/CICD_Project +refs/heads/*:refs/remotes/origin/* # timeout=10
> git config remote.origin.url https://github.com/deepakkesarkar8809/CICD_Project # timeout=10
> git config --add remote.origin.fetch +refs/heads/*:refs/remotes/origin/* # timeout=10
Build second-fake

Jenkins

Search (CTRL+K)

Deepak Kesarkar

log out

Dashboard >

New Item

Build History

Manage Jenkins

My Views

Build Queue

No builds in the queue.

AB +

S	W	Name	Last Success	Last Failure	Last Duration
🟢	🌞	Jenkins-project	36 min #3	N/A	7.2 sec