

Software Engineering

Jenkins Assignment

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Section: CSE-4

(All of the files)

The screenshot shows the Jenkins dashboard with a list of jobs in the build queue. The jobs are:

S	W	Name	Last Success	Last Failure	Last Duration
○	○	JobA	16 min #2	N/A	53 ms
○	○	JobB	15 min #4	N/A	1.2 sec
○	○	JobC-AutoBuild	1 min 24 sec #6	N/A	0.96 sec
○	○	JobD	N/A	N/A	N/A
○	○	JobE	3 min 10 sec #3	N/A	1.9 sec
○	○	JobF	1 min 16 sec #3	N/A	3.9 sec

Task 1: Job A

The screenshot shows the Jenkins job console output for build #2 of Job A. The output is as follows:

```
Started by user Stuti Garg
Running as SYSTEM
Building in workspace /var/jenkins_home/workspace/JobA
[JobA] $ /bin/sh -e /tmp/jenkins143889181632332147.sh
+ echo Full Name: Stuti Garg
Name: Stuti Garg
+ echo Roll Number: se22ucse263
Roll Number: se22ucse263
+ echo BUILD_NUMBER=2
BUILD_NUMBER=2
+ echo JOB_NAME=JobA
JOB_NAME=JobA
+ echo Some sample data
Some sample data
Finished: SUCCESS
```

Task 2: Job B

The screenshot shows the Jenkins interface for Job B. The left sidebar has links for Status, Changes, Console Output (which is selected), Edit Build Information, Delete build #4, Timings, Git Build Data, and Previous Build. The main area is titled "Console Output" with a green checkmark icon. It displays the command-line output of the build:

```
Started by user Stuti Garg
Running as SYSTEM
Building in workspace /var/jenkins_home/workspace/JobB
Selected Git installation does not exist. Using Default
The recommended git tool is: NONE
No credentials specified
> git rev-parse --resolve-git-dir /var/jenkins_home/workspace/JobB/.git # timeout=10
Fetching changes from the remote Git repository
> git config remote.origin.url https://github.com/avinash-chauhan-mu/Jenkins # timeout=10
Fetching upstream changes from https://github.com/avinash-chauhan-mu/Jenkins
> git fetch --tags --force --progress -- https://github.com/avinash-chauhan-mu/Jenkins +refs/heads/*:refs/remotes/origin/*
> git rev-parse refs/remotes/origin/main^(commit) # timeout=10
Checking out Revision 8d8c86c9344577b5fe05914fcfa3f671d7e28 # timeout=10
Commit message: "Update README.md"
> git rev-list --no-walk 8d8c86c9344577b5fe05914fcfa3f671d7e28 # timeout=10
[jobB] $ /bin/sh -xe /tmp/jenkins1099874004632877669.sh
+ echo Roll Number: Se22uce263
Roll Number: Se22uce263
+ python3 helworldid.py
Hello world
Update: This update will reflect once Jenkins auto builds after 5 minutes.
Update 2: Testing once more, just to be sure.
Update 3: Whooh, we really are doing this!
Update 4: We are on a roll!
Finished: SUCCESS
```

At the bottom right, it says "REST API Jenkins 2.492.3".

Task 3: Job C

The screenshot shows the Jenkins interface for Job C. The left sidebar has links for Status, Changes, Console Output (selected), Edit Build Information, Delete build #5, Timings, Git Build Data, and Previous Build. The main area is titled "Console Output" with a green checkmark icon. It displays the command-line output of the build:

```
Started by user Stuti Garg
Running as SYSTEM
Building in workspace /var/jenkins_home/workspace/JobC-AutoBuild
The recommended git tool is: NONE
No credentials specified
> git rev-parse --resolve-git-dir /var/jenkins_home/workspace/JobC-AutoBuild/.git # timeout=10
Fetching changes from the remote Git repository
> git config remote.origin.url https://github.com/stutig12/Jenkins # timeout=10
Fetching upstream changes from https://github.com/stutig12/Jenkins
> git fetch --tags --force --progress -- https://github.com/stutig12/Jenkins +refs/heads/*:refs/remotes/origin/*
> git rev-parse refs/remotes/origin/main^(commit) # timeout=10
Checking out Revision 10ffea215ff9a46240c207adcb37831c32d8cc09 # timeout=10
Commit message: "First time build. Skipped changelog."
[jobC-AutoBuild] $ /bin/sh -xe /tmp/jenkins1275546268869385677.sh
+ echo Roll Number: Se22uce263
Roll Number: Se22uce263
+ python3 helworldid.py
Hello world
Update: This update will reflect once Jenkins auto builds after 5 minutes.
Update 2: Testing once more, just to be sure.
Update 3: Whooh, we really are doing this!
Update 4: We are on a roll!
autobuild
Finished: SUCCESS
```

At the bottom right, it says "REST API Jenkins 2.492.3".

