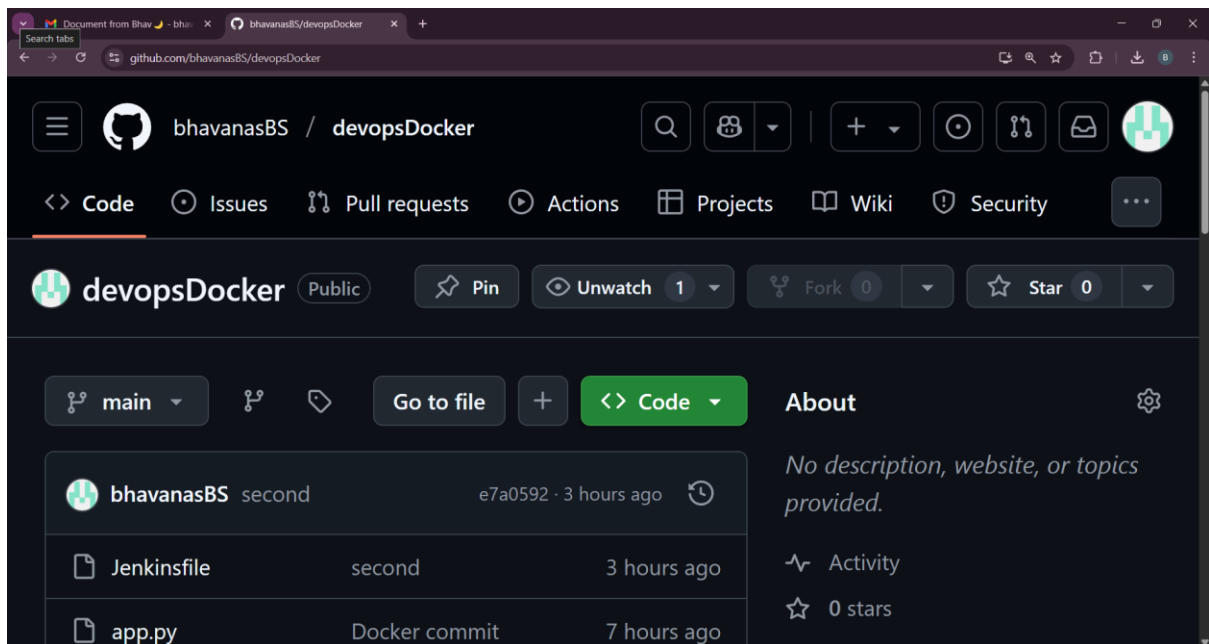


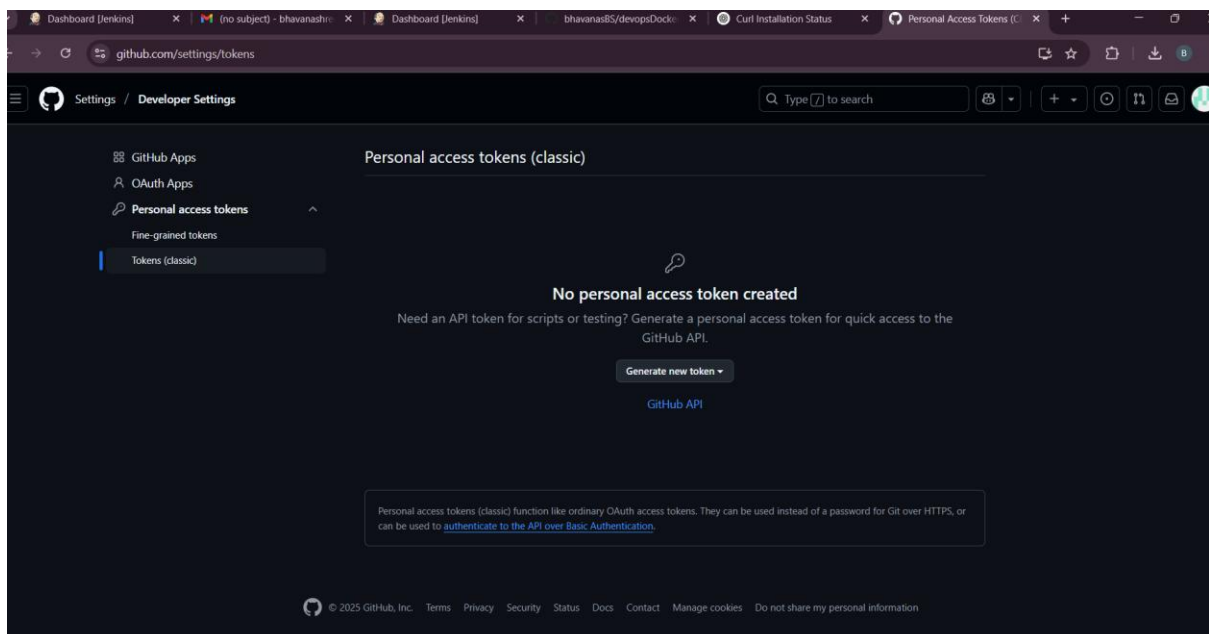
# DEVOPS TRAINING

## DAY 2

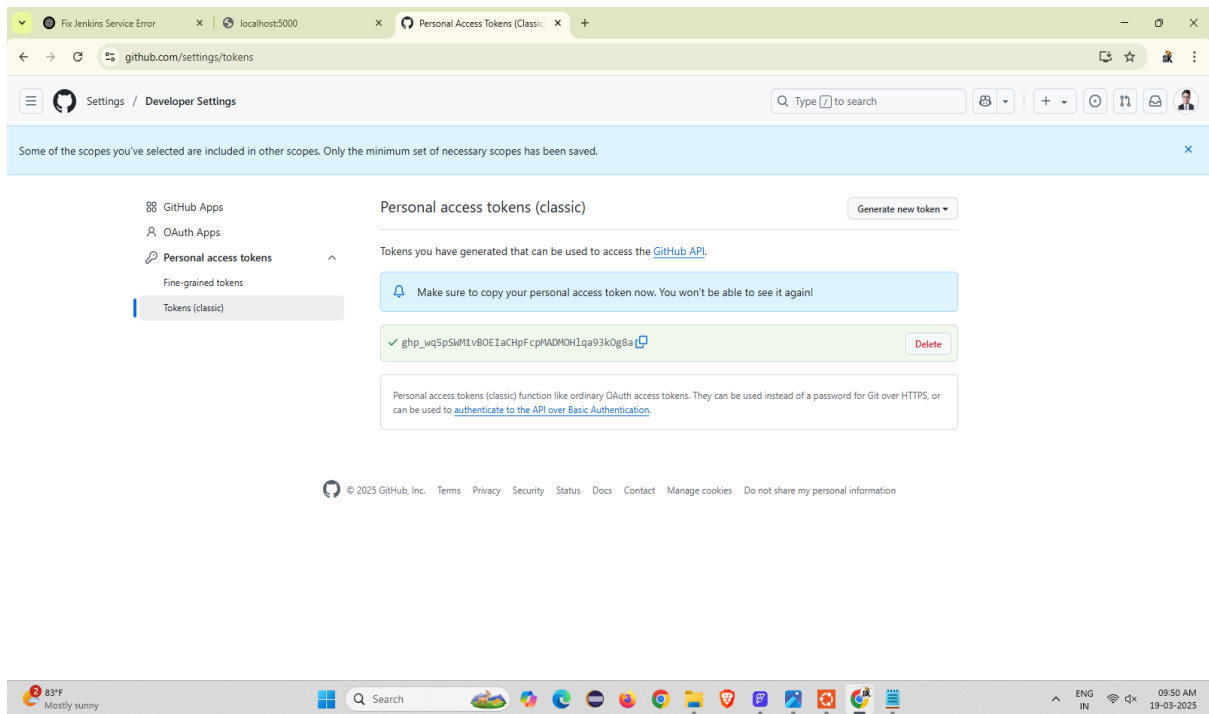
### Step 1: create repository in github



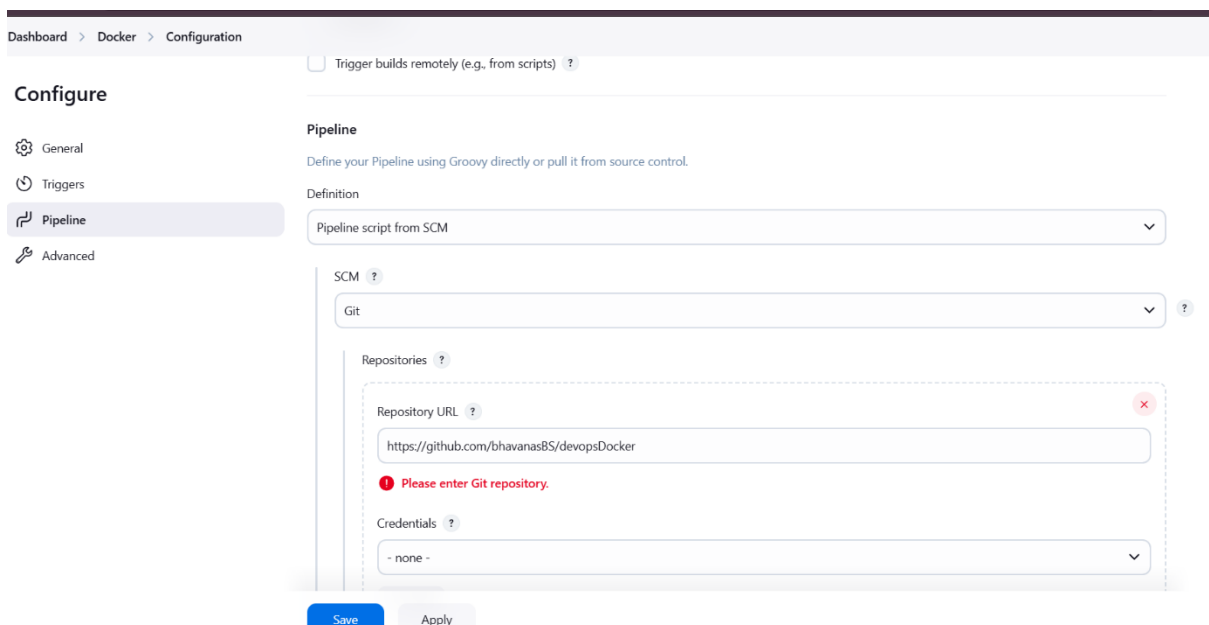
### Step 2: go to developer settings



### Step 3: generate and copy the token (classic)



Step 4: open Jenkins and create new item and select pipeline in that go to configuration add github repository url into it



Step 5: in Jenkins configure save it

Dashboard > Docker > Configuration

☐ Trigger builds remotely (e.g., from scripts) ?

### Configure

- General
- Triggers
- Pipeline**
- Advanced

#### Pipeline

Define your Pipeline using Groovy directly or pull it from source control.

Definition

Pipeline script from SCM

SCM ?

Git

Repositories ?

