

TASK 2

Name: Thesega P S

Rollno: 22CSR224

Step 1: Install docker by using the command such as

sudo apt-get update

```
p_840_10@THESEGA: ~
Welcome to Ubuntu 24.04.2 LTS (GNU/Linux 5.15.167.4-microsoft-standard-W
SL2 x86_64)

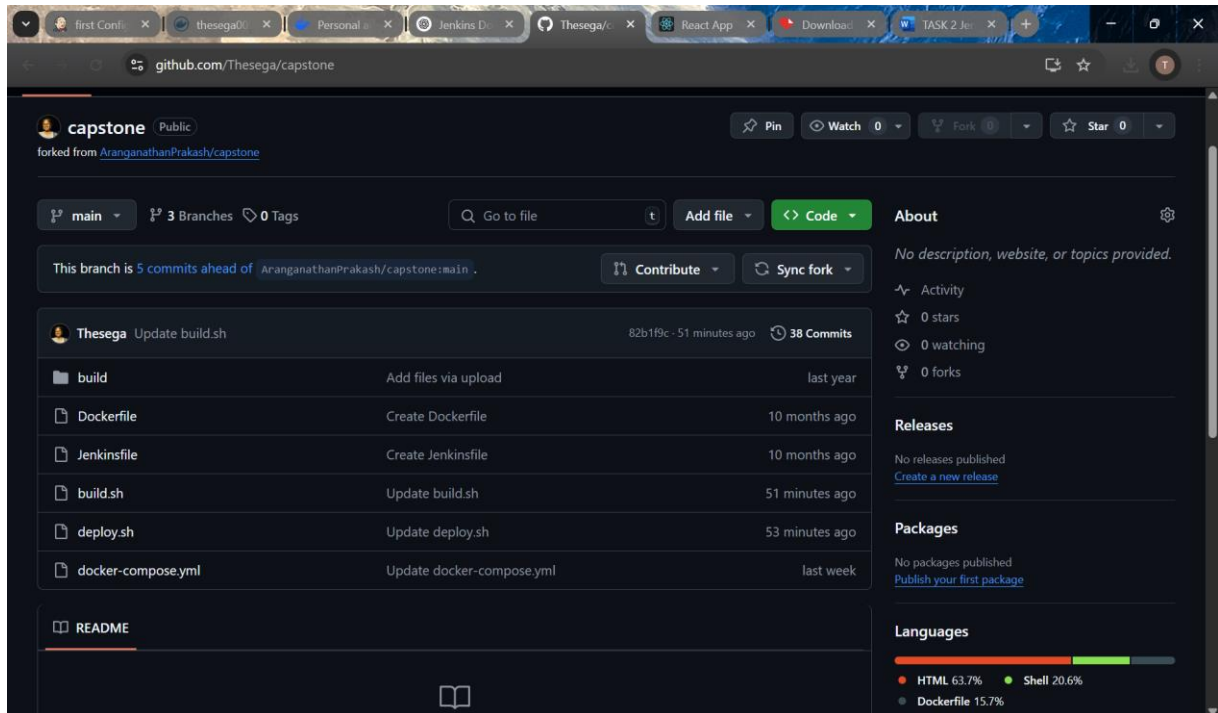
* Documentation:  https://help.ubuntu.com
* Management:    https://landscape.canonical.com
* Support:       https://ubuntu.com/pro

System information as of Wed Mar 26 08:44:03 UTC 2025

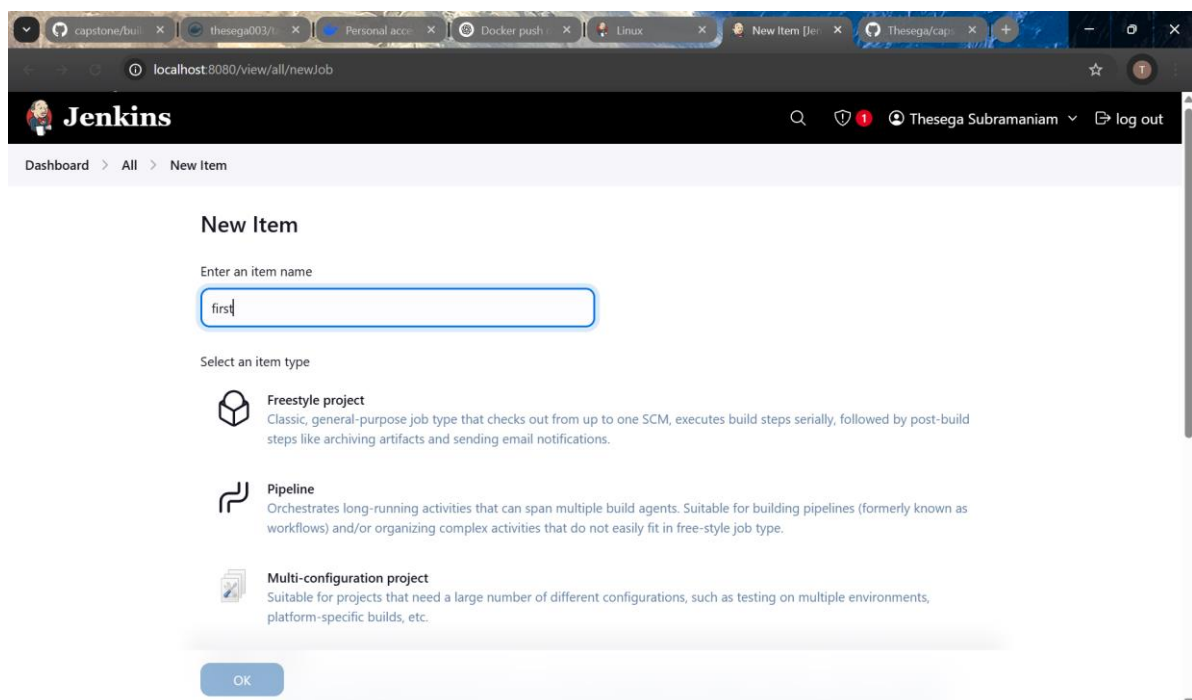
System load:  0.15           Processes:            51
Usage of /:   0.3% of 1006.85GB Users logged in:      1
Memory usage: 15%           IPv4 address for eth0: 172.20.213.49
Swap usage:   0%

This message is shown once a day. To disable it please create the
/home/p_840_10/.hushlogin file.
p_840_10@THESEGA:~$ sudo apt-get update
[sudo] password for p_840_10:
Hit:1 https://download.docker.com/linux/ubuntu noble InRelease
Hit:2 http://archive.ubuntu.com/ubuntu noble InRelease
Ign:3 https://pkg.jenkins.io/debian-stable binary/ InRelease
Hit:4 https://pkg.jenkins.io/debian-stable binary/ Release
Hit:5 http://archive.ubuntu.com/ubuntu noble-updates InRelease
Hit:7 http://security.ubuntu.com/ubuntu noble-security InRelease
Hit:8 http://archive.ubuntu.com/ubuntu noble-backports InRelease
Reading package lists... Done
```

