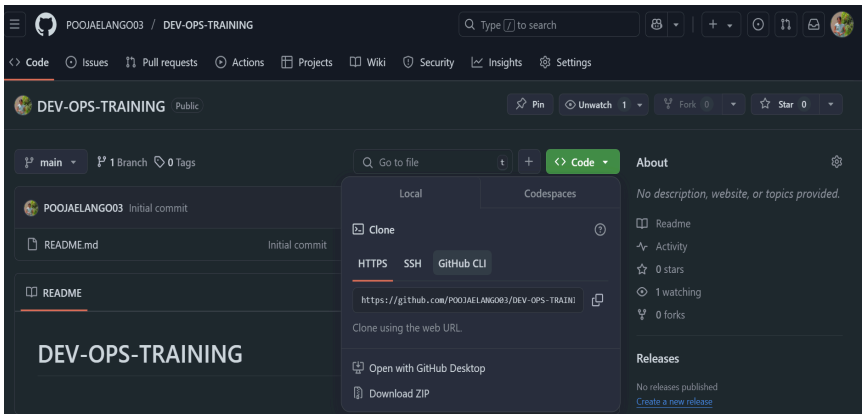
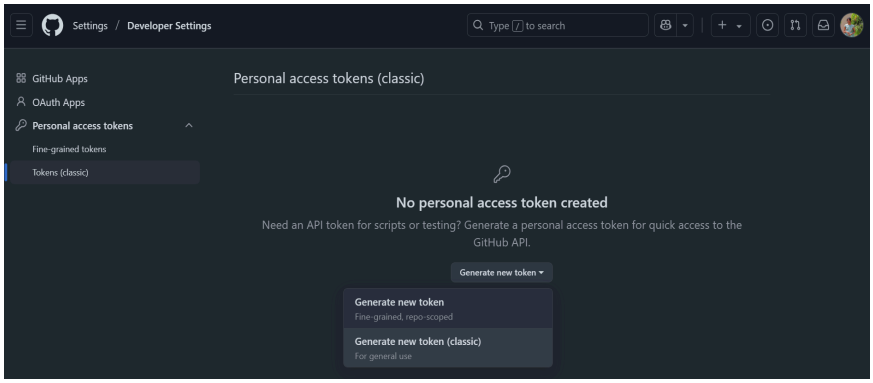
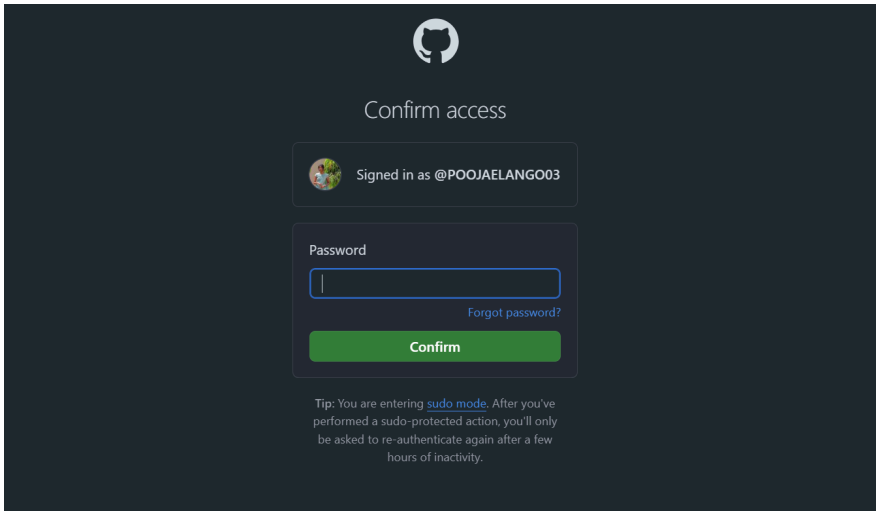
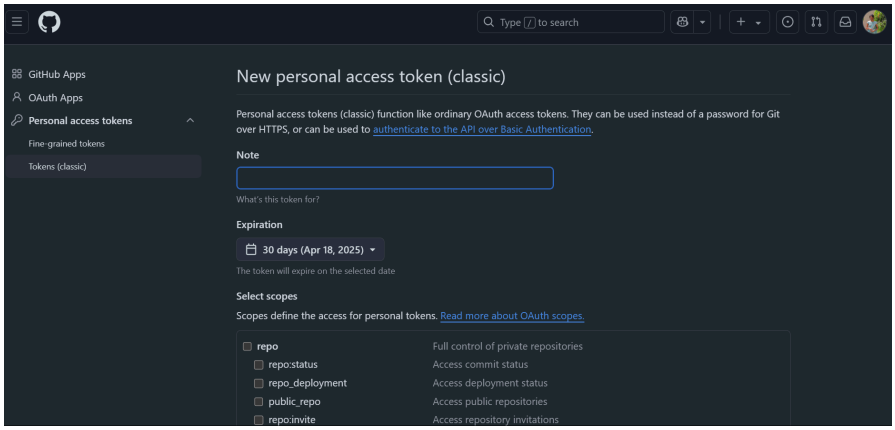
DEVOPS

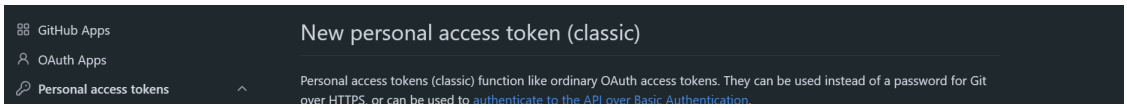
STEPS TO CREATE AND SETUP:








Type / to search
GitHub Apps
OAuth Apps
Personal access tokens
Fine-grained tokens
Tokens (classic)
New personal access token (classic)
Personal access tokens (classic) function like ordinary OAuth access tokens. They can be used instead of a password for Git over HTTPS, or can be used to authenticate to the API over Basic Authentication.
Note
What's this token for?
Expiration
30 days (Apr 18, 2025)
The token will expire on the selected date
Select scopes
Scopes define the access for personal tokens. Read more about OAuth scopes.
repo
Full control of private repositories
repo:status
Access commit status
repo_deployment
Access deployment status
public_repo
Access public repositories
repo:invite
Access repository invitations


GitHub Apps
OAuth Apps
Personal access tokens
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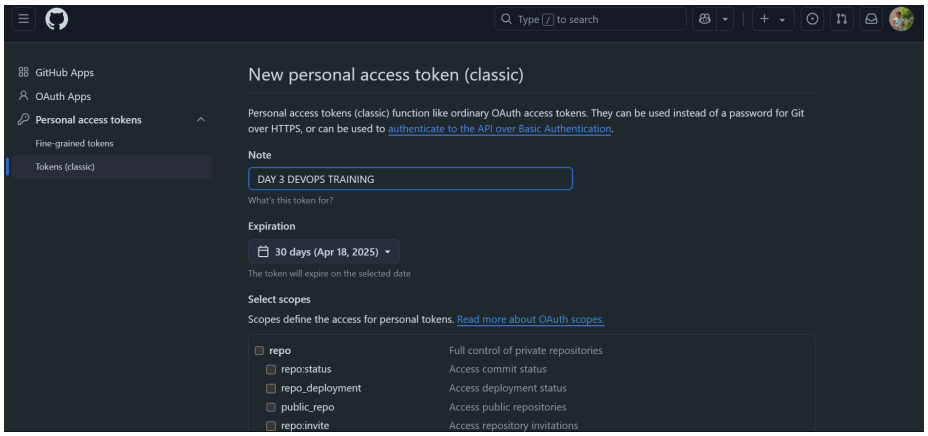
Type / to search
GitHub Apps
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Note
DAY 3 DEVOPS TRAINING
What's this token for?
Expiration
30 days (Apr 18, 2025)
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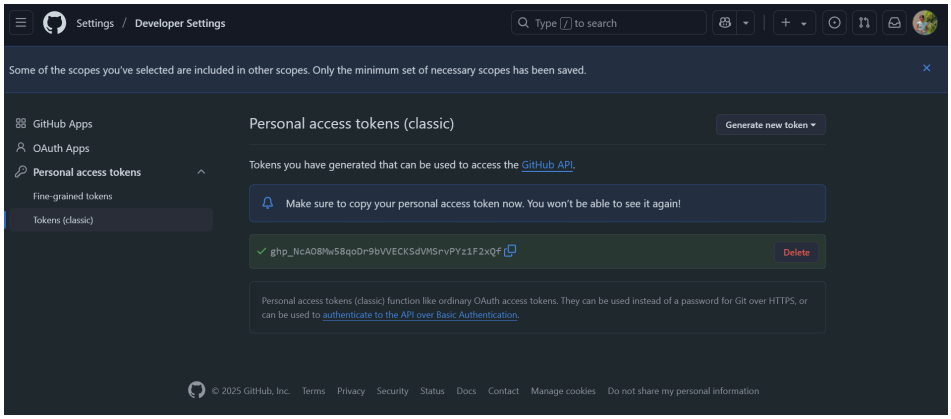
Select scopes
Scopes define the access for personal tokens. Read more about OAuth scopes.
repo
Full control of private repositories
repo:status
Access commit status
repo_deployment
Access deployment status
public_repo
Access public repositories
repo:invite
Access repository invitations


Settings / Developer Settings
Type / to search
Some of the scopes you've selected are included in other scopes. Only the minimum set of necessary scopes has been saved.
GitHub Apps
OAuth Apps
Personal access tokens
Fine-grained tokens
Tokens (classic)
Personal access tokens (classic)
Generate new token
Tokens you have generated that can be used to access the GitHub API.
Make sure to copy your personal access token now. You won't be able to see it again!
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
Delete
Personal access tokens (classic) function like ordinary OAuth access tokens. They can be used instead of a password for Git over HTTPS, or can be used to authenticate to the API over Basic Authentication.
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STARTING AND VERIFYING JENKINS SERVICE ON LINUX:

The terminal session showing the process of managing a Jenkins server on a Linux system using `systemctl`, a command-line tool for controlling the systemd system and service manager.

1. Enable Jenkins:

- Command: `sudo systemctl enable jenkins`

- This command enables the Jenkins service to start automatically at boot.

2. Start Jenkins:

- Command: `sudo systemctl start jenkins`

- This command starts the Jenkins service immediately.

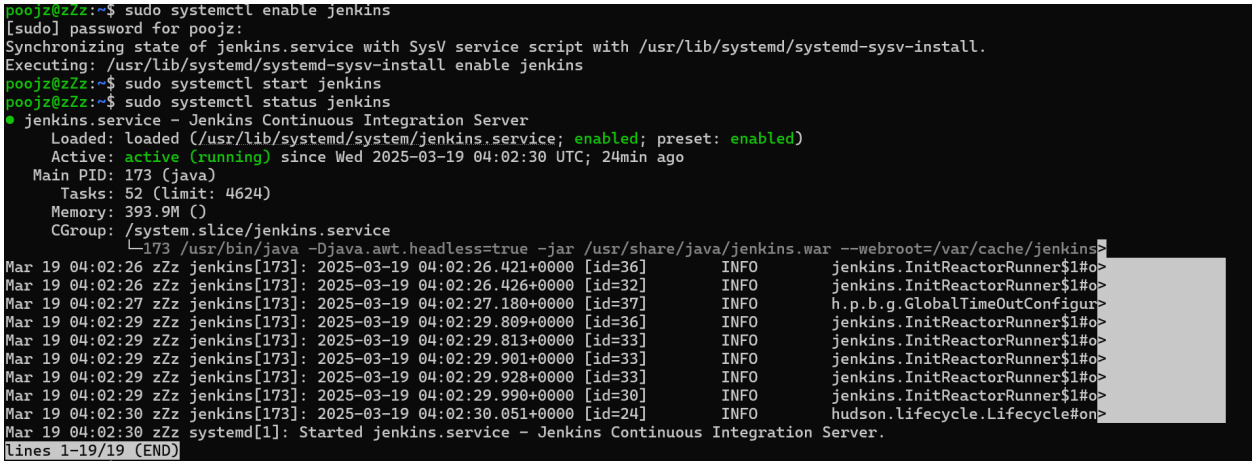
3. Check Jenkins Status:

- Command: `sudo systemctl status jenkins`

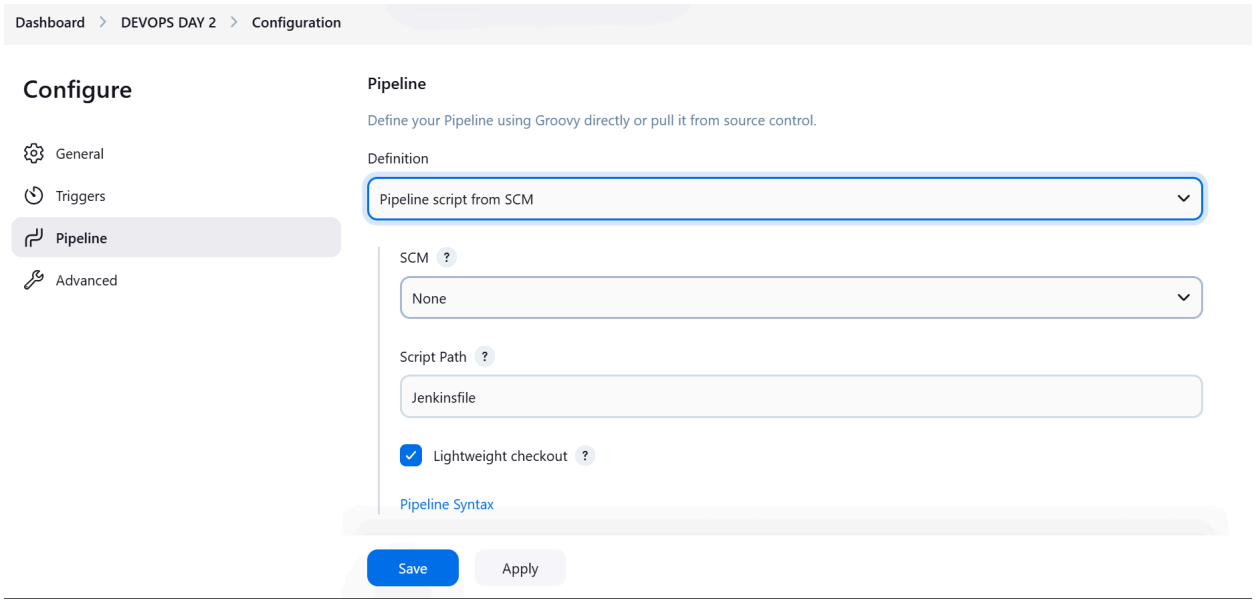
- Displays the current status of the Jenkins service, indicating that it is "active (running)" and shows additional details about the service, including its main process ID (PID) and memory usage.

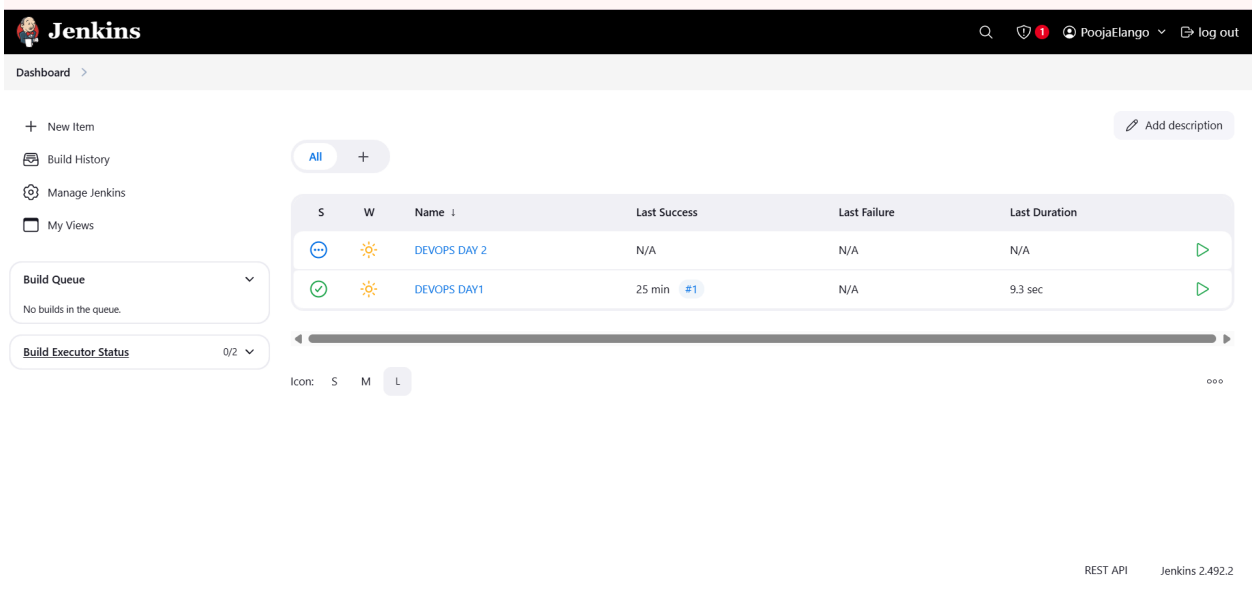
The Summary:

The session demonstrates the successful initialization and management of a Jenkins Continuous Integration server, indicating its readiness for use. The service was started successfully and is currently running smoothly. It also provides insight into the internal processes Jenkins follows during startup.



NEXT STEPS TO SETUP:





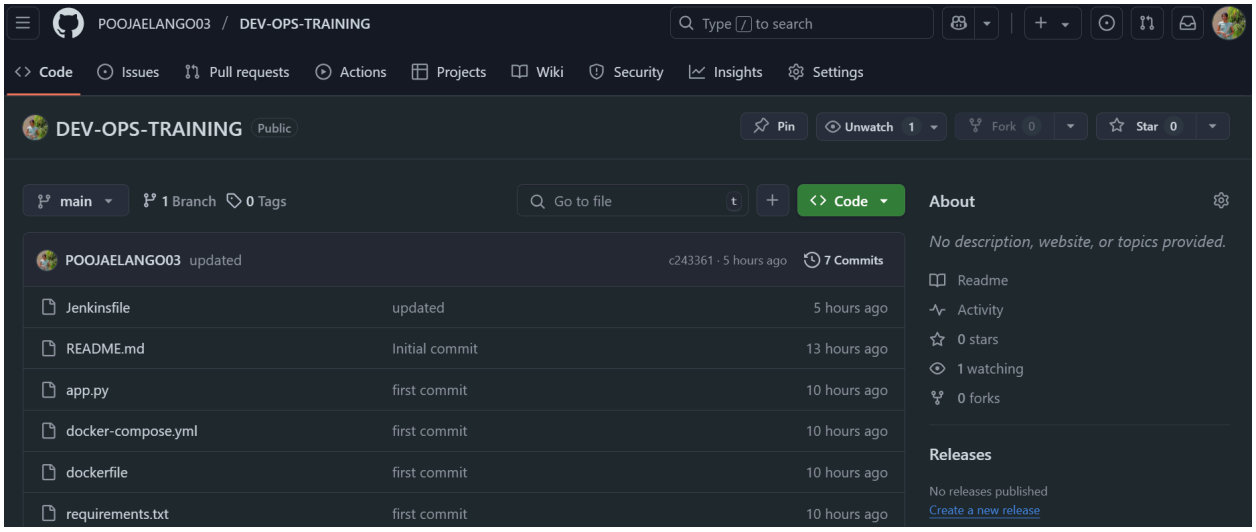
COMMITTING AND PUSHING CHANGES TO GITHUB IN A DEVOPS PROJECT:

The terminal session where the user is working with a Git repository named DEV-OPS-TRAINING. The steps performed include:

1. Listing the repository files, including Jenkinsfile, README.md, docker-compose.yml, dockerfile, and requirements.txt.
2. Editing the Jenkinsfile using nano.
3. Staging changes with git add ..
4. Committing the changes with the message "updated".
5. Pushing the changes to a remote GitHub repository using a personal access token for authentication.

