

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.

Activities Firefox Mar 19 16:29

Fwd: Doc CID #x Docker Jenkins divyadha Divyadha Update Fwd: - di Jenkins/ Setup Ku + -

localhost:8080/job/CICD/18/console 80%

Jenkins

Dashboard > CICD > #18

Status Changes Console Output Build Information Delete build '#18' Runnings Git Build Data Pipeline Overview Pipeline Console Start from Stage Replay Pipeline Steps Workspaces Previous Build

Console Output

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```
Started by user Divyadharshini
Obtained Jenkinsfile from git https://github.com/DivyadharshiniA/jenkins.git
[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/DivyadharshiniA/jenkins.git # timeout=10
Fetching upstream changes from https://github.com/DivyadharshiniA/jenkins.git
> 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/DivyadharshiniA/jenkins.git +refs/heads/*:refs/remotes/origin/* # timeout=10
> git rev-parse refs/remotes/origin/main^{commit} # timeout=10
Checking out Revision 6fbb8e8077d06e178cdb586f9126699edf7be72a (refs/remotes/origin/main)
> git config core.sparsecheckout # timeout=10
> git checkout -f 6fbb8e8077d06e178cdb586f9126699edf7be72a # timeout=10
Commit message: "Update Jenkinsfile"
> git rev-list --no-walk 6fbb8e8077d06e178cdb586f9126699edf7be72a # timeout=10
[Pipeline] }
[Pipeline] // stage
```

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Fwd: Doc CID #x Docker Jenkins divyadha Divyadha Update Fwd: - di Jenkins/ Setup Ku + -

localhost:8080/job/CICD/18/console 80%

Jenkins

Dashboard > CICD > #18

```
[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/DivyadharshiniA/jenkins.git # timeout=10
Fetching upstream changes from https://github.com/DivyadharshiniA/jenkins.git
> 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/DivyadharshiniA/jenkins.git +refs/heads/*:refs/remotes/origin/* # timeout=10
> git rev-parse refs/remotes/origin/main^{commit} # timeout=10
Checking out Revision 6fbb8e8077d06e178cdb586f9126699edf7be72a (refs/remotes/origin/main)
> git config core.sparsecheckout # timeout=10
> git checkout -f 6fbb8e8077d06e178cdb586f9126699edf7be72a # timeout=10
> git branch -a -v --no-abbrev # timeout=10
> git branch -D main # timeout=10
> git checkout -b main 6fbb8e8077d06e178cdb586f9126699edf7be72a # timeout=10
Commit message: "Update Jenkinsfile"
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Build Docker Image)
[Pipeline] script
[Pipeline] {
[Pipeline] sh
+ docker build -t divyadharshinill/myapp:latest .
#0 building with "default" instance using docker driver
```

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Fwd: Do CICD # x Docker Jenkins divyadha Divyadha Update Fwd: - di Jenkins/ Setup Ku

localhost:8080/job/CICD/18/console 80%

> CICD > #18

```
[Pipeline] sh
+ docker build -t divyadharshinill/myapp:latest .
#0 building with "default" instance using docker driver

#1 [internal] load build definition from Dockerfile
#1 transferring dockerfile: 471B 0.1s done
#1 DONE 0.3s

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

#3 [auth] library/python:pull token for registry-1.docker.io
#3 DONE 0.0s

#2 [internal] load metadata for docker.io/library/python:3.11-slim
#2 DONE 5.6s

#4 [internal] load .dockerignore
#4 transferring context:
#4 transferring context: 2B 0.2s done
#4 DONE 0.8s

#5 [1/5] FROM docker.io/library/python:3.11-slim@sha256:7029b00486ac40bed03e36775b864d3f3d39dcdbf19cd45e6a52d541e6c178f0
#5 DONE 0.0s

#6 [internal] load build context
#6 transferring context: 14.88kB 3.2s done
#6 DONE 4.0s

