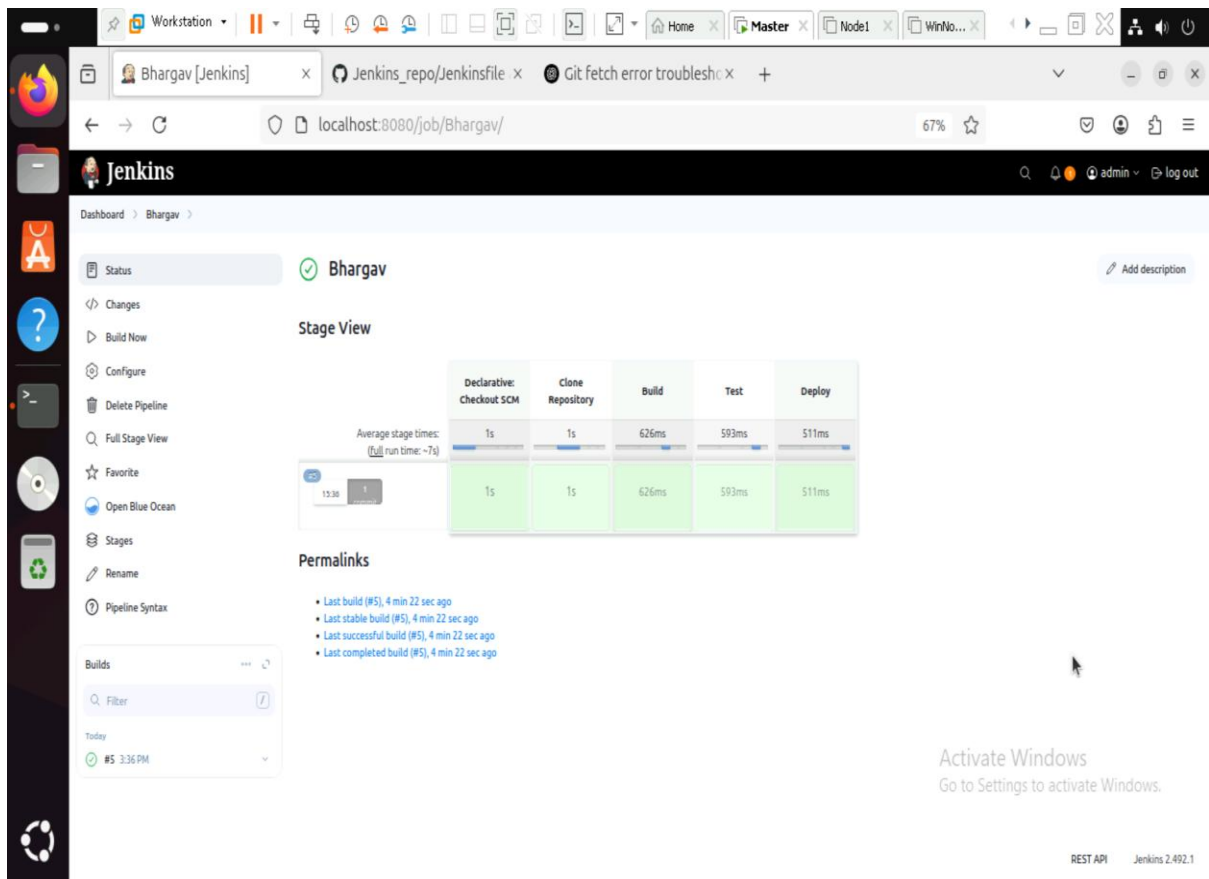


Automating CI/CD Pipeline with Groovy(Jenkins Pipeline Scripting)



The screenshot shows the Jenkins web interface for a pipeline named 'Bhargav'. The 'Stage View' displays a table of stages and their durations. The stages are Declarative: Checkout SCM, Clone Repository, Build, Test, and Deploy. The average stage times are 1s, 1s, 626ms, 593ms, and 511ms respectively. The full run time is 7s. Below the table, there are permalinks for the last build, last stable build, last successful build, and last completed build, all of which are 4 minutes and 22 seconds old.

