

# 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 Google Chrome Mar 19 20:13

t2 #23 Console - Jenkins x Docker Hub x Password | Docker x [Docker] Reset password x devops\_/Jenkinsfile at x +

localhost:8080/job/t2/23/console

# Jenkins

Dashboard > t2 > #23

- Status
- Changes
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- Edit Build Information
- Timings
- Git Build Data
- Pipeline Overview
- Pipeline Console
- Thread Dump
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- Pipeline Steps
- Workspaces
- Previous Build

## Console Output

Started by user Dhanushree R R

Obtained Jenkinsfile from git [https://github.com/Dhanushree1401/devops\\_](https://github.com/Dhanushree1401/devops_)

[Pipeline] Start of Pipeline

[Pipeline] node

Running on Jenkins in /var/lib/jenkins/workspace/t2

[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/t2/.git # timeout=10

Fetching changes from the remote Git repository

> git config remote.origin.url [https://github.com/Dhanushree1401/devops\\_](https://github.com/Dhanushree1401/devops_) # timeout=10

Fetching upstream changes from [https://github.com/Dhanushree1401/devops\\_](https://github.com/Dhanushree1401/devops_)

> 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/Dhanushree1401/devops\\_](https://github.com/Dhanushree1401/devops_) +refs/heads/\*:refs/remotes/origin/\* # timeout=10

> git rev-parse refs/remotes/origin/main^{commit} # timeout=10

Checking out Revision d7e5000b3e9da9ff90508f8fab180e07bba5db24 (refs/remotes/origin/main)

> git config core.sparsecheckout # timeout=10

> git checkout -f d7e5000b3e9da9ff90508f8fab180e07bba5db24 # timeout=10

Commit message: "Update Jenkinsfile"

> git rev-list --no-walk d7e5000b3e9da9ff90508f8fab180e07bba5db24 # 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/t2/.git # timeout=10

Fetching changes from the remote Git repository

> git config remote.origin.url [https://github.com/Dhanushree1401/devops\\_.git](https://github.com/Dhanushree1401/devops_.git) # timeout=10

Fetching upstream changes from [https://github.com/Dhanushree1401/devops\\_.git](https://github.com/Dhanushree1401/devops_.git)

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t2 #23 Console - Jenkins x Docker Hub x Password | Docker x [Docker] Reset password x devops\_/Jenkinsfile at x +

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Fetching changes from the remote Git repository

> git config remote.origin.url [https://github.com/Dhanushree1401/devops\\_.git](https://github.com/Dhanushree1401/devops_.git) # timeout=10

Fetching upstream changes from [https://github.com/Dhanushree1401/devops\\_.git](https://github.com/Dhanushree1401/devops_.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/Dhanushree1401/devops\\_.git](https://github.com/Dhanushree1401/devops_.git) +refs/heads/\*:refs/remotes/origin/\* # timeout=10

> git rev-parse refs/remotes/origin/main^{commit} # timeout=10

Checking out Revision d7e5000b3e9da9ff90508f8fab180e07bba5db24 (refs/remotes/origin/main)

> git config core.sparsecheckout # timeout=10

> git checkout -f d7e5000b3e9da9ff90508f8fab180e07bba5db24 # timeout=10

> git branch -a -v --no-abbrev # timeout=10

> git branch -D main # timeout=10

> git checkout -b main d7e5000b3e9da9ff90508f8fab180e07bba5db24 # timeout=10

Commit message: "Update Jenkinsfile"

[Pipeline] }

[Pipeline] // stage

[Pipeline] stage

[Pipeline] { ([Build Docker Image])

[Pipeline] script

[Pipeline] {

[Pipeline] sh

+ docker build -t dhanushree14/my-app:latest .

#0 building with "default" instance using docker driver

#1 [internal] load build definition from Dockerfile

#1 transferring dockerfile: 454B 0.0s done

#1 DONE 0.1s

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

#2 DONE 2.1s

#3 [internal] load .dockerignore

#3 transferring context: 2B 0.0s done

#3 DONE 0.1s

#4 [1/5] FROM docker.io/library/python:3.11-slimsha256:7029b00486ac40bed93e36775b864d3f3d39dcbdf19cd45e6a52d541e6c178f8

#4 DONE 0.9s

#5 [internal] load build context

#5 transferring context: 20.46kB 0.1s done

#5 DONE 0.4s

#6 [2/5] WORKDIR /app

#6 CACHED

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

#7 CACHED

Activities Google Chrome Mar 19 20:14

t2 #23 Console - Jenkins x Docker Hub x Password | Docker x [Docker] Reset password x devops/Jenkinsfile at x +

localhost:8080/job/t2/23/console

Dashboard > t2 > #23

```
#7 CACHED

#8 [4/5] RUN pip install --no-cache-dir -r requirements.txt
#8 CACHED

#9 [5/5] COPY . /app
#9 DONE 0.5s

#10 exporting to image
#10 exporting layers
#10 exporting layers 0.1s done
#10 writing image sha256:3b8fd3fc64bf98d2e55ba4afc5a1a4cc88e1319a3a23533557e8922697a9ac4
#10 writing image sha256:3b8fd3fc64bf98d2e55ba4afc5a1a4cc88e1319a3a23533557e8922697a9ac4 0.0s done
#10 naming to docker.io/dhanushree14/my-app:latest 0.0s done
#10 DONE 0.3s

[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 dhanushree14 --password-stdin

WARNING! Your credentials are stored unencrypted in '/var/lib/jenkins/.docker/config.json'.
Configure a credential helper to remove this warning. See
https://docs.docker.com/go/credential-store/

Login Succeeded
[Pipeline] }
[Pipeline] // withCredentials
[Pipeline] }
[Pipeline] // script
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Push Image to Docker Registry)
[Pipeline] script
[Pipeline] {
[Pipeline] sh
+ docker push dhanushree14/my-app:latest
The push refers to repository [docker.io/dhanushree14/my-app]
6c77fe1e6ffd: Preparing
```