#7 [2/5] WORKDIR /app
#7 CACHED

#8 [3/5] COPY requirements.txt /app/
#8 CACHED
```

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Fwd: Do CICD # x Docker Jenkins divyadha Divyadha Update Fwd: - di Jenkins/ Setup Ku

localhost:8080/job/CICD/18/console 80%

> CICD > #18

```
#8 [3/5] COPY requirements.txt /app/
#8 CACHED

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

#10 [5/5] COPY . /app
#10 DONE 4.6s

#11 exporting to image
#11 exporting layers
#11 exporting layers 1.8s done
#11 writing image sha256:d25c0ef47a02a58ca447490930e249e2b42d460a431b599dfbe32bc2a0f0d469
#11 writing image sha256:d25c0ef47a02a58ca447490930e249e2b42d460a431b599dfbe32bc2a0f0d469 0.3s done
#11 naming to docker.io/divyadharshinill/myapp:latest
#11 naming to docker.io/divyadharshinill/myapp:latest 0.4s done
#11 DONE 3.4s
[Pipeline] }
[Pipeline] // script
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Login to Docker Registry)
[Pipeline] script
[Pipeline] {
[Pipeline] withCredentials
Masking supported pattern matches of $DOCKER_PASS
[Pipeline] {
[Pipeline] sh
+ echo ****
+ docker login -u divyadharshinill --password-stdin
Login Succeeded
[Pipeline] }
[Pipeline] // withCredentials
```

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Fwd: Doc CICD # x Docker Jenkins divyadha Divyadha Update Fwd: di Jenkins/ Setup Ku +

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CICD > #18

```
2b4a3a12c816: Layer already exists
e2f88fe30c9c: Layer already exists
97d879c3dfa3: Layer already exists
1287fbecdfcc: Layer already exists
acc2665d5e8d: Pushed
latest: digest: sha256:52c040dbac4e6cde984213f40943a9e0326c2bf86aff5d91d4f3f9afc4ea69b6 size: 1992
[Pipeline] }
[Pipeline] // script
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Deploy using Docker Compose)
[Pipeline] script
[Pipeline] {
[Pipeline] sh
+ docker-compose up -d
Creating network "cicd_default" with the default driver
Pulling redis (redis:alpine)...
alpine: Pulling from library/redis
Digest: sha256:02419de7eddf55aa5bcf49efb74e88fa8d931b4d77c07eff8a6b2144472b6952
Status: Downloaded newer image for redis:alpine
Pulling db (postgres:alpine)...
alpine: Pulling from library/postgres
Digest: sha256:7062a2109c4b51f3c792c7ea01e83ed12ef9a980886e3b3d380a7d2e5f6ce3f5
Status: Downloaded newer image for postgres:alpine
Building app
#0 building with "default" instance using docker driver

#1 [internal] load build definition from Dockerfile
#1 transferring dockerfile:
#1 transferring dockerfile: 471B 0.1s done
#1 DONE 0.6s

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

Activities Firefox Mar 19 16:34

Fwd: Doc CICD # x Docker Jenkins divyadha Divyadha Update Fwd: di Jenkins/ Setup Ku +

localhost:8080/job/CICD/18/console 80%

CICD > #18

```
#10 [5/5] COPY . /app
#10 CACHED

#11 exporting to image
#11 exporting layers done
#11 writing image sha256:d25c0ef47a02a58ca447490930e249e2b42d460a431b599dfbe32bc2a0f0d469 0.1s done
#11 naming to docker.io/library/cicd_app
#11 naming to docker.io/library/cicd_app 0.2s done
#11 DONE 0.4s
Image for service app was built because it did not already exist. To rebuild this image you must use `docker-compose build` or `docker-compose up --build`.
Creating cicd_db_1 ...
Creating cicd_redis_1 ...
Creating cicd_db_1 ... done
Creating cicd_app_1 ...
Creating cicd_app_1 ... done
[Pipeline] }
[Pipeline] // script
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Declarative: Post Actions)
[Pipeline] echo
Pipeline executed successfully!
[Pipeline] }
[Pipeline] // stage
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // node
[Pipeline] End of Pipeline
Finished: SUCCESS
```