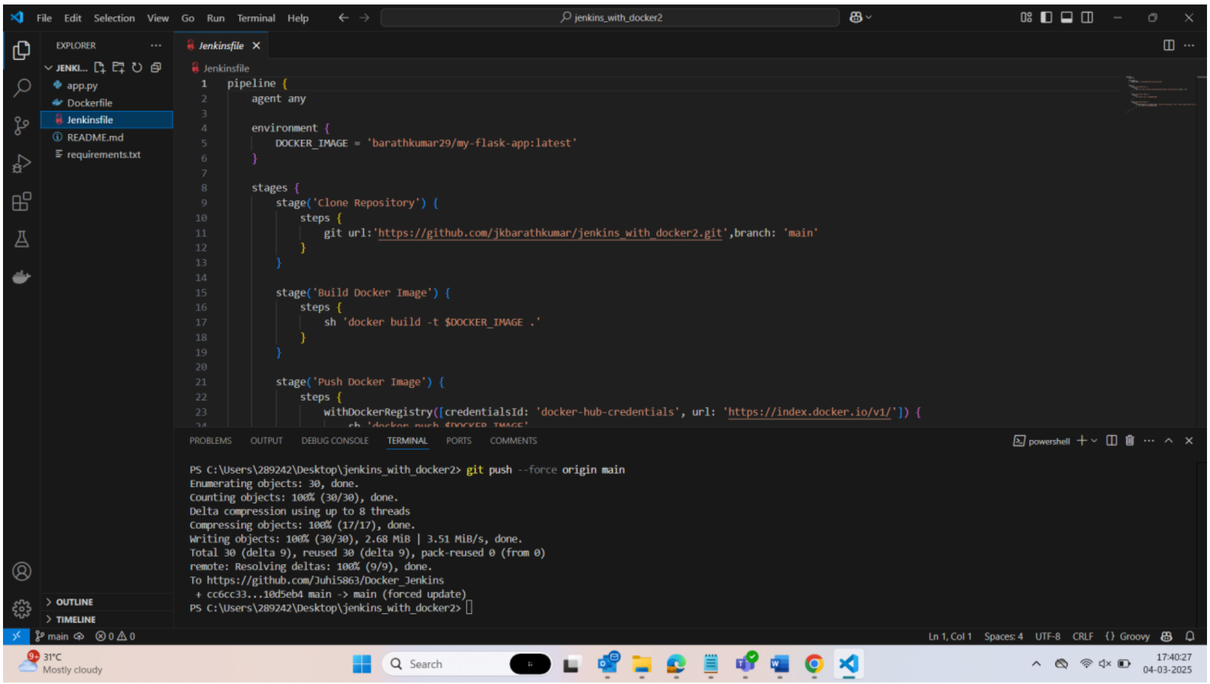
Assignment - 1

Automate docker built and push using Jenkinsfile

1. Setup a Simple Flask App

DEMO

- App.py
- Requirement.txt
- Dockerfile
- Jenkinsfile

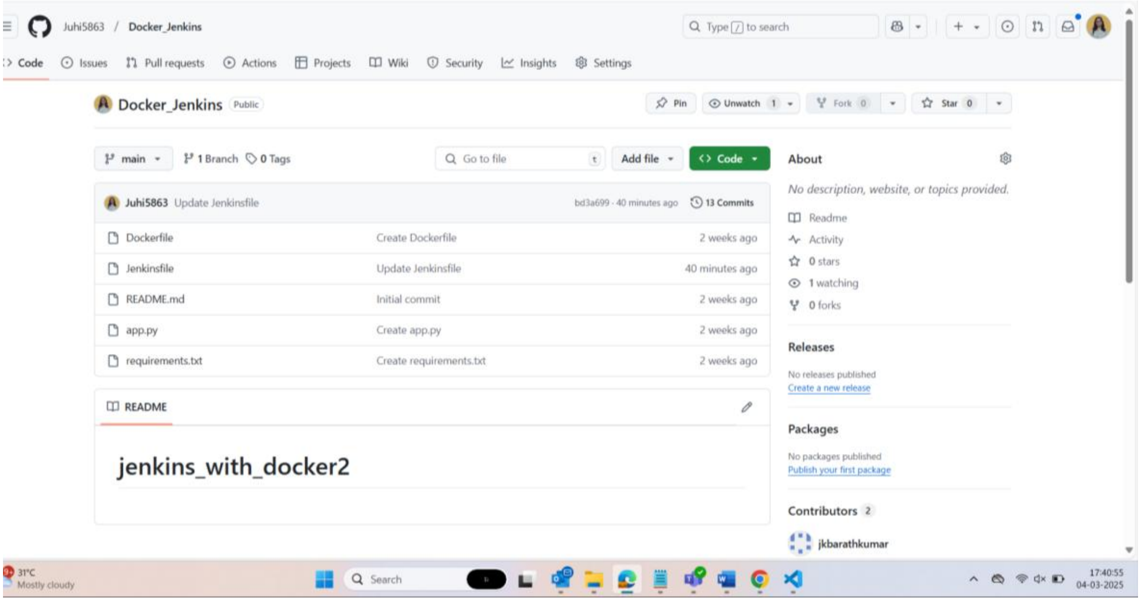


```
pipeline {
    agent any

    environment {
        DOCKER_IMAGE = 'barathkumar29/my-flask-app:latest'
    }

    stages {
        stage('Clone Repository') {
            steps {
                git url:'https://github.com/jkbarathkumar/jenkins_with_docker2.git',branch: 'main'
            }
        }

        stage('Build Docker Image') {
            steps {
                sh 'docker build -t $DOCKER_IMAGE .'
            }
        }

        stage('Push Docker Image') {
            steps {
                withDockerRegistry([credentialsId: 'docker-hub-credentials', url: 'https://index.docker.io/v1/']) {
                    sh 'docker push $DOCKER_IMAGE'
```

```
PS C:\Users\289242\Desktop\jenkins_with_docker2> git push --force origin main
Enumerating objects: 30, done.
Counting objects: 100% (30/30), done.
Delta compression using up to 8 threads
Compressing objects: 100% (17/17), done.
Writing objects: 100% (30/30), 2.68 MiB | 3.51 MiB/s, done.
Total 30 (delta 9), reused 30 (delta 9), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (9/9), done.
To https://github.com/Juhi5863/Docker_Jenkins
 + cc6cc33...10d5eb4 main -> main (forced update)
PS C:\Users\289242\Desktop\jenkins_with_docker2>
```

GitHub link for the code: https://github.com/Juhi5863/Docker_jenkins

2. Push the code to the GITHUB



Docker_Jenkins Public

Juhi5863 Update Jenkinsfile bd3a699 · 40 minutes ago 13 Commits

Dockerfile	Create Dockerfile	2 weeks ago
Jenkinsfile	Update Jenkinsfile	40 minutes ago
README.md	Initial commit	2 weeks ago
app.py	Create app.py	2 weeks ago
requirements.txt	Create requirements.txt	2 weeks ago

README

jenkins_with_docker2

About

No description, website, or topics provided.

Readme
Activity
0 stars
1 watching
0 forks

Releases

No releases published
Create a new release

Packages

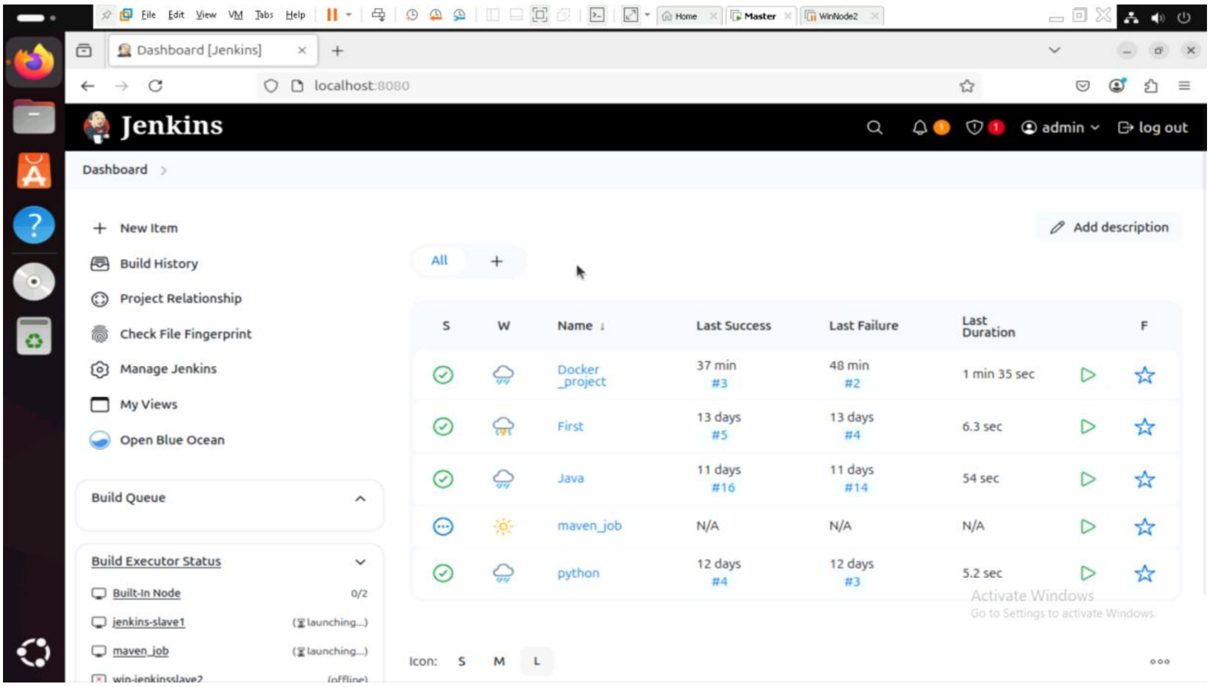
No packages published
Publish your first package

Contributors 2

jkbarathkumar

3. Configure Docker Hub Credentials in Jenkins

4. Create a New Pipeline in Jenkins



New Item
Build History
Project Relationship
Check File Fingerprint
Manage Jenkins
My Views
Open Blue Ocean

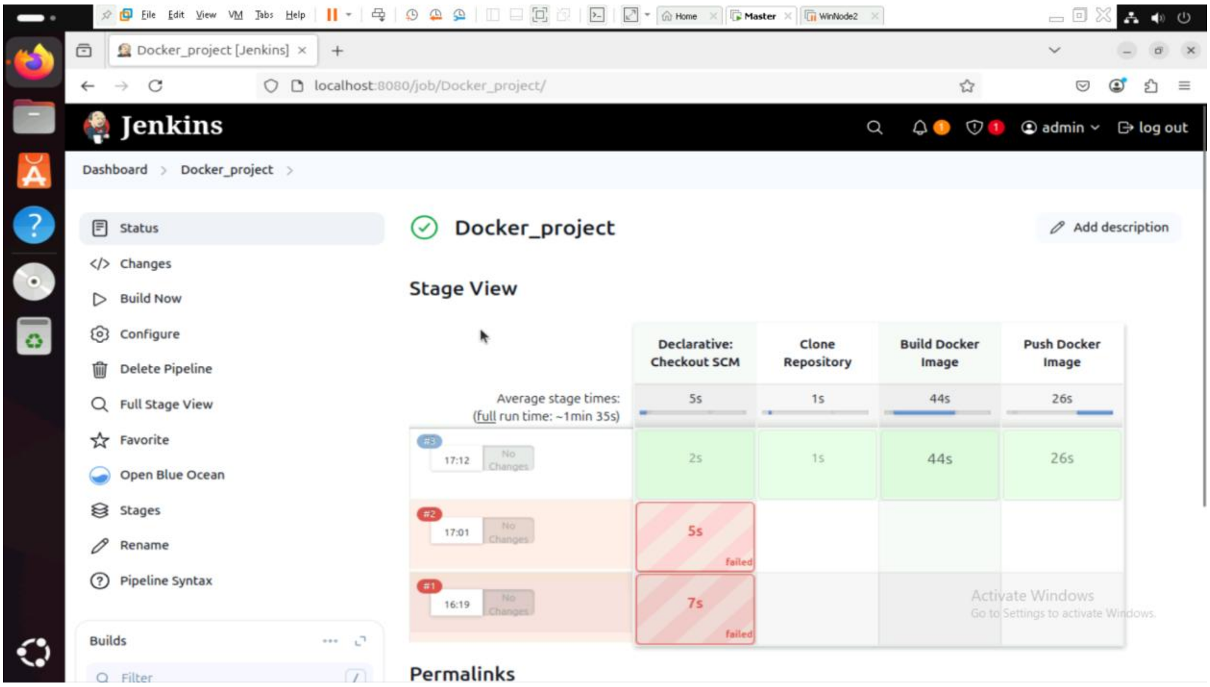
Build Queue

Build Executor Status

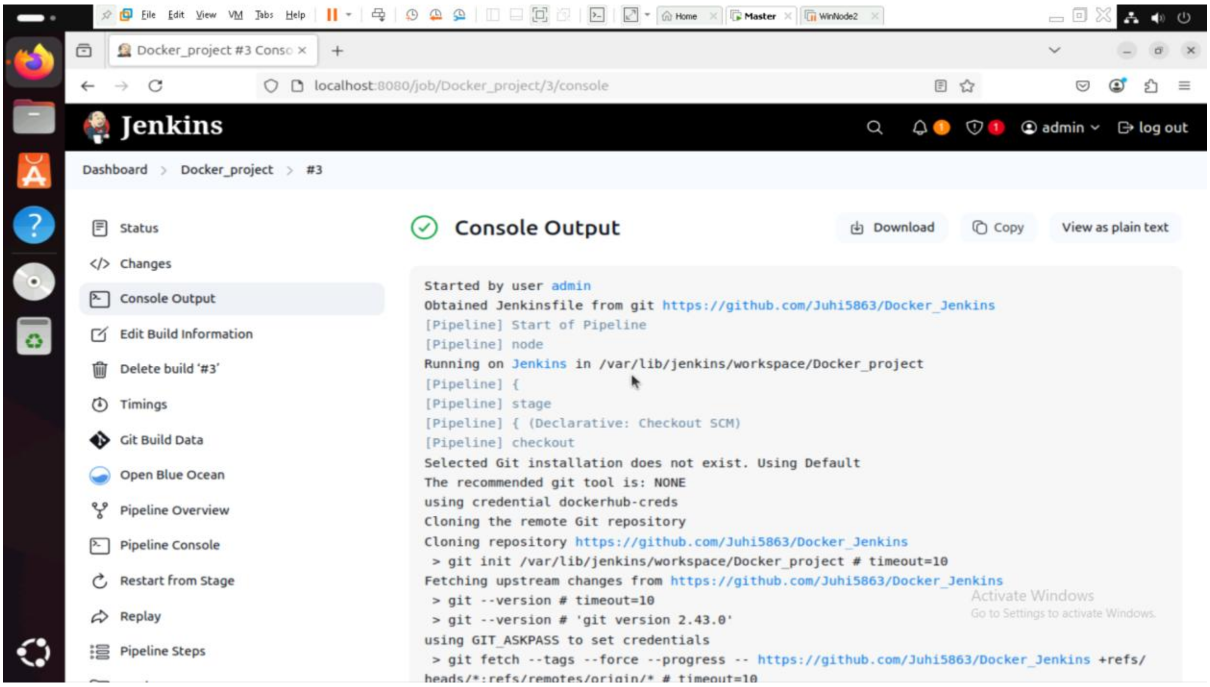
Built-In Node	0/2
jenkins-slave1	(launching...)
maven_job	(launching...)
win-jenkinsslave2	(offline)

S	W	Name ↓	Last Success	Last Failure	Last Duration		F
✓		Docker _project	37 min #3	48 min #2	1 min 35 sec	▷	☆
✓		First	13 days #5	13 days #4	6.3 sec	▷	☆
✓		Java	11 days #16	11 days #14	54 sec	▷	☆
⋯	☀	maven_job	N/A	N/A	N/A	▷	☆
✓		python	12 days #4	12 days #3	5.2 sec	▷	☆

5. Click Build Now:

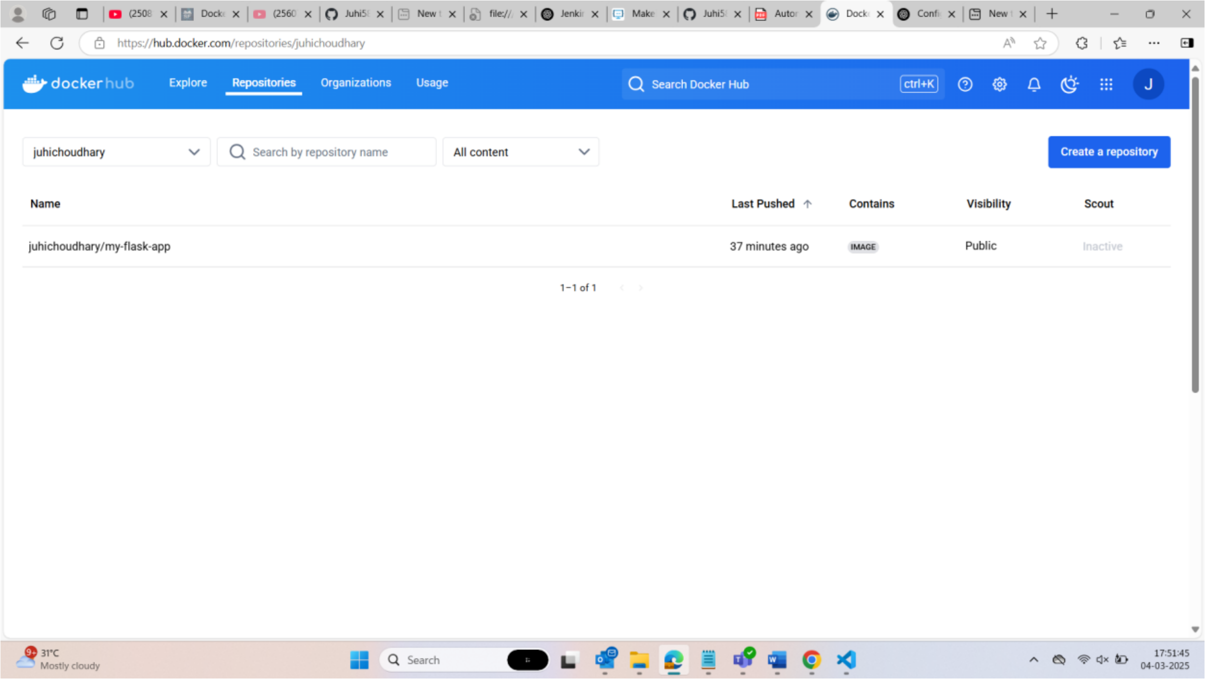


	Declarative: Checkout SCM	Clone Repository	Build Docker Image	Push Docker Image
Average stage times: (full run time: ~1min 35s)	5s	1s	44s	26s
#3 17:12 No Changes	2s	1s	44s	26s
#2 17:01 No Changes	5s failed			
#1 16:19 No Changes	7s failed			



```
Started by user admin
Obtained Jenkinsfile from git https://github.com/Juhi5863/Docker_Jenkins
[Pipeline] Start of Pipeline
[Pipeline] node
Running on Jenkins in /var/lib/jenkins/workspace/Docker_project
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Declarative: Checkout SCM)
[Pipeline] checkout
Selected Git installation does not exist. Using Default
The recommended git tool is: NONE
using credential dockerhub-creds
Cloning the remote Git repository
Cloning repository https://github.com/Juhi5863/Docker_Jenkins
 > git init /var/lib/jenkins/workspace/Docker_project # timeout=10
Fetching upstream changes from https://github.com/Juhi5863/Docker_Jenkins
 > git --version # timeout=10
 > git --version # 'git version 2.43.0'
using GIT_ASKPASS to set credentials
 > git fetch --tags --force --progress -- https://github.com/Juhi5863/Docker_Jenkins +refs/
heads/*:refs/remotes/origin/* # timeout=10
```

6. Verify Docker Image on Docker Hub



Name	Last Pushed	Contains	Visibility	Scout
juhichoudhary/my-flask-app	37 minutes ago	IMAGE	Public	Inactive

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