Stage	Declarative: Checkout SCM	Clone Repository	Build	Test	Deploy
Average stage times:	1s	1s	626ms	593ms	511ms
Full run time: ~7s	1s	1s	626ms	593ms	511ms

Permalinks

- Last build (#5), 4 min 22 sec ago
- Last stable build (#5), 4 min 22 sec ago
- Last successful build (#5), 4 min 22 sec ago
- Last completed build (#5), 4 min 22 sec ago

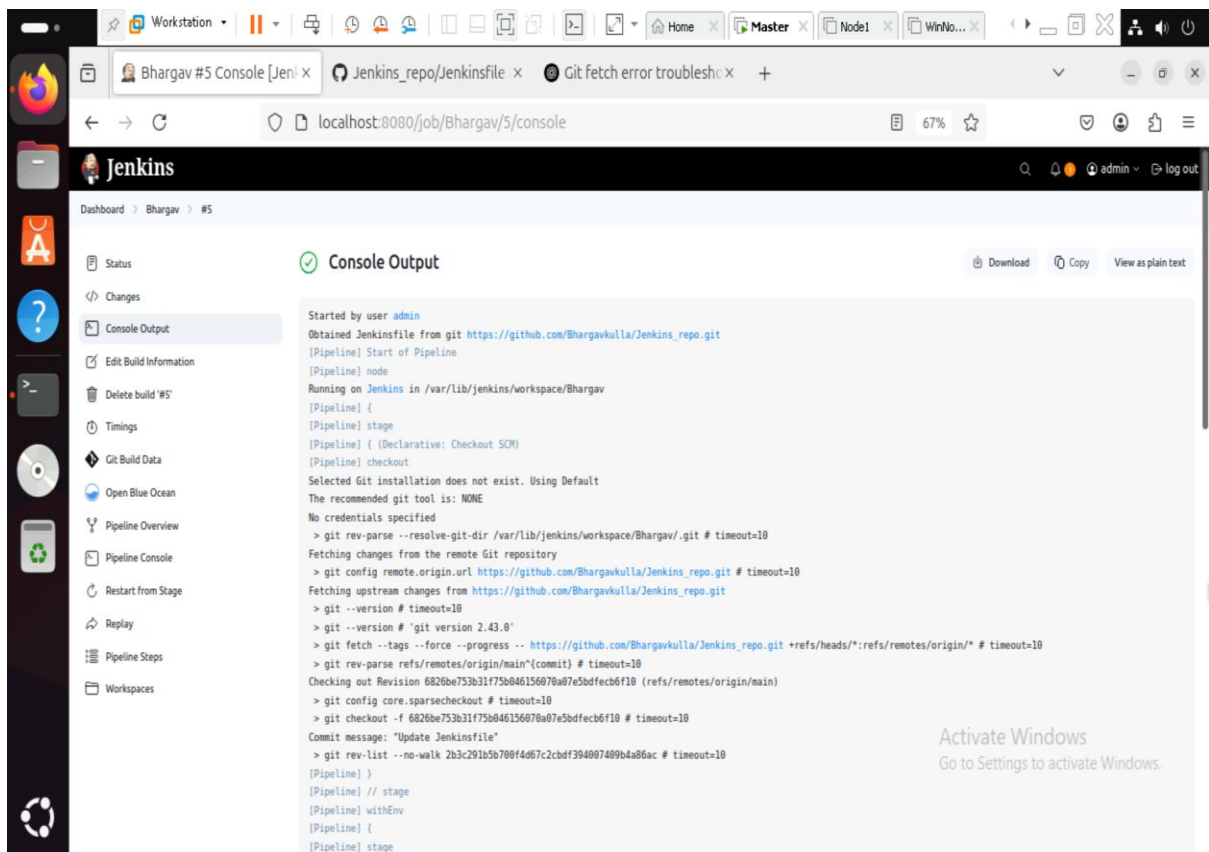
Builds

Filter

Today

#5 3:36 PM

REST API Jenkins 2.492.1



The screenshot shows the Jenkins web interface for the 'Bhargav #5 Console [Jen]' view. The console output displays the pipeline execution details, including the user 'admin', the Jenkinsfile location, and the stages: Declarative: Checkout SCM, Clone Repository, Build, Test, and Deploy. The output shows the pipeline running on Jenkins in the workspace /var/lib/jenkins/workspace/Bhargav. The console output is as follows:

```
Started by user admin
Obtained Jenkinsfile from git https://github.com/Bhargavkulla/Jenkins_repo.git
[Pipeline] Start of Pipeline
[Pipeline] node
Running on Jenkins in /var/lib/jenkins/workspace/Bhargav
[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
> git rev-parse --resolve-git-dir /var/lib/jenkins/workspace/Bhargav/.git # timeout=10
Fetching changes from the remote Git repository
> git config remote.origin.url https://github.com/Bhargavkulla/Jenkins_repo.git # timeout=10
Fetching upstream changes from https://github.com/Bhargavkulla/Jenkins_repo.git
> git --version # timeout=10
> git --version # 'git version 2.43.0'
> git fetch --tags --force --progress -- https://github.com/Bhargavkulla/Jenkins_repo.git +refs/heads/*:refs/remotes/origin/* # timeout=10
> git rev-parse refs/remotes/origin/main^{commit} # timeout=10
Checking out Revision 6826be753b31f75b046156070a07e5bdfecb6f10 (refs/remotes/origin/main)
> git config core.sparsecheckout # timeout=10
> git checkout -f 6826be753b31f75b046156070a07e5bdfecb6f10 # timeout=10
Commit message: "Update Jenkinsfile"
