

Q. Jenkins pipeline

The image shows two screenshots of a GitHub repository named 'Jenkins_Pipeline' by user 'KPk25'.

Top Screenshot: Repository Overview

- URL: https://github.com/KPk25/Jenkins_Pipeline
- Repository name: **Jenkins_Pipeline** (Public)
- Navigation tabs: Code, Issues, Pull requests, Actions, Projects, Wiki, Security, Insights, Settings.
- Buttons: Pin, Watch, Fork (0), Star (0).
- Branches: main (selected), Branches, Tags.
- Search: Go to file.
- Commits: 4 Commits.
- Files: jenkinsfile, README.
- README section: "Add a README" with a button to "Add a README".
- Right sidebar: 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).

Bottom Screenshot: Jenkinsfile Content

- URL: https://github.com/KPk25/Jenkins_Pipeline/blob/main/Jenkinsfile
- File: jenkinsfile (30 Lines (26 loc) - 569 Bytes).
- Code view showing the Jenkinsfile content:

```
1 pipeline {
2   agent any
3
4   stages {
5     stage('Clone Repository') {
6       steps {
7         // Explicitly specify the branch you want to checkout
8         git url: 'https://github.com/KPk25/Jenkins_Pipeline.git', branch: 'main' // or 'master' if that's your default
9       }
10    }
11
12    stage('Build') {
13      steps {
14        sh 'echo "Building the application"'
15      }
16    }
17
18    stage('Test') {
19      steps {
20        sh 'echo "Running tests..."'
21      }
22    }
23
24    stage('Deploy') {
25      steps {
26        sh 'echo "Deploying application"'
27      }
28    }
29  }
30 }
```

Workstation | Dashboard [Jenkins] | Jenkins_Pipeline/Jenkins! | Git Repository Connectio | Master | Node1 | WinNode2 | localhost:8080

Jenkins

admin | log out

Dashboard >

+ New Item Add description

Build History

Project Relationship

Check File Fingerprint

Manage Jenkins

My Views

Open Blue Ocean

S	W	Name	Last Success	Last Failure	Last Duration	F
✓	☁	Trial_Pipeline	2 hr 12 min #7	2 hr 16 min #6	9.3 sec	▶ ☆

Icon: S M L

Build Queue

No builds in the queue.

Build Executor Status

Built-in Node 0/2

Activate Windows
Go to Settings to activate Windows.

Workstation | Trial_Pipeline [Jenkins] | Jenkins_Pipeline/Jenkins! | Git Repository Connectio | Master | Node1 | WinNode2 | localhost:8080/job/Trial_Pipeline/

Jenkins

admin | log out

Dashboard > Trial_Pipeline >

Status ✓ Trial_Pipeline Add description

</> Changes

▶ Build Now

⚙ Configure

🗑 Delete Pipeline

🔍 Full Stage View

☆ Favorite

🌐 Open Blue Ocean

📁 Stages

✎ Rename

🔍 Pipeline Syntax

Stage View

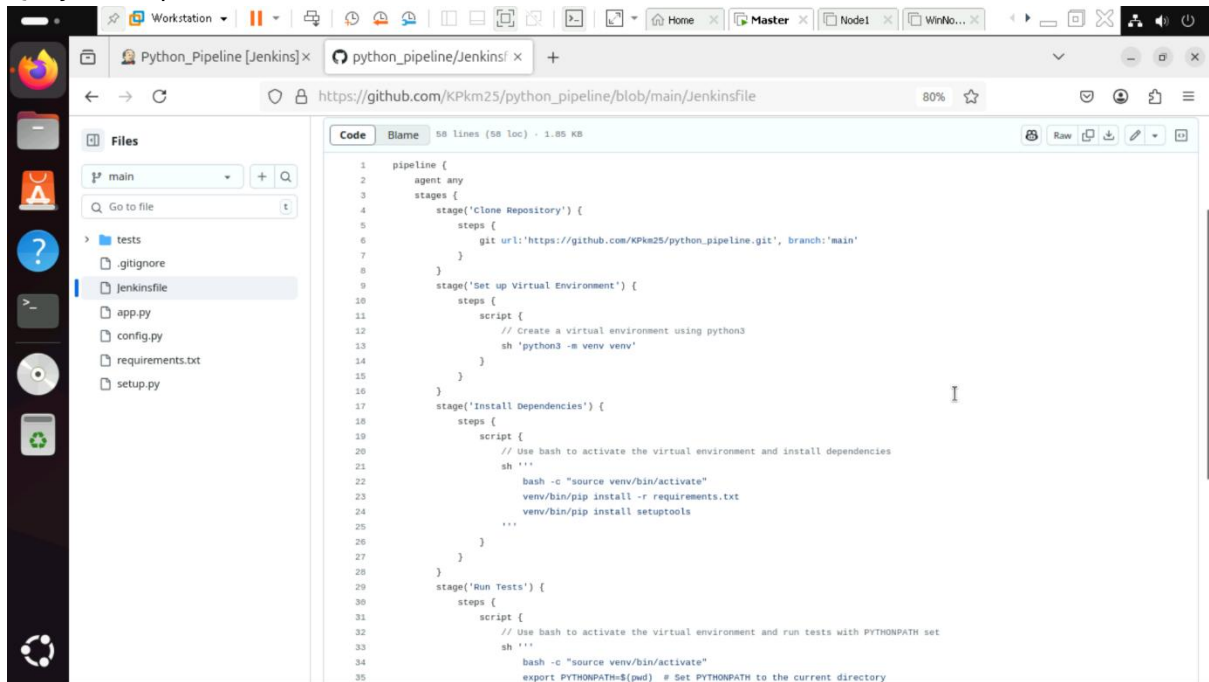
Average stage times: (full run time: ~9s)

	Declarative: Checkout SCM	Clone Repository	Build	Test	Deploy
15:32 1	1s	1s	637ms	427ms	448ms
15:28 No Changes	1s	1s	782ms	661ms	728ms
15:28					

Activate Windows
Go to Settings to activate Windows.

Assignment 2

Q. Python Pipeline in Jenkins



```
1 pipeline {
2   agent any
3   stages {
4     stage('Clone Repository') {
5       steps {
6         git url:'https://github.com/KPkm25/python_pipeline.git', branch:'main'
7       }
8     }
9     stage('Set up Virtual Environment') {
10      steps {
11        script {
12          // Create a virtual environment using python3
13          sh 'python3 -m venv venv'
14        }
15      }
16    }
17    stage('Install Dependencies') {
18      steps {
19        script {
20          // Use bash to activate the virtual environment and install dependencies
21          sh '''
22            bash -c "source venv/bin/activate"
23            venv/bin/pip install -r requirements.txt
24            venv/bin/pip install setuptools
25          '''
26        }
27      }
28    }
29    stage('Run Tests') {
30      steps {
31        script {
32          // Use bash to activate the virtual environment and run tests with PYTHONPATH set
33          sh '''
34            bash -c "source venv/bin/activate"
35            export PYTHONPATH=${PWD} # Set PYTHONPATH to the current directory
```

Workstation Python_Pipeline [Jenkins] x python_pipeline/Jenkinsfile

https://github.com/KPkm25/python_pipeline/blob/main/Jenkinsfile

Files

- main
- tests
- .gitignore
- Jenkinsfile
- app.py
- config.py
- requirements.txt
- setup.py

```
python_pipeline / Jenkinsfile
28 }
29 stage('Run Tests') {
30     steps {
31         script {
32             // Use bash to activate the virtual environment and run tests with PYTHONPATH set
33             sh '''
34                 bash -c "source venv/bin/activate"
35                 export PYTHONPATH=$(pwd) # Set PYTHONPATH to the current directory
36                 venv/bin/pytest tests/
37             '''
38         }
39     }
40 }
41 stage('Build Artifact') {
42     steps {
43         script {
44             // Use bash to activate the virtual environment and build the artifact
45             sh '''
46                 bash -c "source venv/bin/activate"
47                 venv/bin/python setup.py sdist
48             '''
49         }
50     }
51 }
52 stage('Archive Artifact') {
53     steps {
54         archiveArtifacts artifacts: 'dist/*.tar.gz', fingerprint: true
55     }
56 }
57 }
58 }
```

Workstation Python_Pipeline [Jenkins] x python_pipeline/Jenkinsfile

localhost:8080/job/Python_Pipeline/

Jenkins

Dashboard > Python_Pipeline

Status Python_Pipeline Add description

Changes

Build Now

Configure

Delete Pipeline

Full Stage View

Favorite

Open Blue Ocean

Stages

Rename

Pipeline Syntax

Last Successful Artifacts

flask_app-0.1.0.tar.gz 1.39 KiB view

Stage View

Average stage times: (full run time: ~21s)

	Declarative: Checkout SCM	Clone Repository	Set up Virtual Environment	Install Dependencies	Run Tests	Build Artifact
#14 Feb 20 12:10 1 commit	1s	1s	4s	6s	3s	1s
#13 Feb 20 12:10 1 commit	1s	1s	6s	3s	2s	524ms