Repository URL ?

https://github.com/bhavanasBS/devopsDocker

**Please enter Git repository.**

Credentials ?

- none -

Save Apply

## Step 6: verify the status page

Fix Jenkins Service Error x localhost:5000 x Personal Access Tokens (Cla... x test1 [Jenkins] x 53nThil-03/Devops x Inbox (1,161) - senthil73587

localhost:8080/job/test1/

# Jenkins

Dashboard > test1 >

### test1

Permalinks

- Status
- Changes
- Build Now
- Configure
- Delete Pipeline
- Stages
- Rename
- Pipeline Syntax

**Builds**

No builds

85°F Mostly sunny

Search

## Step 7: clone the git repository

```
student@CTS-6: ~/docker-python-app
student@CTS-6:~/docker-python-app$ ls
app.py  docker-compose.yml  dockerfile  requirements.txt
student@CTS-6:~/docker-python-app$ cat docker-compose.yml
version: '3.8'
services:
  web:
    build: .
    ports:
      - "5000:5000"
    volumes:
      - ../app
    restart: always
student@CTS-6:~/docker-python-app$ sudo systemctl enable jenkins
[sudo] password for student:
Synchronizing state of jenkins.service with SysV service script with /usr/lib/systemd/systemd-sysv-install.
Executing: /usr/lib/systemd/systemd-sysv-install enable jenkins
student@CTS-6:~/docker-python-app$ sudo systemctl start jenkins
student@CTS-6:~/docker-python-app$ cat dockerfile
FROM python:3.11
WORKDIR /app
COPY requirements.txt .
RUN pip install --no-cache-dir flask
COPY . .
EXPOSE 5000
CMD ["python", "app.py"]
student@CTS-6:~/docker-python-app$ ls
app.py  docker-compose.yml  dockerfile  requirements.txt
student@CTS-6:~/docker-python-app$ git clone https://github.com/S3nThil-03/Devops.git_
```