> git rev-list --no-walk 2b3c291b5b700f4d67c2bdf394807409b4a86ac # timeout=10
[Pipeline] }
[Pipeline] // stage
[Pipeline] withEnv
[Pipeline] {
[Pipeline] stage
```

Workstation | Home | Master | Node1 | WinNo...

Bhargav #5 Console [Jen] x Jenkins_repo/Jenkinsfile x Git fetch error troublesho x

localhost:8080/job/Bhargav/5/console

Dashboard > Bhargav > #5

```
> git rev-list --no-walk 2b3c291b5b709f4d67c2bdf394087409b4a86ac # timeout=10
[Pipeline]
[Pipeline] // stage
[Pipeline] withEnv
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Clone Repository)
[Pipeline] git
Selected Git installation does not exist. Using Default
The recommended git tool is: NONE
No credentials specified
> git rev-parse --resolve-git-dir /var/lib/jenkins/workspace/Bhargav/.git # timeout=10
Fetching changes from the remote Git repository
> git config remote.origin.url https://github.com/Bhargavkulla/Jenkins_repo.git # timeout=10
Fetching upstream changes from https://github.com/Bhargavkulla/Jenkins_repo.git
> git --version # timeout=10
> git --version # 'git version 2.43.8'
> git fetch --tags --force --progress -- https://github.com/Bhargavkulla/Jenkins_repo.git +refs/heads/*:refs/remotes/origin/* # timeout=10
> git rev-parse refs/remotes/origin/main^{commit} # timeout=10
Checking out Revision 6826be753b31f75b046156070a07e5bdfecb6f10 (refs/remotes/origin/main)
> git config core.sparsecheckout # timeout=10
> git checkout -f 6826be753b31f75b046156070a07e5bdfecb6f10 # timeout=10
> git branch -a -v --no-abbrev # timeout=10
> git checkout -b main 6826be753b31f75b046156070a07e5bdfecb6f10 # timeout=10
Commit message: "Update Jenkinsfile"
[Pipeline]
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Build)
[Pipeline] sh
+ echo Building the application...
Building the application...
[Pipeline]
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Test)
[Pipeline] sh
```

Activate Windows
Go to Settings to activate Windows.

Workstation | Home | Master | Node1 | WinNo...

