

TASK 2

Step 1: Open Jenkins and click "**New Item.**"

Step 2: Enter a project name, select "**Pipeline,**" then click **OK.**

Step 3: In the **General** tab, scroll down to the "**Pipeline**" section.

Step 4: Under "**Definition,**" select "**Pipeline script from SCM.**"

Step 5: In the **SCM** field, choose "**Git,**" then enter your GitHub repository URL.

Step 6: Ensure your GitHub repository contains the following files:

- app.py (Application code)
- Dockerfile (Instructions to build the Docker image)
- docker-compose.yml (For container orchestration)
- Jenkinsfile (Defines the pipeline stages)
- requirements.txt (Dependencies for the application)

Step 7: Click "**Save**" to apply the configuration.

Step 8: On the project page, click "**Build Now**" to start the job.

Step 9: The build status will appear in the **Build History** panel (left-side panel).

Step 10: Click on the latest build (#1, #2, etc.) and select "**Console Output**" to view logs and results.

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localhost:8080/job/cicd/3/console

Jenkins

Dashboard > cicd > #3

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

Console Output

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```
Started by user Indhu varshni M S
Obtained Jenkinsfile from git https://github.com/Indhuvarshni24/jenkins
[Pipeline] Start of Pipeline
[Pipeline] node
Running on Jenkins in /var/lib/jenkins/workspace/cicd
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Declarative: Checkout SCM)
[Pipeline] checkout
Selected Git installation does not exist. Using Default
The recommended git tool is: NONE
using credential github
> git rev-parse --resolve-git-dir /var/lib/jenkins/workspace/cicd/.git # timeout=10
Fetching changes from the remote Git repository
> git config remote.origin.url https://github.com/Indhuvarshni24/jenkins # timeout=10
Fetching upstream changes from https://github.com/Indhuvarshni24/jenkins
> git --version # timeout=10
> git --version # 'git version 2.34.1'
using GIT_ASKPASS to set credentials
> git fetch --tags --force --progress -- https://github.com/Indhuvarshni24/jenkins
+refs/heads/*:refs/remotes/origin/* # timeout=10
```

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localhost:8080/job/cicd/3/console

Jenkins

Dashboard > cicd > #3

Workspaces Previous Build

```
using GIT_ASKPASS to set credentials
> git fetch --tags --force --progress -- https://github.com/Indhuvarshni24/jenkins
+refs/heads/*:refs/remotes/origin/* # timeout=10
> git rev-parse refs/remotes/origin/main^(commit) # timeout=10
Checking out Revision 577a5e0ccfb02542f78ddd3ef91ecaad09c3c238 (refs/remotes/origin/main)
> git config core.sparsecheckout # timeout=10
> git checkout -f 577a5e0ccfb02542f78ddd3ef91ecaad09c3c238 # timeout=10
Commit message: "Update Jenkinsfile"
> git rev-list --no-walk 577a5e0ccfb02542f78ddd3ef91ecaad09c3c238 # timeout=10
[Pipeline] }
[Pipeline] // stage
[Pipeline] withEnv
[Pipeline] {
[Pipeline] withEnv
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Checkout Code)
[Pipeline] git
Selected Git installation does not exist. Using Default
The recommended git tool is: NONE
using credential github
> git rev-parse --resolve-git-dir /var/lib/jenkins/workspace/cicd/.git # timeout=10
Fetching changes from the remote Git repository
> git config remote.origin.url https://github.com/Indhuvarshni24/jenkins.git # timeout=10
Fetching upstream changes from https://github.com/Indhuvarshni24/jenkins.git
> git --version # timeout=10
> git --version # 'git version 2.34.1'
```

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localhost:8080/job/cicd/3/console

Dashboard > cicd > #3

```
git rev-parse refs/remotes/origin/* # timeout=10
+refs/heads/*:refs/remotes/origin/* # timeout=10
> git rev-parse refs/remotes/origin/* # timeout=10
Checking out Revision 577a5e0ccfb02542f78dd3ef91ecaad09c3c238 (refs/remotes/origin/main)
> git config core.sparsecheckout # timeout=10
> git checkout -f 577a5e0ccfb02542f78dd3ef91ecaad09c3c238 # timeout=10
> git branch -a -v --no-abbrev # timeout=10
> git branch -D main # timeout=10
> git checkout -b main 577a5e0ccfb02542f78dd3ef91ecaad09c3c238 # timeout=10
Commit message: "Update Jenkinsfile"
[Pipeline]
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Build Docker Image)
[Pipeline] script
[Pipeline] {
[Pipeline] sh
+ docker build -t indhuvarshni/myapp:latest .
#0 building with "default" instance using docker driver

#1 [internal] load build definition from Dockerfile
#1 transferring dockerfile: 471B done
#1 DONE 0.0s

#2 [internal] load metadata for docker.io/library/python:3.11-slim
#2 ....

#3 [auth] library/python:pull token for registry-1.docker.io
```

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localhost:8080/job/cicd/3/console

Dashboard > cicd > #3

```
#3 DONE 0.0s

#2 [internal] load metadata for docker.io/library/python:3.11-slim
#2 DONE 3.2s

#4 [internal] load .dockerignore
#4 transferring context: 2B done
#4 DONE 0.0s

#5 [1/5] FROM docker.io/library/python:3.11-slim@sha256:7629b00486ac40bed03e36775b864d3fd39dcdbf19cd45e6a52d541e6c178f0
#5 DONE 0.0s

#6 [internal] load build context
#6 transferring context: 6.26kB 0.0s done
#6 DONE 0.0s

#7 [3/5] COPY requirements.txt /app/
#7 CACHED

#8 [2/5] WORKDIR /app
#8 CACHED

#9 [4/5] RUN pip install --no-cache-dir -r requirements.txt
#9 CACHED

#10 [5/5] COPY . /app
#10 DONE 0.1s
```

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