## Step 8: using cd add the repository into it

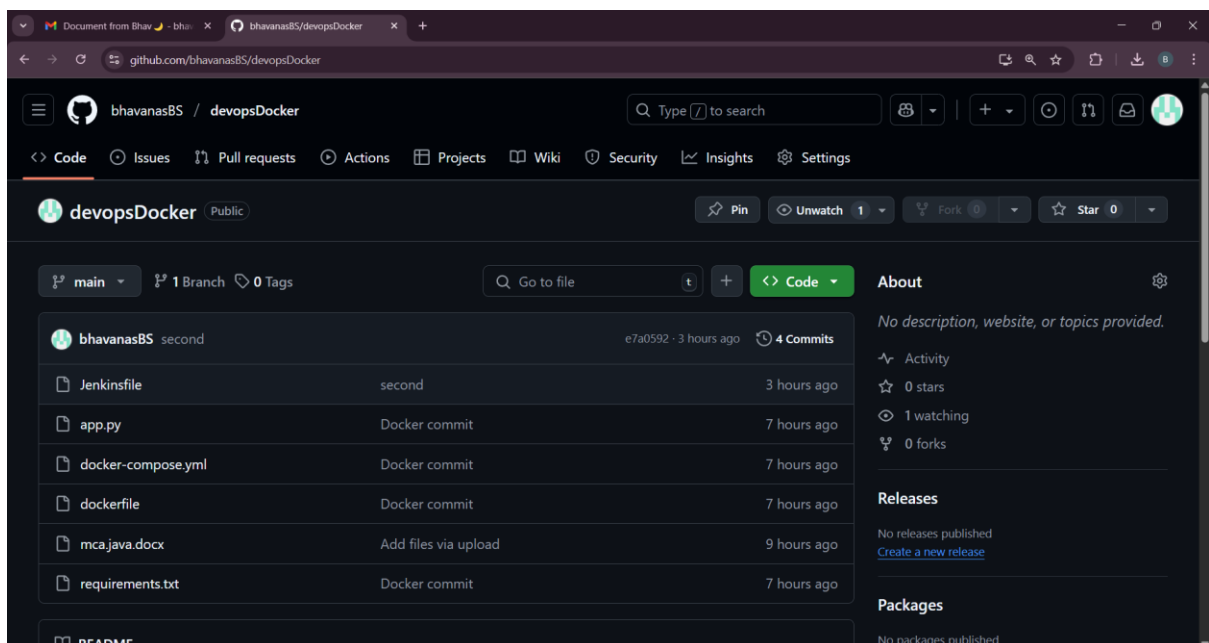
```
student@CTS-6: ~/docker-python-app/Devops
- ../app
  restart: always
student@CTS-6:~/docker-python-app$ sudo systemctl enable jenkins
[sudo] password for student:
Synchronizing state of jenkins.service with SysV service script with /usr/lib/systemd/systemd-sysv-install.
Executing: /usr/lib/systemd/systemd-sysv-install enable jenkins
student@CTS-6:~/docker-python-app$ sudo systemctl start jenkins
student@CTS-6:~/docker-python-app$ cat dockerfile
FROM python:3.11
WORKDIR /app
COPY requirements.txt .
RUN pip install --no-cache-dir flask
COPY . .
EXPOSE 5000
CMD ["python", "app.py"]
student@CTS-6:~/docker-python-app$ ls
app.py  docker-compose.yml  dockerfile  requirements.txt
student@CTS-6:~/docker-python-app$ git clone https://github.com/S3nThil-03/Devops.git
Cloning into 'Devops'...
remote: Enumerating objects: 14, done.
remote: Counting objects: 100% (14/14), done.
remote: Compressing objects: 100% (12/12), done.
remote: Total 14 (delta 5), reused 0 (delta 0), pack-reused 0 (from 0)
Receiving objects: 100% (14/14), 4.84 MiB | 4.13 MiB/s, done.
Resolving deltas: 100% (5/5), done.
student@CTS-6:~/docker-python-app$ ls
Devops  app.py  docker-compose.yml  dockerfile  requirements.txt
student@CTS-6:~/docker-python-app$ mv app.py docker-compose.yml  dockerfile requirements.txt Devops/
student@CTS-6:~/docker-python-app$ ls
Devops
student@CTS-6:~/docker-python-app$ cd Devops/
student@CTS-6:~/docker-python-app/Devops$ ls
'Day 1'  README.md  app.py  docker-compose.yml  dockerfile  requirements.txt
student@CTS-6:~/docker-python-app/Devops$
```