Task 4: Docker Cloud and Job D

The screenshot shows the Jenkins interface for a job named 'JobD'. On the left, there's a sidebar with options like Status, Changes, Workspace, Build Now, Configure, Delete Project, and Rename. The main area is titled 'JobD' and contains a 'Builds' section. A message at the top of this section says 'Jenkins doesn't have label 'docker-agent''. Below this, there's a table with one row, showing an icon of a cloud and the name 'docker'.

The screenshot shows the Jenkins 'Clouds' configuration page. At the top, there's a header with 'Manage Jenkins > Clouds'. Below it, a table lists a single cloud entry with the name 'docker'. There are also buttons for '+ New cloud' and a refresh icon.

Jenkins

Dashboard > Manage Jenkins > Clouds > docker > Configure

Cloud docker Configuration

Name: docker

Docker Cloud details:

- Docker Host URI: tcp://172.18.0.2:2375
- Server credentials: - none -
- + Add

Advanced:

- Version = 28.0.4, API Version = 1.48
- Test Connection
- Enabled:
- Error Duration: Default = 300
- Expose DOCKER_HOST
- Container Cap: ...

Save Apply

Jenkins

Dashboard > Manage Jenkins > Clouds > docker > Configure

Cloud docker Configuration

Name: docker

Docker Cloud details:

Docker Agent templates:

Docker Agent templates (List of Images to be launched as agents)

Docker Agent template configuration:

- Labels: docker-agent
- Enabled:
Note: Disabled 3 min 37 sec ago due to error. Will re-enable in 1 min 22 sec.
Reason: Template provisioning failed. (show details)
- Name: python-agent
- Docker Image: python3.8
- Registry Authentication: ...
- Container settings: ...

Save Apply

The screenshot shows the 'Cloud docker Configuration' page in Jenkins. The 'Configure' tab is selected. A 'Name' field contains 'docker'. Under 'Docker Cloud details', the 'Docker Host URI' is set to 'tcp://172.18.0.2:2375'. The 'Server credentials' dropdown is set to 'none'. An 'Advanced' section shows 'Version = 2.6.0-A, API Version = 1.48', 'Enabled' status, and an 'Error Duration' of 'Default = 300'. There are checkboxes for 'Expose DOCKER_HOST' and 'Container Cap'. At the bottom are 'Save' and 'Apply' buttons.

Task 5: Job E

The screenshot shows the 'Console Output' page for a Jenkins job named 'Job E'. The output shows a Jenkins pipeline script being run on a node. The log starts with 'Started by user Stuti Garg' and includes steps like 'Start of Pipeline', 'Running on Jenkins in /var/jenkins_home/workspace/JobE', and various pipeline stages. It also shows a git fetch operation from a GitHub repository and a checkout step. The output ends with '[Pipeline]}'.

```
Started by user Stuti Garg
[Pipeline] Start of Pipeline
[Pipeline] node
Running on Jenkins in /var/jenkins_home/workspace/JobE
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Print Info)
[Pipeline] echo
Name: Stuti Garg
[Pipeline] echo
[Pipeline] echo
Add Node 3222C5F2263
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Clone Git Repo)
[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/jenkins_home/workspace/JobE/.git # timeout=10
> git config remote.origin.url https://github.com/adnan-chauhan-mu/jenkins # timeout=10
> git config remote.origin.fetch +refs/heads/*:refs/remotes/origin/*
Fetching upstream changes from https://github.com/adnan-chauhan-mu/jenkins
> git -version # timeout=10
> git --version # 'git' version 2.39.5'
> git fetch --tags --progress -- https://github.com/adnan-chauhan-mu/jenkins +refs/heads/*:refs/remotes/origin/*
> git rev-parse refs/remotes/origin/main^{commit} # timeout=10
Checking out Revision 8d9c86cbc93445775fe0e95914fc4a3f071d74e20 (refs/remotes/origin/main)
> git config core.sparsecheckout # timeout=10
> git checkout -f 8d9c86cbc93445775fe0e95914fc4a3f071d74e20 # timeout=10
> git branch --no-abbrev # timeout=10
> git checkout -b main 8d9c86cbc93445775fe0e95914fc4a3f071d74e20 # timeout=10
Commit message: "Update release note"
> git rev-list --no-walk 8d9c86cbc93445775fe0e95914fc4a3f071d74e20 # timeout=10
[Pipeline] }
```

```
Dashboard > JobE > #3

Replay
Pipeline Steps
Workspaces
Previous Build

[Pipeline] { (Clone Git Repo)
[Pipeline] git
Selected Git installation does not exist. Using Default
The repository git+ssh://git@github.com:avinash-chauhan-mu/jenkins.git was not found
No credentials specified
+ git rev-parse --resolve-git-dir /var/jenkins_home/workspace/JobE/.git # timeout=10
Fetching changes from the remote Git repository
+ git config remote.origin.url https://github.com/avinash-chauhan-mu/jenkins
+ git config remote.origin.fetch +refs/heads/*:refs/remotes/origin/*
+ git fetch --tags --force
+ git rev-parse refs/remotes/origin/main^(committer) # timeout=10
Checking out Revision 8d8c86cc934457705fe05914fc4a3f671d74e20 (refs/remotes/origin/main)
+ git config core.sparsecheckout # timeout=10
+ git config core.sparsecheckout # timeout=10
+ git config core.sparsecheckout # timeout=10
+ git branch -v --no-color # timeout=10
+ git branch -D main # timeout=10
+ git checkout -b main 8d8c86cc934457705fe05914fc4a3f671d74e20 # timeout=10
Commit message: "Update readme.md"
+ git rev-list --no-walk 8d8c86cc934457705fe05914fc4a3f671d74e20 # timeout=10
[Pipeline]
[Pipeline] // stage
[Pipeline] stages
[Pipeline] { (Run Python Script)
[Pipeline] sh
+ python3 helloWorld.py
Hello World!
Update: This update will reflect once Jenkins auto builds after 5 minutes.
Update 2: Testing once more, just to be sure.
Update 3: Wow, we really are doing this!
Update 4: We are on a roll!
[Pipeline]
[Pipeline] // stage
[Pipeline]
[Pipeline] // node
[Pipeline] End of Pipeline
Finished: SUCCESS
```

