STEP 1:

UPDATE PACKAGES

```
selya2@MANOJ:/home/selya2/docker-app/devops-day2 sudo apt update
```

STEP 2:

INSTALL DOCKER

```
selya2@MANOJ:/home/selya2/docker-app/devops-day2 sudo apt install -y docker.io
```

STEP 3:
START AND ENABLE THE JENKINS

```
selya2@MANOJ:/home/selya2/docker-app/devops-day2 sudo systemctl start jenkins
selya2@MANOJ:/home/selya2/docker-app/devops-day2 sudo systemctl enable jenkins
selya2@MANOJ:/home/selya2/docker-app/devops-day2 sudo systemctl status jenkins
```

STEP 4:
USE THE CURL COMMAND

```
selya2@MANOJ:/home/selya2/docker-app/devops-day2 sudo curl -L "https://github.com/docker/compose
```

STEP 5:
USE chnmod COMMAND

```
selya2@MANOJ:/home/selya2/docker-app/devops-day2 sudo chmod +x /usr/local/bin/docker-compose
selya2@MANOJ:/home/selya2/docker-app/devops-day2 docker-compose -v
```

STEP 6:
‘

CREATE A DIRECTORY AND CHANGE INTO THE DIRECTORY

```
selya2@MANOJ:/home/selya2/docker-app/devops-day2 mkdir ~/docker-app
selya2@MANOJ:/home/selya2/docker-app/devops-day2 cd docker-app/
```

STEP 7:

CREATE NANO FILE CALLED “app.py”
CREATE NANO FILE CALLED “requirements.txt”

```
selya2@MANOJ:/home/selya2/docker-app/devops-day2 nano app.py
selya2@MANOJ:/home/selya2/docker-app/devops-day2 nano requirements.txt
```

STEP 8:

USE cat COMMAND FOR “app.py”

```
from flask import Flask

app = Flask(__name__)

@app.route("/")
def hello():
    return "Hello, world!"

if __name__ == "__main__":
    app.run(host="0.0.0.0", port=5000)
```

STEP 9

```
selya2@MANOJ:~/docker-app/devops-day2$ cat requirements.txt
flask
```

STEP 10

```
selya2@MANOJ:~/docker-app/devops-day2$ cat Dockerfile
FROM python:3.11

# Set the working directory
WORKDIR /app

# Copy the requirements file and install dependencies
COPY requirements.txt /app/
RUN pip install --no-cache-dir -r requirements.txt

# Copy the rest of the application files
COPY . /app/

# Expose the application port
EXPOSE 5000

# Define the command to run the app
CMD ["python", "app.py"]
```

STEP 11:

```
selya2@MANOJ:~/docker-app/devops-day2$ cat docker-compose.yml
version: '3.8'

services:
  app:  # 🔹 Name of the service (you can change it)
    build: .
    ports:
      - "5000:5000"
    volumes:
      - .:/app
    restart: always
```

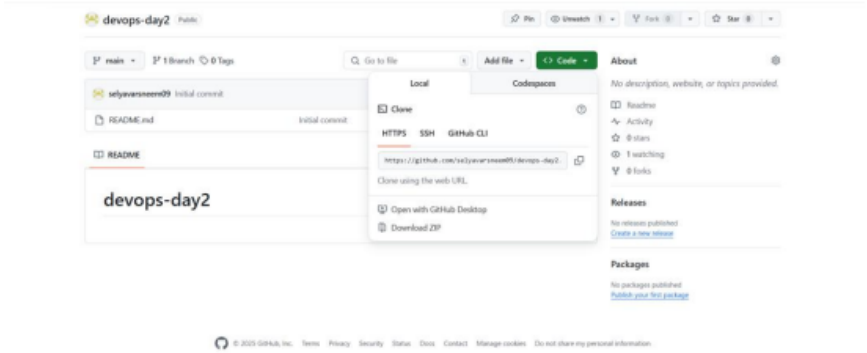
STEP 12:
NOW BUILD DOCKER USING docker-compose build COMMAND

```
selya2@MANOJ:/home/selya2/docker-app/devops-day2 sudo docker-compose build
selya2@MANOJ:/home/selya2/docker-app/devops-day2 sudo docker-compose up -d
selya2@MANOJ:/home/selya2/docker-app/devops-day2 sudo docker ps
```

STEP 13:
NOW RUN THE LOCALHOST PORT:5000

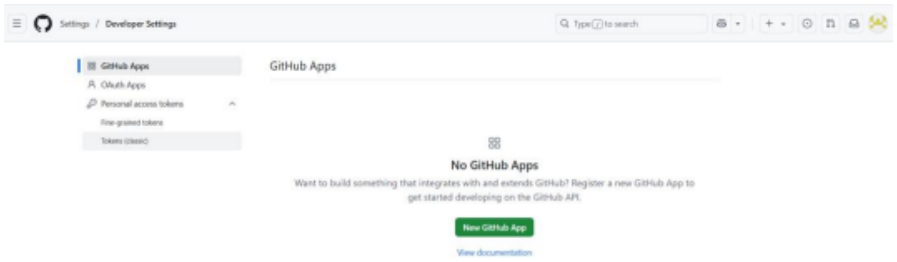
Hello, world!

STEP 14:
CREATE A REPOSITORY AND COPY THE URL

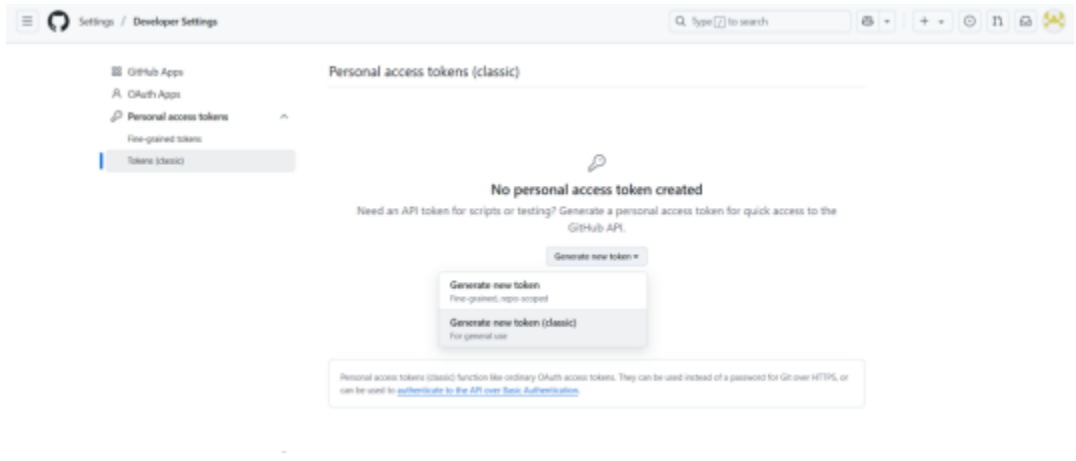


STEP 15:

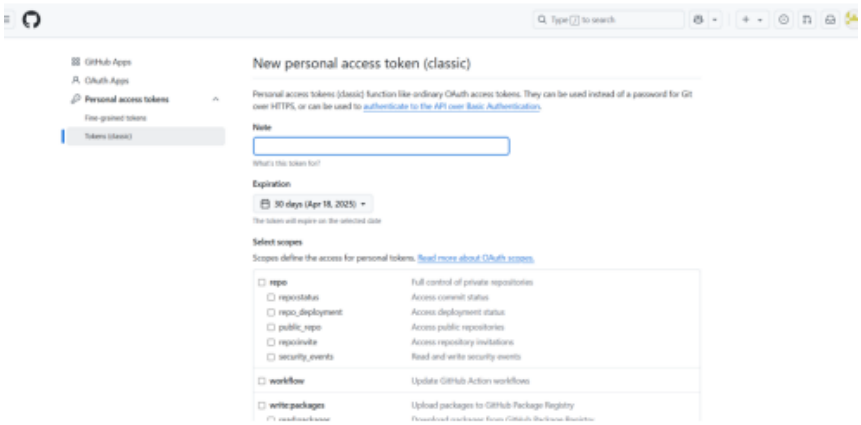
GENERATE NEW TOKEN



STEP 16:

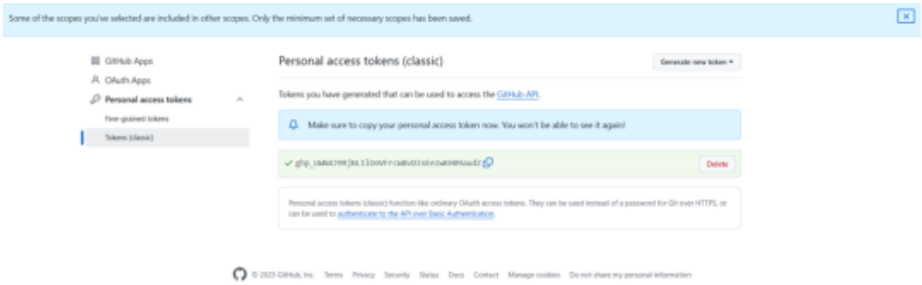


STEP 17



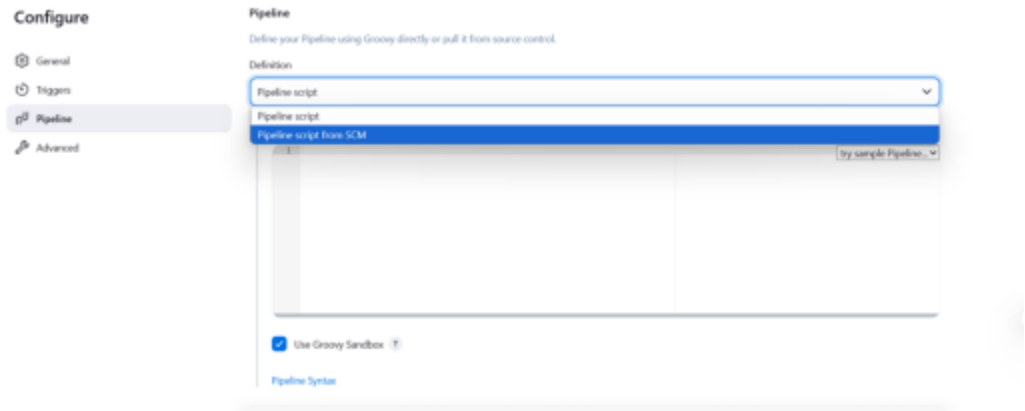
STEP 18:

GENERATE TOKEN

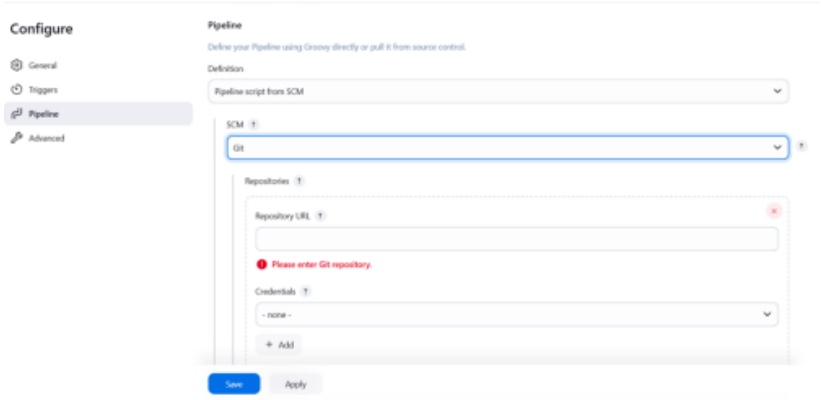


STEP 19:

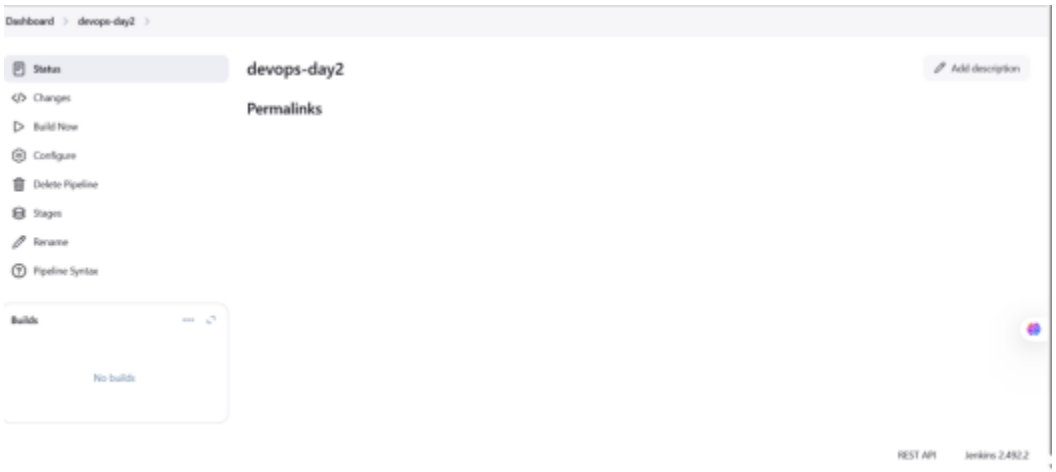
CREATE PIPELINE



STEP 20:



STEP 21:



STEP 22:

CLONE THE REMOTE REPO

```
selya11@LAPTOP-0R6BSQFD:~/devops-proj$ git clone https://github.com/selyavarsneem09/devops-day2.git
```

STEP 23:

ENTER INTO THE REPO AND LIST THE FILES

```
selya2@MANOJ:~/docker-app$ cd devops-day2/
selya2@MANOJ:~/docker-app/devops-day2$ ls
Dockerfile  README.md  app.py  devops-day2  docker-compose.yml  requirements.txt
```

STEP 24:

ADD THE FILES AND VERIFY THE STATUS

```
selya2@MANOJ:~/docker-app/devops-day2$ git add .
selya2@MANOJ:~/docker-app/devops-day2$ git status
On branch main
Your branch is up to date with 'origin/main'.

Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        new file:   Dockerfile
        new file:   app.py
        new file:   devops-day2
        new file:   docker-compose.yml
        new file:   requirements.txt
```

STEP 25:

COMMIT THE CHANGES

```
selya2@MANOJ:~/docker-app/devops-day2$ git commit -m "first commit"
Author identity unknown

*** Please tell me who you are.

Run

  git config --global user.email "you@example.com"
  git config --global user.name "Your Name"

to set your account's default identity.
Omit --global to set the identity only in this repository.

fatal: empty ident name (for <selya2@MANOJ.>) not allowed
```

STEP 26:

CONFIGURE USING THE USER EMAIL AND USERNAME

```
selya2@MANOJ:~/docker-app/devops-day2$ git config --global user.email "selyadharsneemuthusamy@gmail.com"
selya2@MANOJ:~/docker-app/devops-day2$ git config --global user.name "selya911"
```

STEP 27:

PUSH THE CHANGES INTO THE REPO

```
selya2@MANOJ:~/docker-app/devops-day2$ git remote set-url origin https://selya911: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@github.com/selya911/devops
selya2@MANOJ:~/docker-app/devops-day2$ git push origin main
```

STEP28:

CREATE A NANO FILE FOR JENKINS AND ADD,COMMIT IN TO THE REPOSITORY

```
selya2@MANOJ:~/docker-app/devops-day2$ nano jenkinsfile
selya2@MANOJ:~/docker-app/devops-day2$ git add jenkinsfile
selya2@MANOJ:~/docker-app/devops-day2$ git add .
selya2@MANOJ:~/docker-app/devops-day2$ git commit -m "added jenkins"
[main 447795c] added jenkins
 1 file changed, 67 insertions(+)
 create mode 100644 jenkinsfile
selya2@MANOJ:~/docker-app/devops-day2$ git push https://selya911: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@github.com/selya911/devops-day2.git
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 8 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 947 bytes | 947.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/selya911/devops-day2.git
   66a793f..447795c  main -> main
```

STEP 29:

GO TO JENKINS AND SELECT “BUILD NOW”

```
Started by user selya varsnee muthusamy
Obtained Jenkinsfile from git https://github.com/selyavarsneem09/devops-day2.git
[Pipeline] Start of Pipeline
[Pipeline] node
Running on Jenkins in /var/lib/jenkins/workspace/devops-day2
[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/devops-day2/.git # timeout=10
Fetching changes from the remote Git repository
 > git config remote.origin.url https://github.com/selyavarsneem09/devops-day2.git # timeout=10
Fetching upstream changes from https://github.com/selyavarsneem09/devops-day2.git
 > git --version # timeout=10
 > git --version # 'git version 2.43.0'
 > git fetch --tags --force --progress -- https://github.com/selyavarsneem09/devops-day2.git +refs/heads/*:refs/remotes/origin/* # timeout=10
 > git rev-parse origin/main^{commit} # timeout=10
Checking out Revision b526f20d7bcb73498bfb80608ce77ee107b67959 (origin/main)
 > git config core.sparsecheckout # timeout=10
 > git checkout -f b526f20d7bcb73498bfb80608ce77ee107b67959 # timeout=10
Commit message: "commit"
 > git rev-list --no-walk b526f20d7bcb73498bfb80608ce77ee107b67959 # timeout=10
[Pipeline] }
```

STEP 30:

YOU SHOULD BE NOW ABLE TO SEE THE MESSAGE