## Step 9: using git push command to push all the files into github

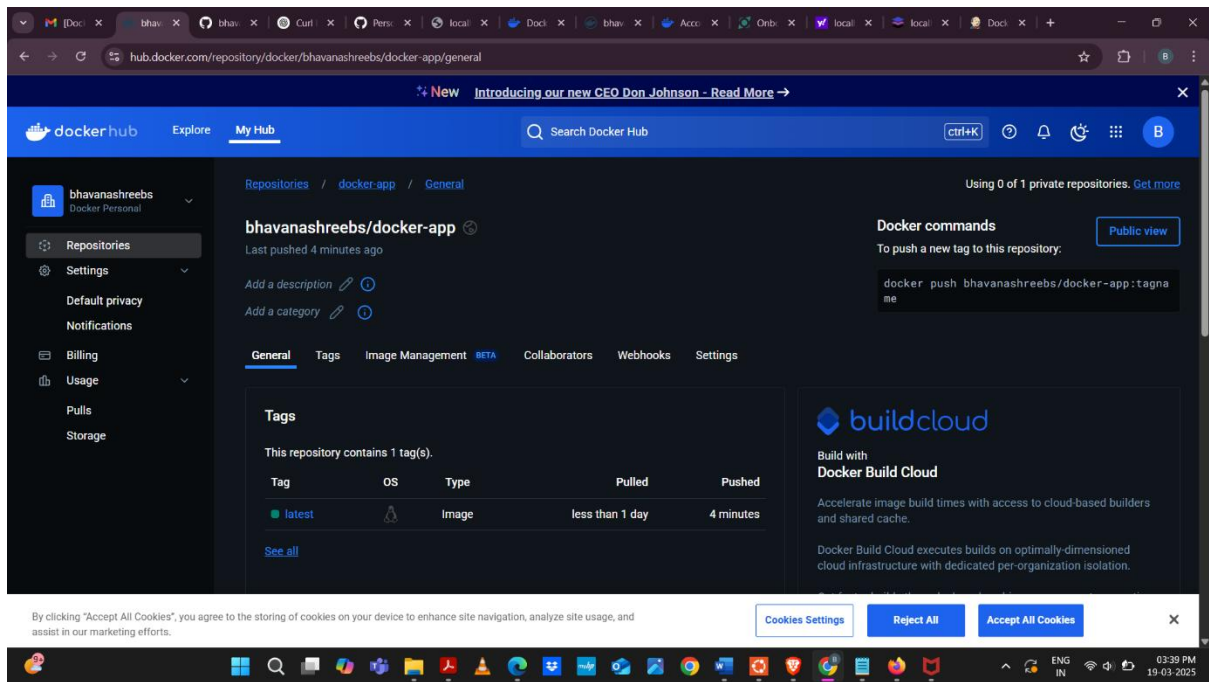
```
student@CTS-6: ~/docker-python-app/Devops
to set your account's default identity.
Omit --global to set the identity only in this repository.

fatal: empty ident name (for <student@CTS-6.>) not allowed
student@CTS-6:~/docker-python-app/Devops$ git config --global user.email senthil73587@gmail.com
student@CTS-6:~/docker-python-app/Devops$ git config --global user.name S3nThil-03
student@CTS-6:~/docker-python-app/Devops$ git config --global user.email "senthil73587@gmail.com"
student@CTS-6:~/docker-python-app/Devops$ git config --global user.name "S3nThil-03"
student@CTS-6:~/docker-python-app/Devops$ git commit -m "Initial commit"
[main 3b7729f] Initial commit
4 files changed, 27 insertions(+)
create mode 100644 app.py
create mode 100644 docker-compose.yml
create mode 100644 dockerfile
create mode 100644 requirements.txt
student@CTS-6:~/docker-python-app/Devops$ git push https://S3nThil-03:ghp_wq5p5wM1v80EiaChpFcpMADMOH1qa93k0g8a@github.com/S3nThil-03/Devops.git
Enumerating objects: 7, done.
Counting objects: 100% (7/7), done.
Delta compression using up to 16 threads
Compressing objects: 100% (5/5), done.
Writing objects: 100% (6/6), 815 bytes | 815.00 KiB/s, done.
Total 6 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/S3nThil-03/Devops.git
    b1e96e7..3b7729f  main -> main
student@CTS-6:~/docker-python-app/Devops$
```