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t2 #23 Console - Jenkins x Docker Hub x Password | Docker x [Docker] Reset password x devops/Jenkinsfile at x +

localhost:8080/job/t2/23/console

Dashboard > t2 > #23

```
+ docker push dhanushree14/my-app:latest
The push refers to repository [docker.io/dhanushree14/my-app]
6c77fe1e6ffd: Preparing
04776f6a36cf: Preparing
8e10480448fc: Preparing
c93edb99bea1: Preparing
e394d4c8757a: Preparing
97d879c3d3fa3: Preparing
e2f88fe30c9c: Preparing
1287fbecdfcc: Preparing
97d879c3d3fa3: Waiting
e2f88fe30c9c: Waiting
1287fbecdfcc: Waiting
e394d4c8757a: Mounted from library/python
c93edb99bea1: Pushed
8e10480448fc: Pushed
97d879c3d3fa3: Mounted from library/python
6c77fe1e6ffd: Pushed
04776f6a36cf: Pushed
e2f88fe30c9c: Retrying in 5 seconds
e2f88fe30c9c: Retrying in 4 seconds
e2f88fe30c9c: Retrying in 3 seconds
e2f88fe30c9c: Retrying in 2 seconds
e2f88fe30c9c: Retrying in 1 second
e2f88fe30c9c: Pushed
1287fbecdfcc: Pushed
latest: digest: sha256:bc46c270d4804153baca8278978eac74b3c8e9f7c7d94e99447271b01d0930be size: 1994
[Pipeline] }
[Pipeline] // script
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Deploy using Docker Compose)
[Pipeline] script
[Pipeline] {
[Pipeline] sh
+ docker-compose up -d
Creating network "t2_default" with the default driver
Pulling redis (redis:alpine)...
alpine: Pulling from library/redis
Digest: sha256:02419de7edd55aa3bcf49efb74e88fa8d931b4d77c07eff8a6b2144472b6952
Status: Downloaded newer image for redis:alpine
Pulling db (postgres:alpine)...
alpine: Pulling from library/postgres
Digest: sha256:7062a2109c4b51f3c792c7ea01e83ed12ef9a988886e3b3d388a7d2e5f6ce3f5
Status: Downloaded newer image for postgres:alpine
Building app
#0 building with "default" instance using docker driver
```

Activities Google Chrome Mar 19 20:17

t2 #23 Console - Jenkins x Docker Hub x Password | Docker x [Docker] Reset password x devops\_/Jenkinsfile at x +

localhost:8080/job/t2/23/console

Dashboard > t2 > #23

```

+3788e30c9c: Pulling in 0 seconds
+2f88fe30c9c: Pulling in 1 second
e2f88fe30c9c: Pushed
1287fbedcfc: Pushed
latest: digest: sha256:bc46c270d44804153baca8278978eac74b3c8e9f7c7d4de99447271b01d0936be size: 1994
[Pipeline] }
[Pipeline] // script
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { [Deploy using Docker Compose]
[Pipeline] script
[Pipeline] {
[Pipeline] sh
+ docker-compose up -d
Creating network "t2_default" with the default driver
Pulling redis (redis:alpine)...
alpine: Pulling from library/redis
Digest: sha256:02419de7edd55aa5bcf49efb74e88fa8d931b4d77c07eff8a6b2144472b6952
Status: Downloaded newer image for redis:alpine
Pulling db (postgres:alpine)...
alpine: Pulling from library/postgres
Digest: sha256:7062a2109c4b51f3c792c7ea01e83ed12ef9a908086e3b3d380a7d2e5f6ce3f5
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: 454B 0.0s done
#1 DONE 0.2s

#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 3.2s

#4 [internal] load .dockerignore
#4 transferring context: 2B done
#4 DONE 0.1s

#5 [1/5] FROM docker.io/library/python:3.11-slim@sha256:7029b00486ac40bed03e36775b864d3f3d39dcbef19cd45e6a52d541e6c178f0
#5 DONE 0.0s

#6 [internal] load build context
#6 transferring context: 7.34kB 0.0s done
#6 DONE 0.1s

```

Activities Google Chrome Mar 19 20:15

t2 #23 Console - Jenkins x Docker Hub x Password | Docker x [Docker] Reset password x devops\_/Jenkinsfile at x +

localhost:8080/job/t2/23/console

Dashboard > t2 > #23

```

#5 DONE 0.0s

#6 [internal] load build context
#6 transferring context: 7.34kB 0.0s done
#6 DONE 0.1s

#7 [4/5] RUN pip install --no-cache-dir -r requirements.txt
#7 CACHED

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

#9 [3/5] COPY requirements.txt /app/
#9 CACHED

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

#11 exporting to image
#11 exporting layers done
#11 writing image sha256:3b8fd3fc64bf98d2e55ba4afc5a1a4cc88e1319a3a23533557e8922697a9ac4 0.0s done
#11 naming to docker.io/library/t2_app
#11 naming to docker.io/library/t2_app 0.1s done
#11 DONE 0.2s
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 t2_redis_1 ...
Creating t2_db_1 ...
Creating t2_redis_1 ... done
Creating t2_db_1 ... done
Creating t2_app_1 ...
Creating t2_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

```