Bhargav #5 Console [Jen] x Jenkins_repo/Jenkinsfile x Git fetch error troublesho x

localhost:8080/job/Bhargav/5/console

Dashboard > Bhargav > #5

```
> git checkout -b main 6826be753b31f75b046156070a07e5bdfecb6f10 # timeout=10
Commit message: "Update Jenkinsfile"
[Pipeline]
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Build)
[Pipeline] sh
+ echo Building the application...
Building the application...
[Pipeline]
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Test)
[Pipeline] sh
+ echo Running tests...
Running tests...
[Pipeline]
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Deploy)
[Pipeline] sh
+ echo Deploying application...
Deploying application...
[Pipeline]
[Pipeline] // stage
[Pipeline]
[Pipeline] // withEnv
[Pipeline]
[Pipeline] // node
[Pipeline] End of Pipeline
Finished: SUCCESS
```

Activate Windows
Go to Settings to activate Windows.

REST API Jenkins 2.492.1

Workstation | Master | Node1 | WinNode2

Bhargav #5 Console [Jen] x Bhargavkulla/Jenkins_rep x bhargavkulla/my-flask-a x Bhargavkulla/simple_doc x

https://github.com/Bhargavkulla/Jenkins_repo 110%

Bhargavkulla / Jenkins_repo

Type to search

<> Code Issues Pull requests Actions Projects Wiki Security Insights Settings

Jenkins_repo Public

Pin Unwatch 1 Fork 0 Star 0

main 1 Branch 0 Tags

Go to file

Code

Bhargavkulla Update Jenkinsfile 6826be7 · 2 weeks ago 6 Commits

Jenkinsfile	Update Jenkinsfile	2 weeks ago
README.md	Initial commit	2 weeks ago

README

Jenkins_repo

About

No description, website, or topics provided.

Readme

Activity

0 stars

1 watching

0 forks

Releases

No releases published

[Create a new release](#)

MakeMyLabs x Jenkins_repo/Jenkinsfile at main x Jenkins pipeline review x

github.com/Bhargavkulla/Jenkins_repo/blob/main/Jenkinsfile

Files

main

Go to file

Jenkinsfile

README.md

Bhargavkulla Update Jenkinsfile 6826be7 · 2 hours ago History

Code Blame 33 lines (29 loc) · 912 Bytes Code 55% faster with GitHub Copilot

```
1 pipeline {
2   agent any // Runs on any available agent
3
4   stages {
5     stage('Clone Repository') {
6       steps {
7         // Make sure the Git URL is correct
8         git url:'https://github.com/Bhargavkulla/Jenkins_repo.git', branch: 'main'
9       }
10    }
11
12    stage('Build') {
13      steps {
14        // Replace with actual build commands (e.g., mvn, npm, etc.)
15        sh 'echo "Building the application..."'
16      }
17    }
18
19    stage('Test') {
20      steps {
21        // Replace with actual test commands (e.g., npm test, pytest, etc.)
22        sh 'echo "Running tests..."'
23      }
24    }
25
26    stage('Deploy') {
27      steps {
28        // Replace with actual deploy commands (e.g., kubectl, docker, etc.)
29        sh 'echo "Deploying application..."'
30      }
31    }
32  }
33 }
```

31°C Partly sunny

Search

ENG IN

17:50 19-02-2025

Python Pipeline

The screenshot shows the GitHub repository page for 'Python_jenkins' by user 'Bhargavkulla'. The repository is public and has 1 branch and 0 tags. The file list includes 'tests', 'Jenkinsfile', 'requirements.txt', and 'setup.py', all committed 1 hour ago. The 'About' section is empty, and the 'Releases' section shows no releases published. The 'Packages' section also shows no packages published. The 'README' section is empty.

Python_jenkins Public

main 1 Branch 0 Tags

Go to file

Code

Bhargavkulla initial 362bcd6 · 1 hour ago 1 Commit

File	Commit	Time
tests	initial	1 hour ago
Jenkinsfile	initial	1 hour ago
requirements.txt	initial	1 hour ago
setup.py	initial	1 hour ago

README

About

No description, website, or topics provided.