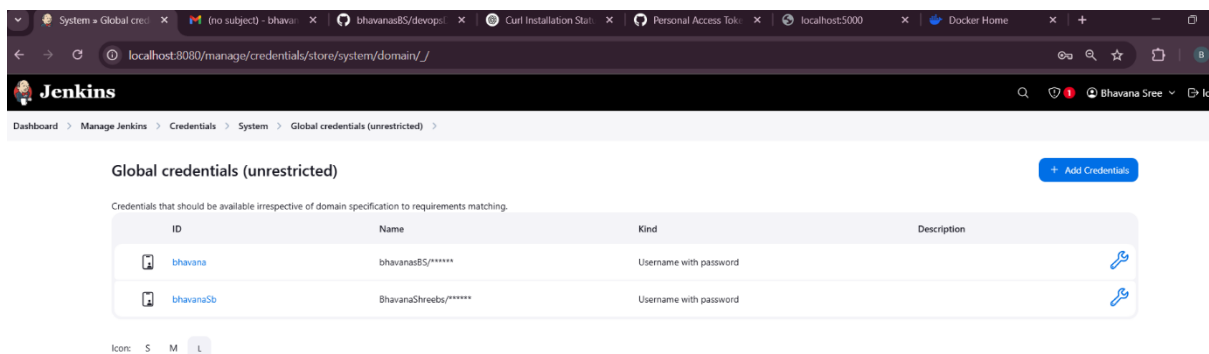
## Step 10: check the docker all the files are uploaded in the github repository



## Step 11: go to the docker and login in



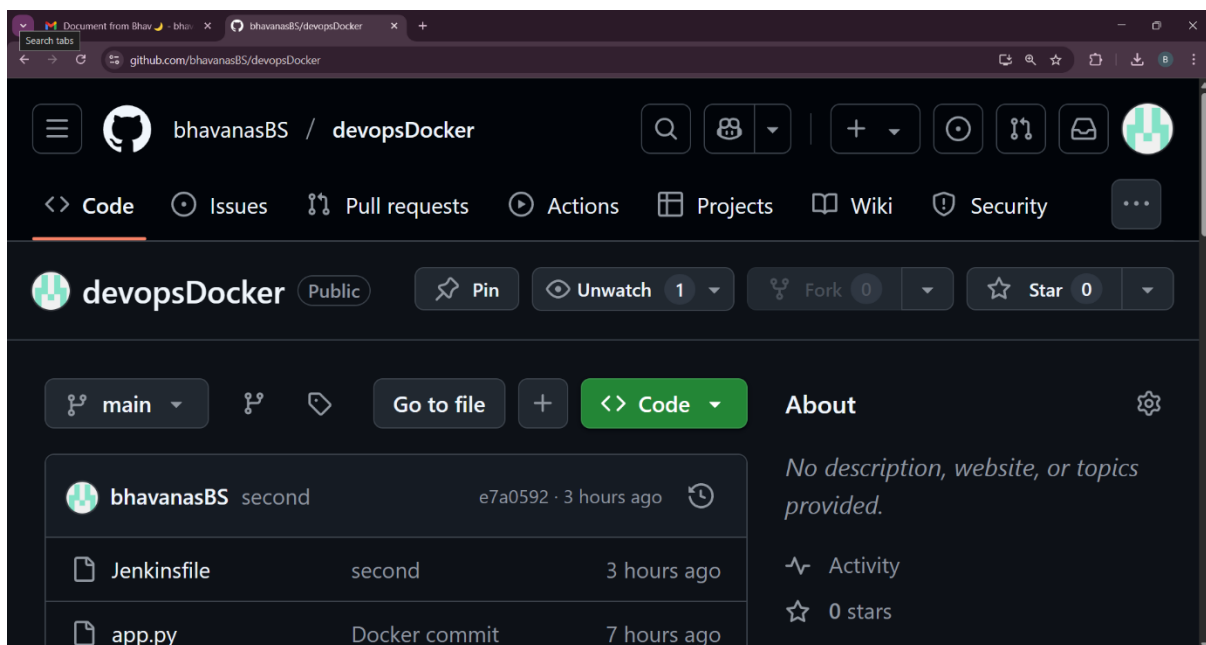
Step 12: in jenkins copy the global credentials and change in the jenkins file