Task 6: Job F

Jenkins

Dashboard > JobF > #3

Status Changes Console Output Edit Build Information Delete build #3 Timings Git Build Data Git Build Data Pipeline Overview Pipeline Console Restart from Stage Reply Pipeline Steps Workspaces Previous Build

Console Output

Started by user Stuti Garg
Obtained Jenkinsfile_locagent from git <https://github.com/stutig12/jenkins>
[Pipeline] Start of Pipeline
[Pipeline] node
Running on Jenkins in /var/jenkins_home/workspace/JobF
[Pipeline] {
[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 --abbrev-ref HEAD >/var/jenkins_home/workspace/JobF/.git # timeout=10
Fetching upstream changes from https://github.com/stutig12/jenkins # timeout=10
Fetching upstream changes from https://github.com/stutig12/jenkins
> git config remote.origin.url https://github.com/stutig12/jenkins
Fetching upstream changes from https://github.com/stutig12/jenkins
> git -version # timeout=10
> git -version # "git version 2.39.5"
> git fetch --tags --force --progress -- https://github.com/stutig12/jenkins +refs/heads/*:refs/remotes/origin/* # timeout=10
> git rev-parse refs/remotes/origin/main^{commit} # timeout=10
Checking out Revision 7ed05245d05620b082fc7e0762ee9b0725069 (refs/remotes/origin/main)
> git config core.sparsecheckout # timeout=10
> git checkout 7ed05245d05620b082fc7e0762ee9b0725069 # timeout=10
Commit message: "Update Jenkinsfile_locagent"
First time build. Skipping changes.
[Pipeline] {
[Pipeline] } // stage
[Pipeline] withEnv
[Pipeline] {
[Pipeline] }
[Pipeline] stage
[Pipeline] { (Print Info)
[Pipeline] }
[Pipeline] {
 name: Stuti Garg
 [Pipeline] echo
 Roll No: S522UKS5203
 [Pipeline] }
Download Copy View as plain text

```
Dashboard > JobF > #3
+ Roll No: SE22UCSE263
[Pipeline] }
[Pipeline] stage
[Pipeline] stage
[Pipeline] { (Clone)
[Pipeline] git
Selected git tool installation does not exist. Using Default
The recommended git tool is: NONE
No credentials specified
> git rev-parse --resolve-git-dir /var/jenkins_home/workspace/JobF/.git # timeout=10
Fetching changes from the remote Git repository
> git config --get remote.origin.url https://github.com/avinash-chauhan-mu/Jenkins # timeout=10
Fetching upstream changes from https://github.com/avinash-chauhan-mu/Jenkins
> git --version # timeout=10
git version 2.39.5'
> git --version # 'git version 2.39.5'
> git fetch --tags --force --progress -- https://github.com/avinash-chauhan-mu/Jenkins +refs/heads/*{refs/remotes/origin/*} # timeout=10
> git rev-parse refs/remotes/origin/main^{commit} # timeout=10
Checking out Revision 8d9c8cc39457d5f0e5914fc4a3f671d74e28 (refs/remotes/origin/main)
> git config core.sparsecheckout # timeout=10
> git checkout -b main b9a5c8cc39457d5f0e5914fc4a3f671d74e28 # timeout=10
> git pull --rebase --quiet # timeout=10
> git branch -a # timeout=10
> git checkout -b main b9a5c8cc39457d5f0e5914fc4a3f671d74e28 # timeout=10
Commit message: "Update README.md"
> git rev-list --no-walk b9a5c8cc39457d5f0e5914fc4a3f671d74e28 # timeout=10
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Run Script)
[Pipeline] sh
+ python3 helloworld.py
Hello world
Upvote! This update will reflect once Jenkins auto builds after 5 minutes.
Update 2: Testing once more, just to be sure.
Update 3: Wow, we really are doing this!
Update 4: We are on a roll!
[Pipeline] }
[Pipeline] // stage
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // node
[Pipeline] End of Pipeline
```