Activity

0 stars

1 watching

0 forks

Releases

No releases published

Create a new release

Packages

No packages published

The screenshot shows the content of the 'Jenkinsfile' in the repository. The file is a Jenkins pipeline script with two stages: 'Clone Repository' and 'Install Dependencies'. The 'Clone Repository' stage clones the repository from GitHub. The 'Install Dependencies' stage creates a virtual environment, installs dependencies, and ensures setuptools is installed. The 'Run Tests' stage is optional and runs tests inside the virtual environment.

Python_jenkins/Jenkinsfile

67%

Files

main

Go to file

tests

Jenkinsfile

requirements.txt

setup.py

Bhargavkulla initial 362bcd6 · 2 hours ago History

Code Blame 58 lines (58 loc) · 1.78 KB Code 55% faster with GitHub Copilot

```
1 pipeline {
2   agent any
3
4   stages {
5     // Stage 1: Clone Repository from Github
6     stage('Clone Repository') {
7       steps {
8         git url: 'https://github.com/Prsingh0/python-app-buid.git', branch: 'main'
9       }
10    }
11
12    // Stage 2: Create Virtual Environment and Install Dependencies
13    stage('Install Dependencies') {
14      steps {
15        // Create a virtual environment
16        sh 'python3 -m venv venv'
17
18        // Install dependencies inside the virtual environment
19        sh './venv/bin/pip install -r requirements.txt'
20
21        // Ensure setuptools is installed in the virtual environment
22        sh './venv/bin/pip install setuptools'
23      }
24    }
25
26    // Stage 3: Run Tests (optional)
27    stage('Run Tests') {
28      when {
29        expression {
30          return fileExists('tests')
31        }
32      }
33      steps {
34        // Run tests inside the virtual environment
35        sh './venv/bin/pytest tests/'
36      }
37    }
38  }
```

Activate Windows

Go to Settings to activate Windows.

Workstation | Python-App [Jenkins] | Python_jenkins/Jenkinsfile

https://github.com/Bhargavkulla/Python_jenkins/blob/main/Jenkinsfile

Python_jenkins / Jenkinsfile

```
21 // Ensure setuptools is installed in the virtual environment
22 sh './venv/bin/pip install setuptools'
23 }
24 }
25
26 // Stage 3: Run Tests (optional)
27 stage('Run Tests') {
28   when {
29     expression {
30       return FileExists('tests')
31     }
32   }
33   steps {
34     // Run tests inside the virtual environment
35     sh './venv/bin/pytest tests/'
36   }
37 }
38
39 // Stage 4: Build Artifact (Python package)
40 stage('Build Artifact') {
41   steps {
42     // Make sure setuptools is explicitly used before building
43     sh './venv/bin/pip install setuptools'
44
45     // Build the Python package using setup.py
46     sh './venv/bin/python setup.py sdist'
47   }
48 }
49
50 // Stage 5: Archive Build Artifacts
51 stage('Archive Artifact') {
52   steps {
53     // Archive the generated artifact (e.g., *.tar.gz)
54     archiveArtifacts artifacts: 'dist/*.tar.gz', fingerprint: true
55   }
56 }
57 }
58 }
```

Activate Windows
Go to Settings to activate Windows.

Workstation | Python-App [Jenkins] | Python_jenkins/Jenkinsfile

localhost:8080/job/Python-App/

Jenkins

Dashboard > Python-App >

Status Python-App

Changes

Build Now

Configure

Delete Pipeline

Full Stage View

Favorite

Open Blue Ocean

Stages

Rename

Pipeline Syntax

Builds

Filter

Today

- #6 12:37 PM
- #5 12:06 PM
- #4 12:03 PM
- #3 12:00 PM
- #2 11:55 AM

Stage View

Average stage times: (Full run time: ~27s)

	Declarative: Checkout SCM	Clone Repository	Install Dependencies	Run Tests	Build Artifact	Archive Artifact
1s	1s	16s	1s	2s	302ms	

Permalinks

- Last build (#6), 6 min 47 sec ago
- Last stable build (#6), 6 min 47 sec ago
- Last successful build (#6), 6 min 47 sec ago
- Last failed build (#5), 38 min ago
- Last unsuccessful build (#5), 38 min ago
- Last completed build (#6), 6 min 47 sec ago

Activate Windows
Go to Settings to activate Windows.

Workstation | Python-App #6 Console | Python_jenkins/Jenkinsfile | Master | Node1 | WinNode2

localhost:8080/job/Python-App/6/console

Jenkins

Dashboard > Python-App > #6

Status | Changes | Console Output | Edit Build Information | Delete build '#6' | Timings | Git Build Data | See Fingerprints | Open Blue Ocean | Pipeline Overview | Pipeline Console | Restart from Stage | Replay | Pipeline Steps | Workspaces | Previous Build

Console Output

Download | Copy | View as plain text

```
Started by user admin
Obtained Jenkinsfile from git https://github.com/Bhargavkulla/Python_jenkins.git
[Pipeline] Start of Pipeline
[Pipeline] node
Running on Jenkins in /var/lib/jenkins/workspace/Python-App
[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
> git rev-parse --resolve-git-dir /var/lib/jenkins/workspace/Python-App/.git # timeout=10
Fetching changes from the remote Git repository
> git config remote.origin.url https://github.com/Bhargavkulla/Python_jenkins.git # timeout=10
Fetching upstream changes from https://github.com/Bhargavkulla/Python_jenkins.git
> git --version # timeout=10
> git --version # 'git version 2.43.0'
> git fetch --tags --force --progress -- https://github.com/Bhargavkulla/Python_jenkins.git +refs/heads/*:refs/remotes/origin/* # timeout=10
> git rev-parse refs/remotes/origin/main^{commit} # timeout=10
Checking out Revision 362bcd6b20578624926282ff5b468ca3798fbc14 (refs/remotes/origin/main)
> git config core.sparsecheckout # timeout=10
> git checkout -f 362bcd6b20578624926282ff5b468ca3798fbc14 # timeout=10
Commit message: "initial"
First time build. Skipping changelog.
[Pipeline] }
[Pipeline] // stage
[Pipeline] withEnv
[Pipeline] {
[Pipeline] stage
```

Workstation | Python-App #6 Console | Python_jenkins/Jenkinsfile | Master | Node1 | WinNode2

localhost:8080/job/Python-App/6/console

To exit full screen, press **Esc**

Jenkins

Dashboard > Python-App > #6

```
running check
creating your_python_app-0.1
creating your_python_app-0.1/tests
creating your_python_app-0.1/your_python_app.egg-info
copying files to your_python_app-0.1...
copying setup.py -> your_python_app-0.1
copying tests/test_sample.py -> your_python_app-0.1/tests
copying your_python_app.egg-info/PKG-INFO -> your_python_app-0.1/your_python_app.egg-info
copying your_python_app.egg-info/SOURCES.txt -> your_python_app-0.1/your_python_app.egg-info
copying your_python_app.egg-info/dependency_links.txt -> your_python_app-0.1/your_python_app.egg-info
copying your_python_app.egg-info/entry_points.txt -> your_python_app-0.1/your_python_app.egg-info
copying your_python_app.egg-info/requires.txt -> your_python_app-0.1/your_python_app.egg-info
copying your_python_app.egg-info/top_level.txt -> your_python_app-0.1/your_python_app.egg-info
copying your_python_app.egg-info/SOURCES.txt -> your_python_app-0.1/your_python_app.egg-info
Writing your_python_app-0.1/setup.cfg
creating dist
Creating tar archive
removing 'your_python_app-0.1' (and everything under it)
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Archive Artifact)
[Pipeline] archiveArtifacts
Archiving artifacts
Recording fingerprints
[Pipeline] }
[Pipeline] // stage
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // node
[Pipeline] // End of Pipeline
Finished: SUCCESS
```