Step 13: commit the jenkinsfile into github

```
student@CTS-6: ~/docker-python-app/Devops$
student@CTS-6:~/docker-python-app/Devops$ git push https://S3nThil-03:ghp_wq5pSWM1vB0EiaCHpFcpMADMOH1qa93k0g8a@github.com/S3nThil-03/Devops.git
student@CTS-6:~/docker-python-app/Devops$
student@CTS-6:~/docker-python-app/Devops$
student@CTS-6:~/docker-python-app/Devops$
student@CTS-6:~/docker-python-app/Devops$ 15.00 KiB/s, done.
student@CTS-6:~/docker-python-app/Devops$ k-reused 0
student@CTS-6:~/docker-python-app/Devops$ t
student@CTS-6:~/docker-python-app/Devops$ nano jenkinsfile
student@CTS-6:~/docker-python-app/Devops$ ls
'Day 1' README.md app.py docker-compose.yml dockerfile jenkinsfile requirements.txt
student@CTS-6:~/docker-python-app/Devops$ nano jenkinsfile
student@CTS-6:~/docker-python-app/Devops$ nano jenkinsfile
student@CTS-6:~/docker-python-app/Devops$ nano jenkinsfile
student@CTS-6:~/docker-python-app/Devops$ git add .
student@CTS-6:~/docker-python-app/Devops$ git commit -m "Second Commit"
[main 3f97c4c] Second Commit
1 file changed, 66 insertions(+)
create mode 100644 jenkinsfile
student@CTS-6:~/docker-python-app/Devops$ nano jenkinsfile
student@CTS-6:~/docker-python-app/Devops$ git add .
student@CTS-6:~/docker-python-app/Devops$ git commit -m "Second Commit"
[main 443aae6] Second Commit
1 file changed, 1 insertion(+), 1 deletion(-)
student@CTS-6:~/docker-python-app/Devops$ git push https://S3nThil-03:ghp_wq5pSWM1vB0EiaCHpFcpMADMOH1qa93k0g8a@github.com/S3nThil-03/Devops.git
Enumerating objects: 7, done.
Counting objects: 100% (7/7), done.
Delta compression using up to 16 threads
Compressing objects: 100% (6/6), done.
Writing objects: 100% (6/6), 1.19 KiB | 1.19 MiB/s, done.
Total 6 (delta 3), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (3/3), completed with 1 local object.
To https://github.com/S3nThil-03/Devops.git
3b7729f..443aae6 main -> main
student@CTS-6:~/docker-python-app/Devops$
```