The process successfully pushes updates to the main branch on GitHub.

```
poojz@zZz:~/devops/DEV-OPS-TRAINING$ ls
Jenkinsfile  README.md  app.py  docker-compose.yml  dockerfile  requirements.txt
poojz@zZz:~/devops/DEV-OPS-TRAINING$ nano Jenkinsfile
poojz@zZz:~/devops/DEV-OPS-TRAINING$ git add .
poojz@zZz:~/devops/DEV-OPS-TRAINING$ git commit -m "updated"
[main 1da264c] updated
 1 file changed, 1 insertion(+)
poojz@zZz:~/devops/DEV-OPS-TRAINING$ git push https://POOJAELANGO03: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@github.com/POOJAELANGO03
/DEV-OPS-TRAINING.git
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 4 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 309 bytes | 30.00 KiB/s, done.
Total 3 (delta 2), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (2/2), completed with 2 local objects.
To https://github.com/POOJAELANGO03/DEV-OPS-TRAINING.git
   5a43f41..1da264c  main -> main
```



GRANTING JENKINS DOCKER ACCESS AND RESTARTING SERVICE:

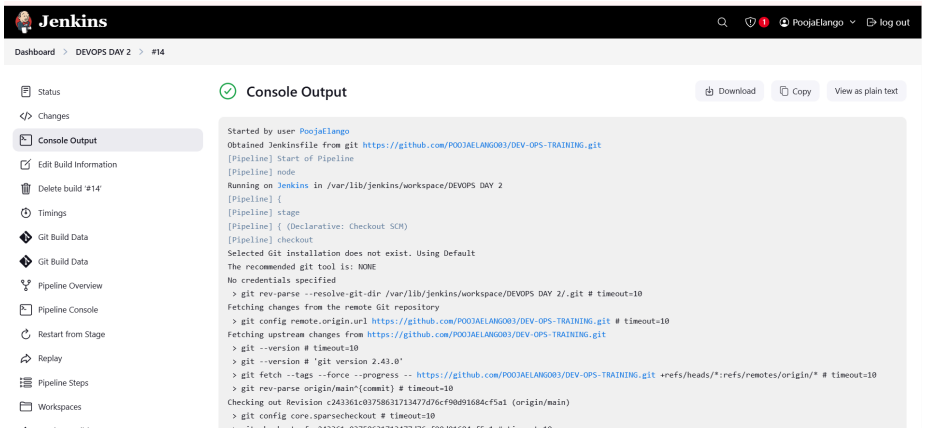
The terminal session where the user is managing Jenkins and Docker permissions. The following commands are executed:

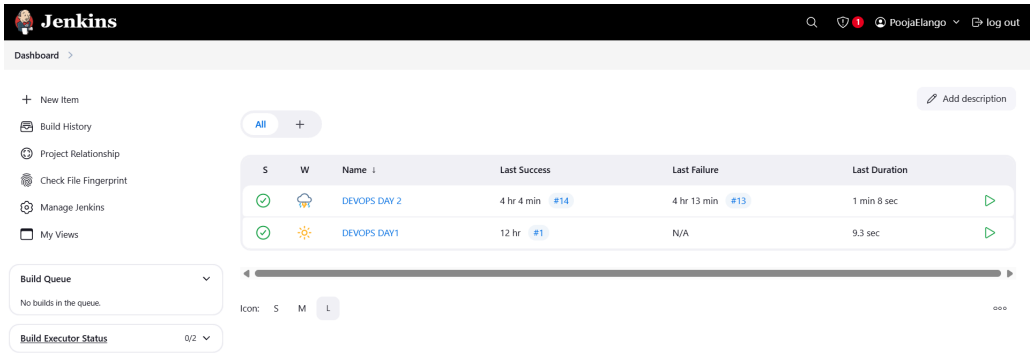
1. **`sudo usermod -aG docker jenkins`** – Adds the Jenkins user to the Docker group, allowing it to run Docker commands without requiring sudo privileges.
2. **`sudo systemctl restart jenkins`** – Restarts the Jenkins service to apply the changes made to its user permissions.

These steps are typically done to enable Jenkins to interact with Docker seamlessly in a CI/CD pipeline.

```
poojz@zZz:~/devops/DEV-OPS-TRAINING$ sudo usermod -aG docker jenkins
poojz@zZz:~/devops/DEV-OPS-TRAINING$ sudo systemctl restart jenkins
```

JENKINS DASHBOARD OVERVIEW:





DOCKER HUB REPOSITORY OVERVIEW FOR poojaelango/docker-app: