Integration of Devops tools with Jenkins

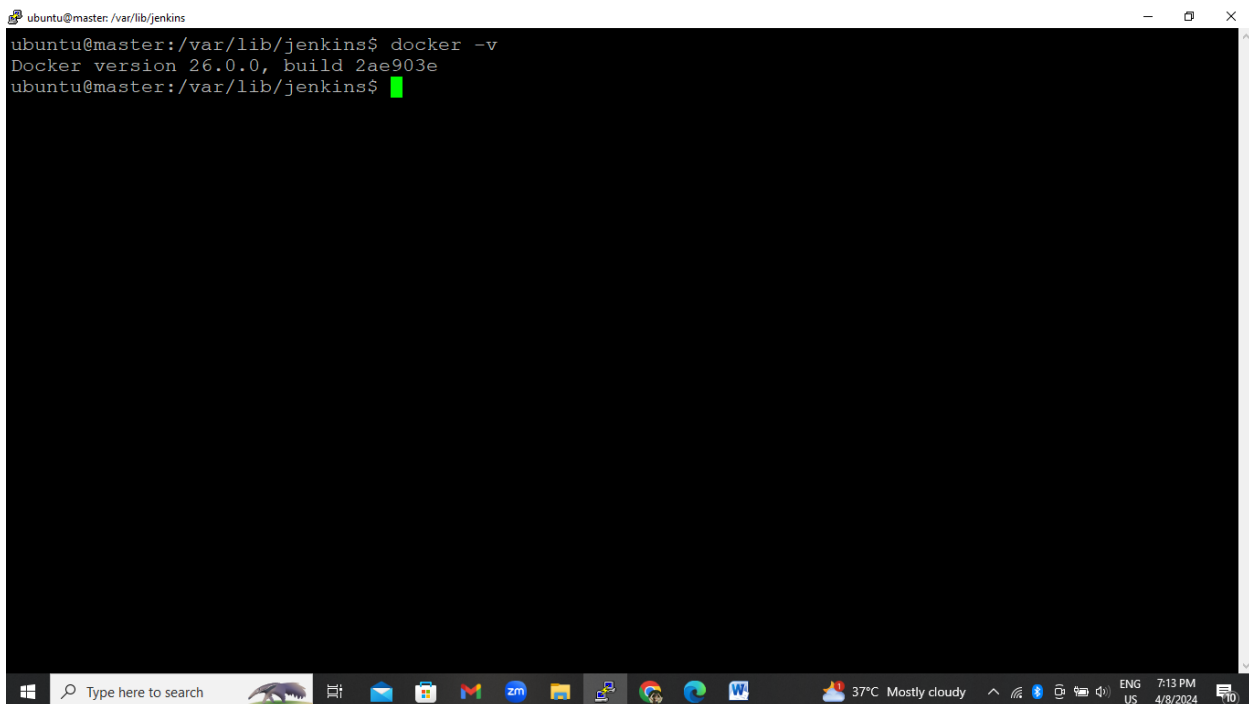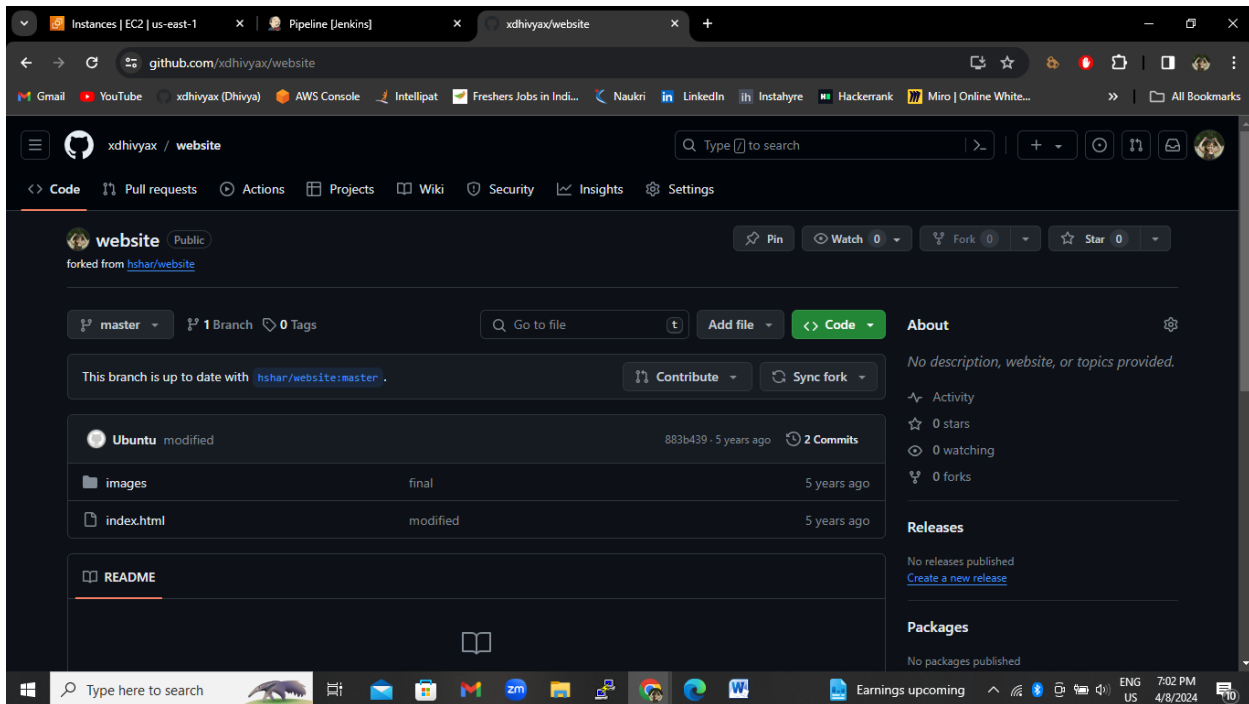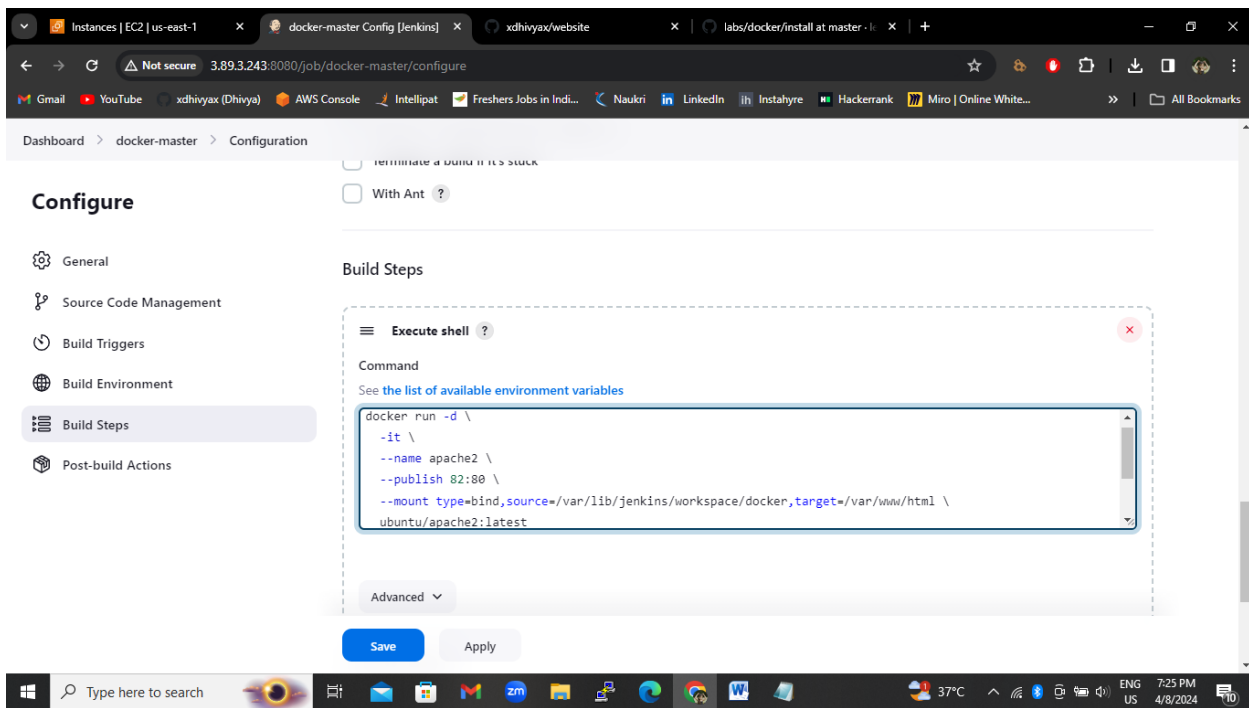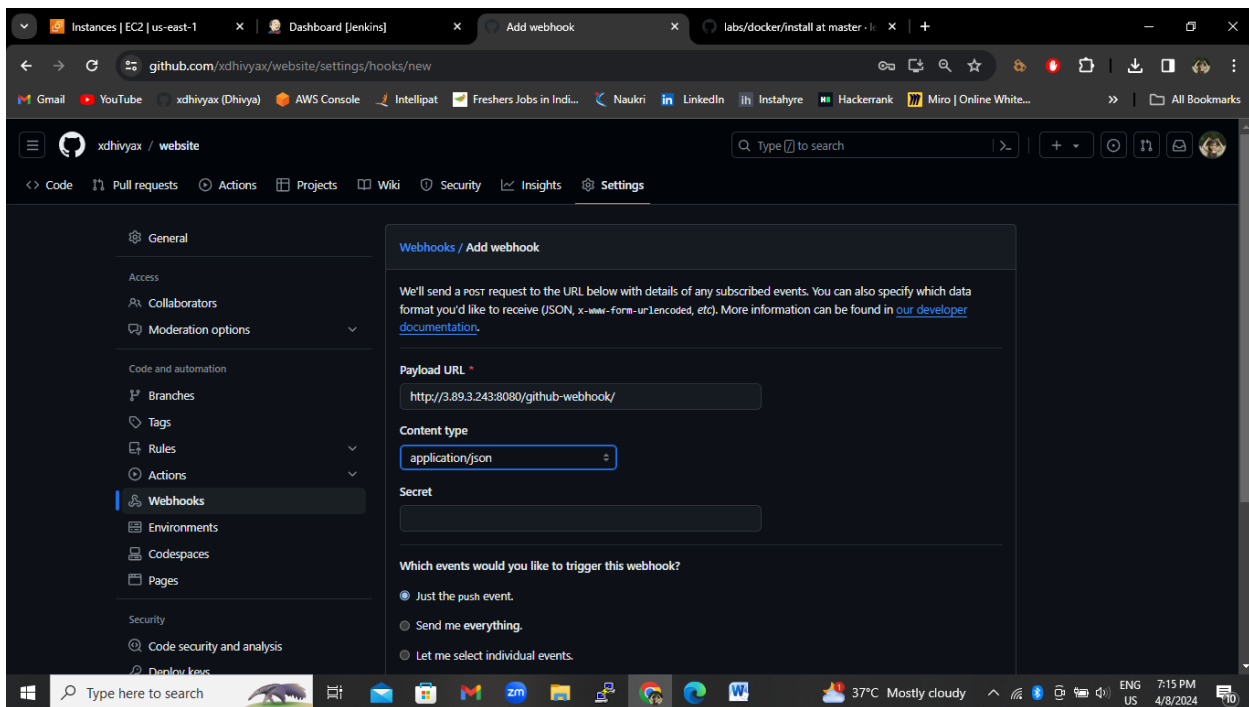Youhave been Hiredasa Devops Engineerin xyz software company. Theywanttoimplement CI/CD pipeline intheir company. You have been asked toimplementthis lifecycle asfast as possible. As this is a product-based company, their product is available on this GitHub link.

https://github.com/hshar/website.git

Following are the specifications of the Continuous integration:

1. Git Workflow hasto be implemented

2. Code Build should automatically be triggered once commit is made to master branch or develop branch.

If commit is made to master branch, build and publish website on

port 82. If commit is made to develop branch, just build the

product, do not publish.

3. Create a pipeline for the above tasks.

4. Create a container with Ubuntu and apache installed in it and use that container to build the code and the code should be on '/var/www/html'.
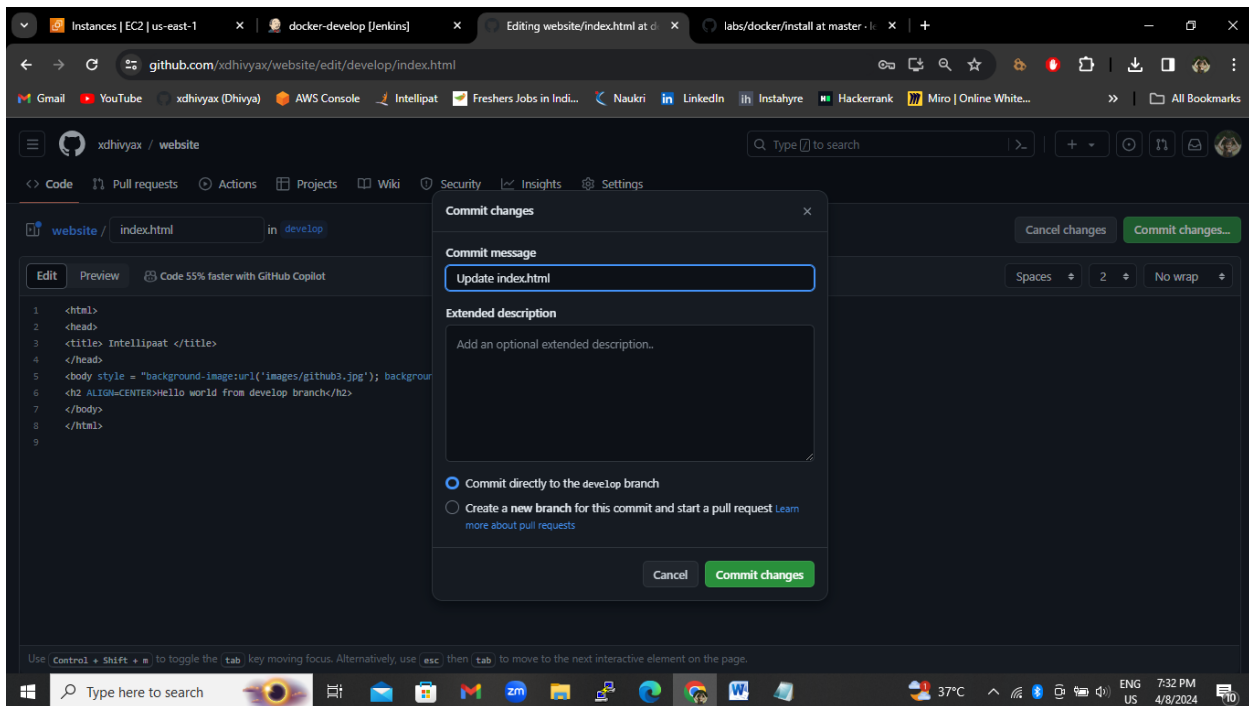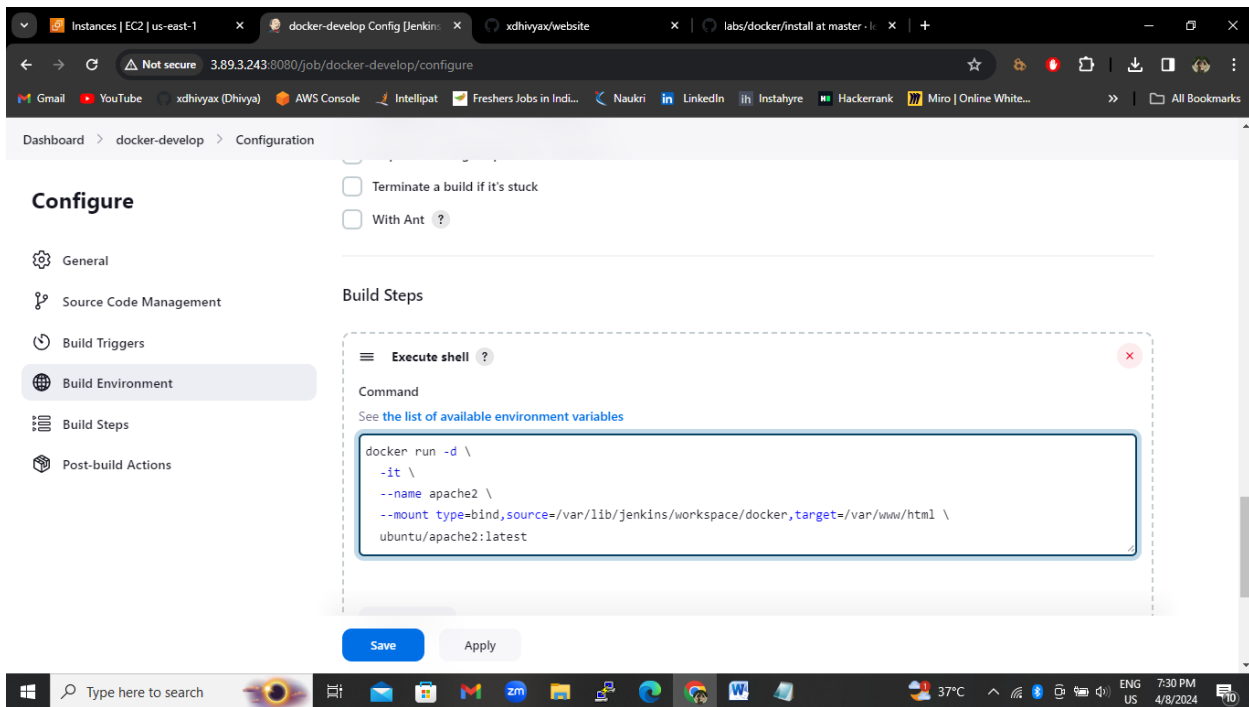
```
ubuntu@master:/var/lib/jenkins$ docker -v
Docker version 26.0.0, build 2ae903e
ubuntu@master:/var/lib/jenkins$
```

Status
Changes
Console Output
View as plain text
Edit Build Information
Delete build '#6'
Polling Log
Git Build Data
← **Previous Build**

✓ Console Output

```
Started by GitHub push by xdhivyax
Running as SYSTEM
Building in workspace /var/lib/jenkins/workspace/docker-develop
The recommended git tool is: NONE
No credentials specified
 > /usr/bin/git rev-parse --resolve-git-dir /var/lib/jenkins/workspace/docker-develop/.git # timeout=10
Fetching changes from the remote Git repository
 > /usr/bin/git config remote.origin.url https://github.com/xdhivyax/website.git # timeout=10
Fetching upstream changes from https://github.com/xdhivyax/website.git
 > /usr/bin/git --version # timeout=10
 > git --version # 'git version 2.34.1'
 > /usr/bin/git fetch --tags --force --progress -- https://github.com/xdhivyax/website.git +refs/heads/*:refs/remotes/origin/* # timeout=10
 > /usr/bin/git rev-parse refs/remotes/origin/develop^{commit} # timeout=10
Checking out Revision d2b942093b5fea678b03964d64ca9d897ea8c54d (refs/remotes/origin/develop)
 > /usr/bin/git config core.sparsecheckout # timeout=10
 > /usr/bin/git checkout -f d2b942093b5fea678b03964d64ca9d897ea8c54d # timeout=10
Commit message: "Update index.html"
 > /usr/bin/git rev-list --no-walk 434f22760d1e34e6210b6ab65191e78d75a8ad6c # timeout=10
[docker-develop] $ /bin/sh -xe /tmp/jenkins10443773873160080184.sh
+ docker run -d -it --name apache2 --mount type=bind,source=/var/lib/jenkins/workspace/docker,target=/var/www/html ubuntu/apache2:latest
fe0238971d4096144ac427cd960a86283a969add1ad26b078a169d1171ef7101
Finished: SUCCESS
```

```
root@master: /var/lib/jenkins/workspace/docker-develop

jenkins@master:~/workspace$ docker ps
CONTAINER ID    IMAGE                 COMMAND               CREATED         STATUS          PORTS
NAMES
fe0238971d40    ubuntu/apache2:latest  "apache2-foreground"  3 minutes ago   Up 3 minutes    80/tcp
apache2
jenkins@master:~/workspace$
```
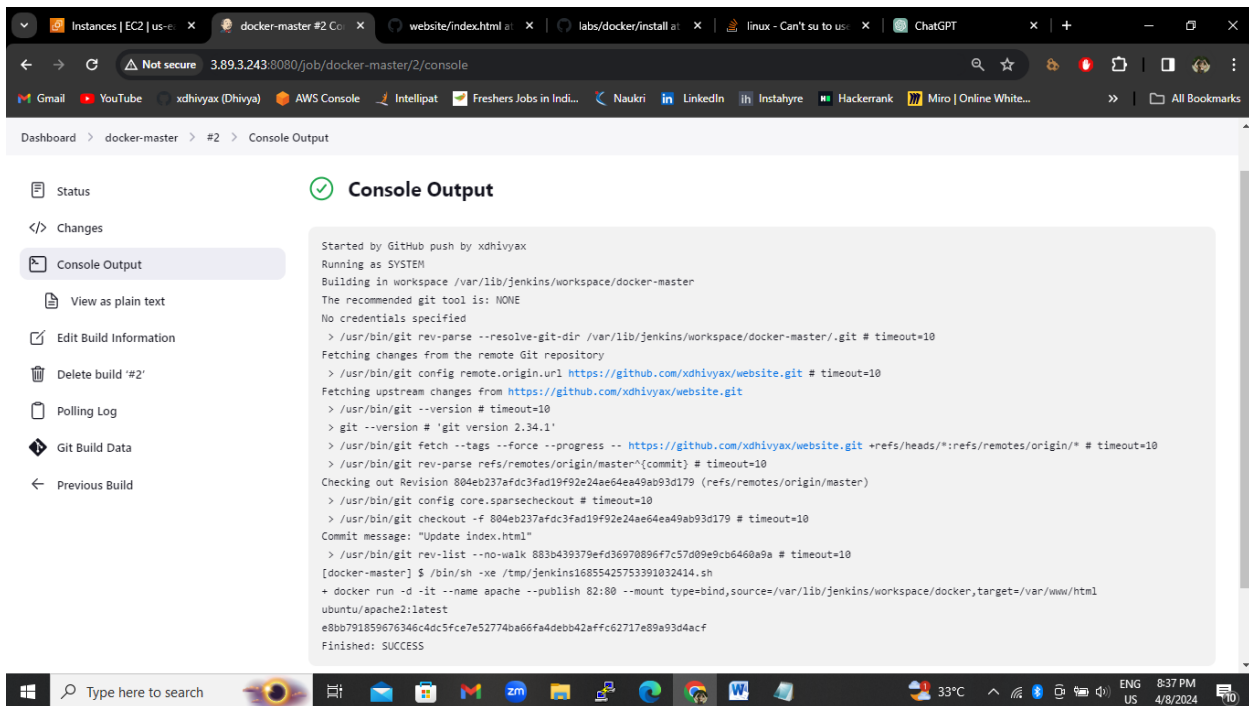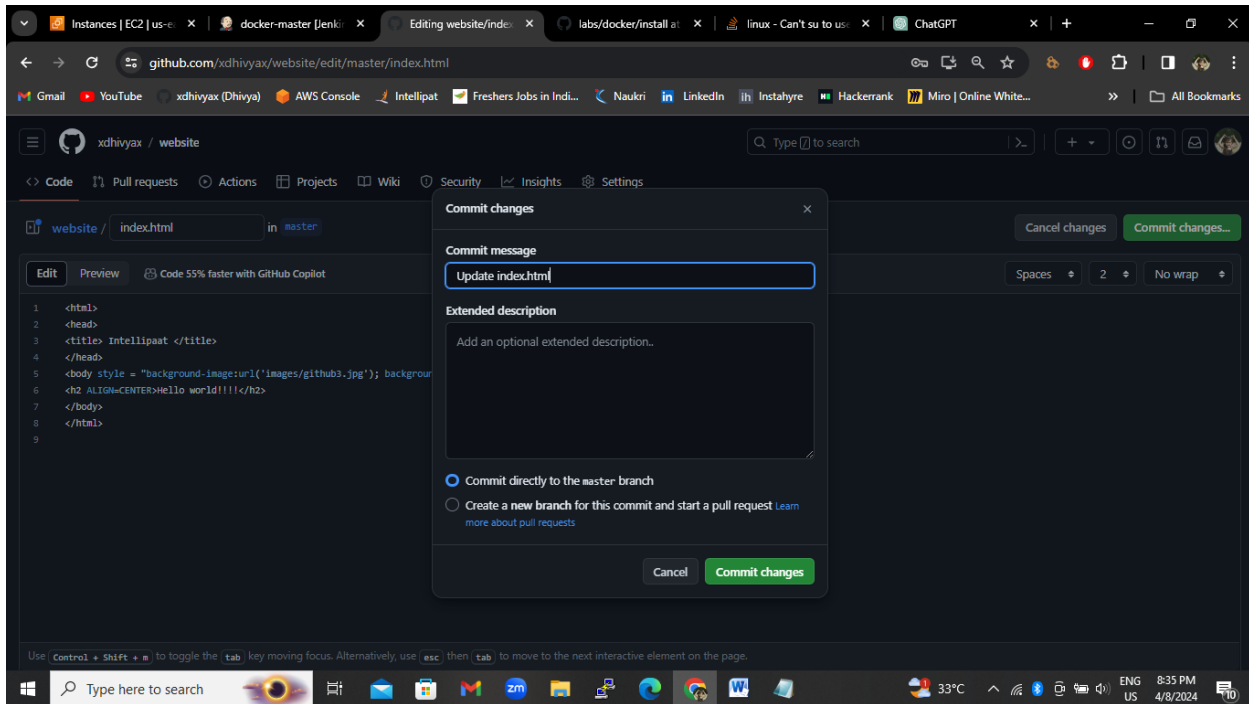
xdhivyax / website

Type / to search

Code · Pull requests · Actions · Projects · Wiki · Security · Insights · Settings

website / index.html in master

Cancel changes · Commit changes...

Edit · Preview · Code 55% faster with GitHub Copilot

Spaces · 2 · No wrap

```
1    <html>
2    <head>
3    <title> Intellipaat </title>
4    </head>
5    <body style = "background-image:url('images/github3.jpg'); backgrou
6    <h2 ALIGN=CENTER>Hello world!!!!</h2>
7    </body>
8    </html>
9
```

Commit changes ✕

Commit message

Update index.html

Extended description

Add an optional extended description..

● Commit directly to the master branch

○ Create a **new branch** for this commit and start a pull request. Learn more about pull requests

Cancel · **Commit changes**

Use `Control + Shift + m` to toggle the `tab` key moving focus. Alternatively, use `esc` then `tab` to move to the next interactive element on the page.

33°C · ENG US · 8:35 PM 4/8/2024

Dashboard → docker-master → #2 → Console Output

Status

Changes

Console Output

View as plain text

Edit Build Information

Delete build '#2'

Polling Log

Git Build Data

← Previous Build

✓ **Console Output**

```
Started by GitHub push by xdhivyax
Running as SYSTEM
Building in workspace /var/lib/jenkins/workspace/docker-master
The recommended git tool is: NONE
No credentials specified
 > /usr/bin/git rev-parse --resolve-git-dir /var/lib/jenkins/workspace/docker-master/.git # timeout=10
Fetching changes from the remote Git repository
 > /usr/bin/git config remote.origin.url https://github.com/xdhivyax/website.git # timeout=10
Fetching upstream changes from https://github.com/xdhivyax/website.git
 > /usr/bin/git --version # timeout=10
 > git --version # 'git version 2.34.1'
 > /usr/bin/git fetch --tags --force --progress -- https://github.com/xdhivyax/website.git +refs/heads/*:refs/remotes/origin/* # timeout=10
 > /usr/bin/git rev-parse refs/remotes/origin/master^{commit} # timeout=10
Checking out Revision 804eb237afdc3fad19f92e24ae64ea49ab93d179 (refs/remotes/origin/master)
 > /usr/bin/git config core.sparsecheckout # timeout=10
 > /usr/bin/git checkout -f 804eb237afdc3fad19f92e24ae64ea49ab93d179 # timeout=10
Commit message: "Update index.html"
 > /usr/bin/git rev-list --no-walk 883b439379efd36970896f7c57d09e9cb6460a9a # timeout=10
[docker-master] $ /bin/sh -xe /tmp/jenkins16855425753391032414.sh
+ docker run -d -it --name apache --publish 82:80 --mount type=bind,source=/var/lib/jenkins/workspace/docker,target=/var/www/html
ubuntu/apache2:latest
e8bb791859676346c4dc5fce7e52774ba66fa4debb42affc62717e89a93d4acf
Finished: SUCCESS
```

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```
jenkins@master:~/workspace$ docker ps
CONTAINER ID    IMAGE                         COMMAND                 CREATED              STATUS
PORTS                                         NAMES
e8bb79185967    ubuntu/apache2:latest         "apache2-foreground"    About a minute ago   Up About a minute
0.0.0.0:82->80/tcp, :::82->80/tcp   apache
fe0238971d40    ubuntu/apache2:latest         "apache2-foreground"    15 minutes ago       Up 15 minutes
80/tcp                                        apache2
jenkins@master:~/workspace$
```

```
unknown shorthand flag: 'A' in -A
See 'docker inspect --help'.
jenkins@master:~/workspace/docker$ docker inspect e8bb79185967 | grep -A 5 -i mounts
            "Mounts": [
                {
                    "Type": "bind",
                    "Source": "/var/lib/jenkins/workspace/docker",
                    "Target": "/var/www/html"
                }
--
        "Mounts": [
            {
                "Type": "bind",
                "Source": "/var/lib/jenkins/workspace/docker",
                "Destination": "/var/www/html",
                "Mode": "",
jenkins@master:~/workspace/docker$ pwd
/var/lib/jenkins/workspace/docker
jenkins@master:~/workspace/docker$ ls
images  index.html
jenkins@master:~/workspace/docker$ cat index.html
<html>
<head>
<title> Intellipaat </title>
</head>
<body style = "background-image:url('images/github3.jpg'); background-size: 100%">
<h2 ALIGN=CENTER>Hello world!!!!</h2>
</body>
</html>
jenkins@master:~/workspace/docker$
```

Hello world!!!!