Step 14: verify the jenkins file is pushed in the github

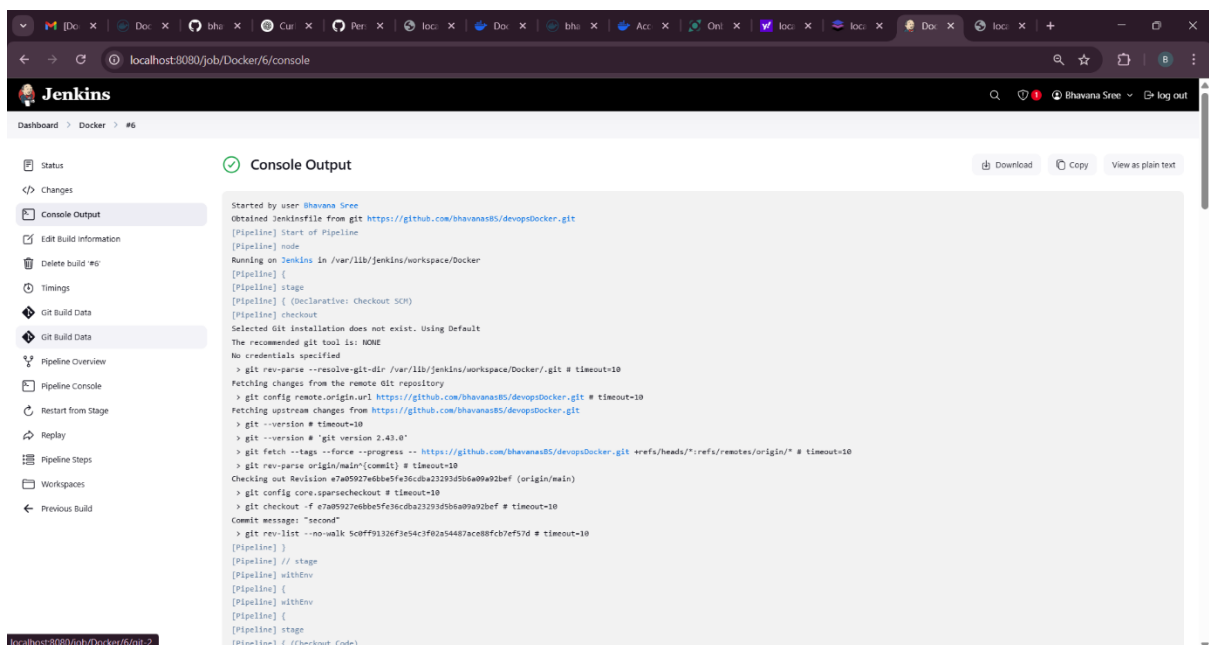


Step 15 : using “sudo usermod –aG docker jenkins” and restart the jenkins

```
student@CTS-6: ~/docker-python-app/Devops
'Day 1' README.md app.py docker-compose.yml dockerfile jenkinsfile requirements.txt
student@CTS-6:~/docker-python-app/Devops$ nano jenkinsfile
student@CTS-6:~/docker-python-app/Devops$ nano jenkinsfile
student@CTS-6:~/docker-python-app/Devops$ git add .
student@CTS-6:~/docker-python-app/Devops$ git commit -m "Second Commit"
[main 3f97c4c] Second Commit
1 file changed, 66 insertions(+)
create mode 100644 jenkinsfile
student@CTS-6:~/docker-python-app/Devops$ nano jenkinsfile
student@CTS-6:~/docker-python-app/Devops$ git add .
student@CTS-6:~/docker-python-app/Devops$ git commit -m "Second Commit"
[main 443aae6] Second Commit
1 file changed, 1 insertion(+), 1 deletion(-)
student@CTS-6:~/docker-python-app/Devops$ git push https://S3nThil-03:ghp_wq5pSWMlVBOEiaCHpMADMOHlqa93kOg8a@github.com/S3nThil-03/Devops.git
Enumerating objects: 7, done.
Counting objects: 100% (7/7), done.
Delta compression using up to 16 threads
Compressing objects: 100% (6/6), done.
Writing objects: 100% (6/6), 1.19 KiB | 1.19 MiB/s, done.
Total 6 (delta 3), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (3/3), completed with 1 local object.
To https://github.com/S3nThil-03/Devops.git
3b7729f..443aae6 main -> main
student@CTS-6:~/docker-python-app/Devops$ ls
'Day 1' README.md app.py docker-compose.yml dockerfile jenkinsfile requirements.txt
student@CTS-6:~/docker-python-app/Devops$ sudo usermod -aG docker jenkins
[sudo] password for student:
student@CTS-6:~/docker-python-app/Devops$ sudo systemctl restart jenkins
student@CTS-6:~/docker-python-app/Devops$ docker push senthil73587/docker-app:latest
permission denied while trying to connect to the Docker daemon socket at unix:///var/run/docker.sock: Post "http://%2Fvar%2Frun%2Fdocker.sock/v1.45/images/sen
thil73587/docker-app/push?tag=latest": dial unix /var/run/docker.sock: connect: permission denied
student@CTS-6:~/docker-python-app/Devops$ docker login -u senthil73587 -p senthil2233
WARNING! Using --password via the CLI is insecure. Use --password-stdin.
WARNING! Your password will be stored unencrypted in /home/student/.docker/config.json.
Configure a credential helper to remove this warning. See
https://docs.docker.com/engine/reference/commandline/login/#credentials-store

Login Succeeded
student@CTS-6:~/docker-python-app/Devops$ sudo usermod -aG docker jenkins
```

Step 16 : build the item and check the output in console output



The screenshot shows the Jenkins web interface with the 'Console Output' tab selected for a build named 'Docker/6'. The output log shows the following steps:

- Started by user bhavana sree
- Obtained Jenkinsfile from git https://github.com/bhavanas85/devopsDocker.git
- [Pipeline] Start of Pipeline
- [Pipeline] node
- Running on Jenkins in /var/lib/jenkins/workspace/Docker
- [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/Docker/.git # timeout=10
- Fetching changes from the remote Git repository
- > git config remote.origin.url https://github.com/bhavanas85/devopsDocker.git # timeout=10
- Fetching upstream changes from https://github.com/bhavanas85/devopsDocker.git
- > git --version # timeout=10
- > git --version # 'git version 2.43.0'
- > git fetch --tags --force --progress -- https://github.com/bhavanas85/devopsDocker.git +refs/heads/\*:refs/remotes/origin/\* # timeout=10
- > git rev-parse origin/main # timeout=10
- Checking out Revision #7a05927e68ba5fe36cda232935b5ba09a92bef (origin/main)
- > git config core.sparsecheckout # timeout=10
- > git checkout -f e7a0927e68ba5fe36cda232935b5ba09a92bef # timeout=10
- Commit message: "second"
- > git rev-list --no-walk 5c0ff91326f3e54c3f62a54487ace88fcb7ef57d # timeout=10
- [Pipeline] }
- [Pipeline] // stage
- [Pipeline] withEnv
- [Pipeline] {
- [Pipeline] withEnv
- [Pipeline] {
- [Pipeline] stage
- [Pipeline] { (Checkout Code)

Step 17 : run the localhost:5001