Step 2: Push the code into github



Step 3: Create a new item in Jenkins by giving an item name and select an item type as pipeline



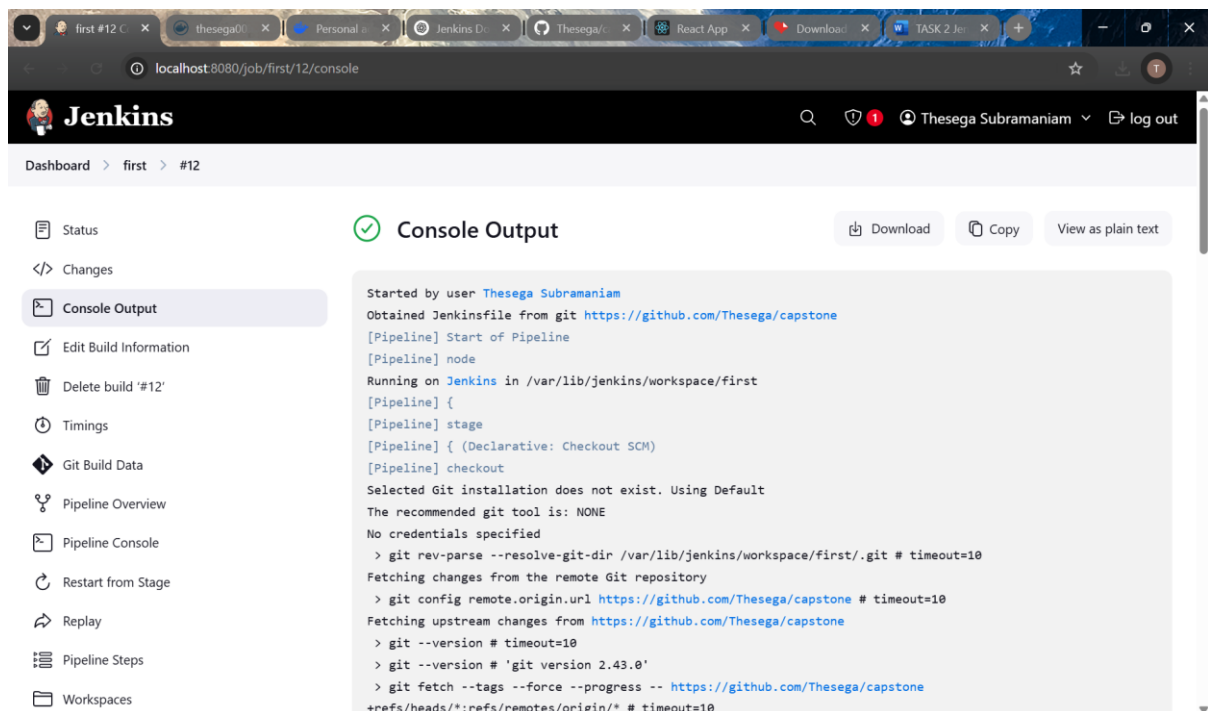
Step 4: Give the repository url and branch name and script path from github

The screenshot shows the Jenkins Configuration page for a pipeline job named 'first'. The browser address bar shows 'localhost:8080/job/first/configure'. The left sidebar has tabs for 'General', 'Triggers', 'Pipeline', and 'Advanced', with 'Pipeline' selected. The main area is titled 'Configure' and shows the 'Definition' dropdown set to 'Pipeline script from SCM'. Below this, the 'SCM' dropdown is set to 'Git'. Under 'Repositories', the 'Repository URL' is set to 'https://github.com/Thesege/capstone'. The 'Credentials' dropdown is set to '- none -'. There are '+ Add' and 'Advanced' buttons at the bottom of the repository configuration. At the very bottom of the configuration page are 'Save' and 'Apply' buttons.

Step 5: Give build now in dashboard , it will build the project

The screenshot shows the Jenkins Dashboard for a pipeline job named 'first'. The browser address bar shows 'localhost:8080/job/first/'. The top navigation bar includes the Jenkins logo, a search icon, a shield icon with a red exclamation mark, the user name 'Thesege Subramaniam', and a 'log out' button. The left sidebar has tabs for 'Status', 'Changes', 'Build Now', 'Configure', 'Delete Pipeline', 'Stages', 'Rename', and 'Pipeline Syntax', with 'Status' selected. The main area shows the job name 'first' and a 'Permalinks' section. Below this is a 'Builds' section with a 'No builds' message.

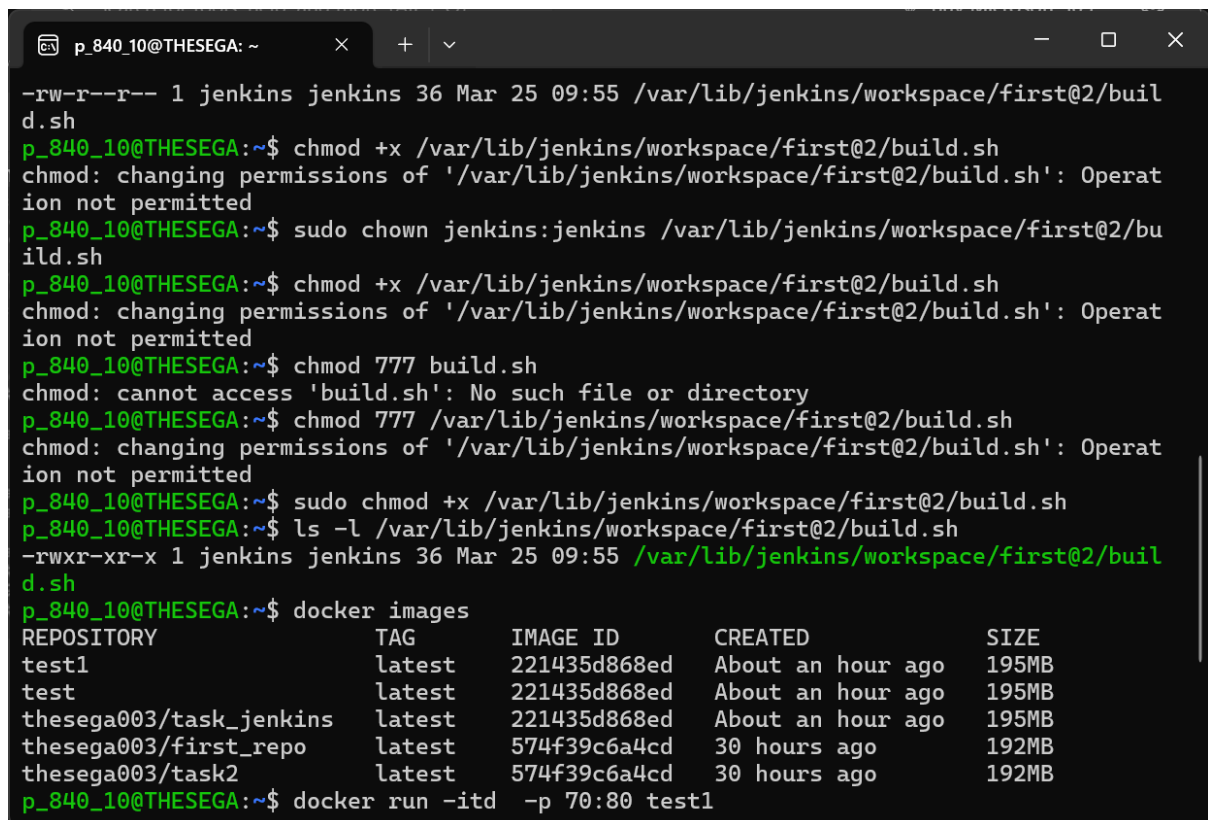
Step 6: Check the console output to verify whether it is builded correctly



The screenshot shows the Jenkins web interface at localhost:8080. The left sidebar contains a list of links: Status, Changes, Console Output (selected), Edit Build Information, Delete build '#12', Timings, Git Build Data, Pipeline Overview, Pipeline Console, Restart from Stage, Replay, Pipeline Steps, and Workspaces. The main area displays the 'Console Output' for build #12, which started by user 'Thesege Subramaniam'. The output shows the pipeline starting, running on Jenkins in the workspace, and performing a checkout. It notes that the selected Git installation does not exist and the recommended tool is NONE. It then shows the execution of 'git rev-parse' and 'git fetch' commands with various options and timeouts.

```
Started by user Thesege Subramaniam
Obtained Jenkinsfile from git https://github.com/Thesege/capstone
[Pipeline] Start of Pipeline
[Pipeline] node
Running on Jenkins in /var/lib/jenkins/workspace/first
[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 --resolve-git-dir /var/lib/jenkins/workspace/first/.git # timeout=10
Fetching changes from the remote Git repository
> git config remote.origin.url https://github.com/Thesege/capstone # timeout=10
Fetching upstream changes from https://github.com/Thesege/capstone
> git --version # timeout=10
> git --version # 'git version 2.43.0'
> git fetch --tags --force --progress -- https://github.com/Thesege/capstone
+refs/heads/*:refs/remotes/origin/* # timeout=10
```

Step 7: Run the command to see the output in localhost



The screenshot shows a terminal window with the prompt 'p_840_10@THESEGA: ~'. The user runs several commands to set permissions on a file and then runs a Docker container. The output shows the file permissions being changed and the Docker container being started.

```
-rw-r--r-- 1 jenkins jenkins 36 Mar 25 09:55 /var/lib/jenkins/workspace/first@2/build.sh
p_840_10@THESEGA:~$ chmod +x /var/lib/jenkins/workspace/first@2/build.sh
chmod: changing permissions of '/var/lib/jenkins/workspace/first@2/build.sh': Operation not permitted
p_840_10@THESEGA:~$ sudo chown jenkins:jenkins /var/lib/jenkins/workspace/first@2/build.sh
p_840_10@THESEGA:~$ chmod +x /var/lib/jenkins/workspace/first@2/build.sh
chmod: changing permissions of '/var/lib/jenkins/workspace/first@2/build.sh': Operation not permitted
p_840_10@THESEGA:~$ chmod 777 build.sh
chmod: cannot access 'build.sh': No such file or directory
p_840_10@THESEGA:~$ chmod 777 /var/lib/jenkins/workspace/first@2/build.sh
chmod: changing permissions of '/var/lib/jenkins/workspace/first@2/build.sh': Operation not permitted
p_840_10@THESEGA:~$ sudo chmod +x /var/lib/jenkins/workspace/first@2/build.sh
p_840_10@THESEGA:~$ ls -l /var/lib/jenkins/workspace/first@2/build.sh
-rwxr-xr-x 1 jenkins jenkins 36 Mar 25 09:55 /var/lib/jenkins/workspace/first@2/build.sh
p_840_10@THESEGA:~$ docker images
REPOSITORY          TAG         IMAGE ID      CREATED        SIZE
test1               latest     221435d868ed  About an hour ago  195MB
test                latest     221435d868ed  About an hour ago  195MB
thesega003/task_jenkins latest     221435d868ed  About an hour ago  195MB
thesega003/first_repo latest     574f39c6a4cd  30 hours ago    192MB
thesega003/task2    latest     574f39c6a4cd  30 hours ago    192MB
p_840_10@THESEGA:~$ docker run -itd -p 70:80 test1
```

Output:

