

# DevOps

## Day 2

**Date:** 18.03.2025

**Topics Covered:** Installation of Ubuntu WSL, Jenkins, Docker in Ubuntu and Master slave nodes

### Jenkins

**Installing Jenkins, Docker and pulling a git project and pushing to Docker Hub**

- Pushing a new Jenkinsfile to GitHub
- Pushing an image to Docker Hub with the Jenkinsfile from GitHub

```
sanchay@SANCHAY:/mnt/c/Users/sanch$ docker --version
Docker version 26.1.3, build 26.1.3-0ubuntu1~24.04.1
sanchay@SANCHAY:/mnt/c/Users/sanch$ jenkins --version
2.492.2
sanchay@SANCHAY:/mnt/c/Users/sanch$ |
```

Installations in Ubuntu

#### Commands:

Jenkinsfile in War project

```
pipeline {
```

```
    agent any
```

```
    tools {maven 'mvn'}
```

```
    stages {
```

```
        stage('scm') {
```

```
            steps {
```

```
                git 'https://github.com/Sanchay1054/WarProject.git'
```

```
            }
```

```
        }
```

```
        stage('build') {
```

```
            steps {
```

```
                sh "mvn clean"
```

```
                sh "mvn install"
```

```
    }
```

```

}

stage('build to images') {

    steps {

        script{

            sh 'docker build -t sanchaym/simplewebapp .'

        }

    }

}

stage('push to hub') {

    steps {

        script{

            withDockerRegistry(credentialsId: 'Docker', url: 'https://index.docker.io/v1/') {

                sh 'docker push sanchaym/simplewebapp'

            }

        }

    }

}

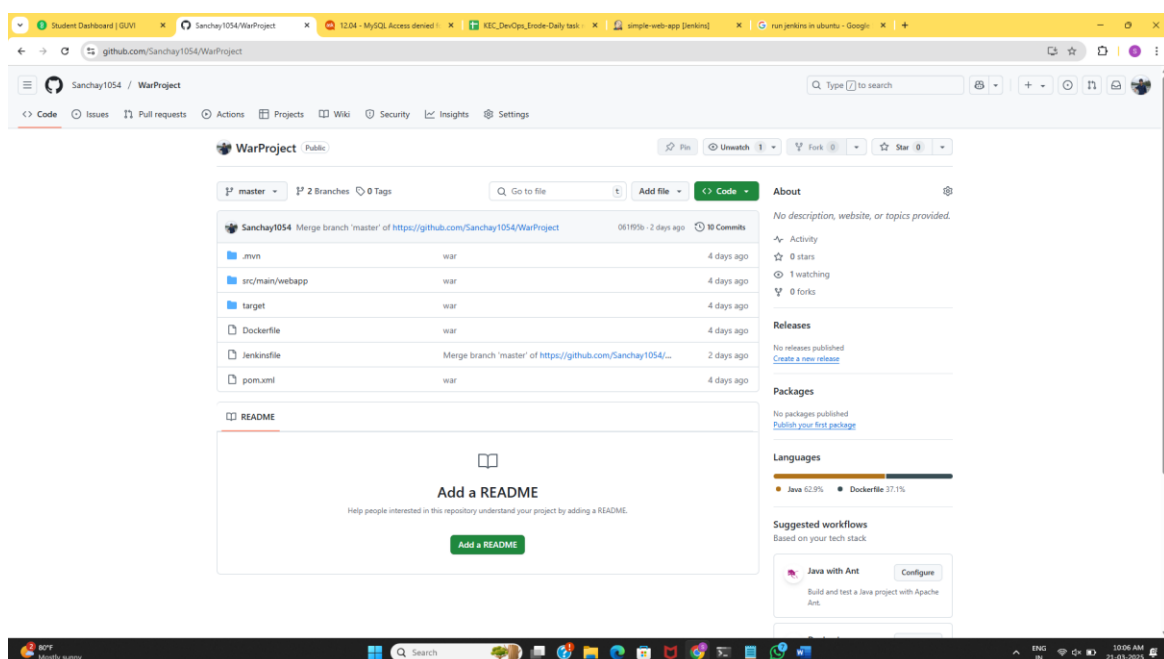
}

}

}

```

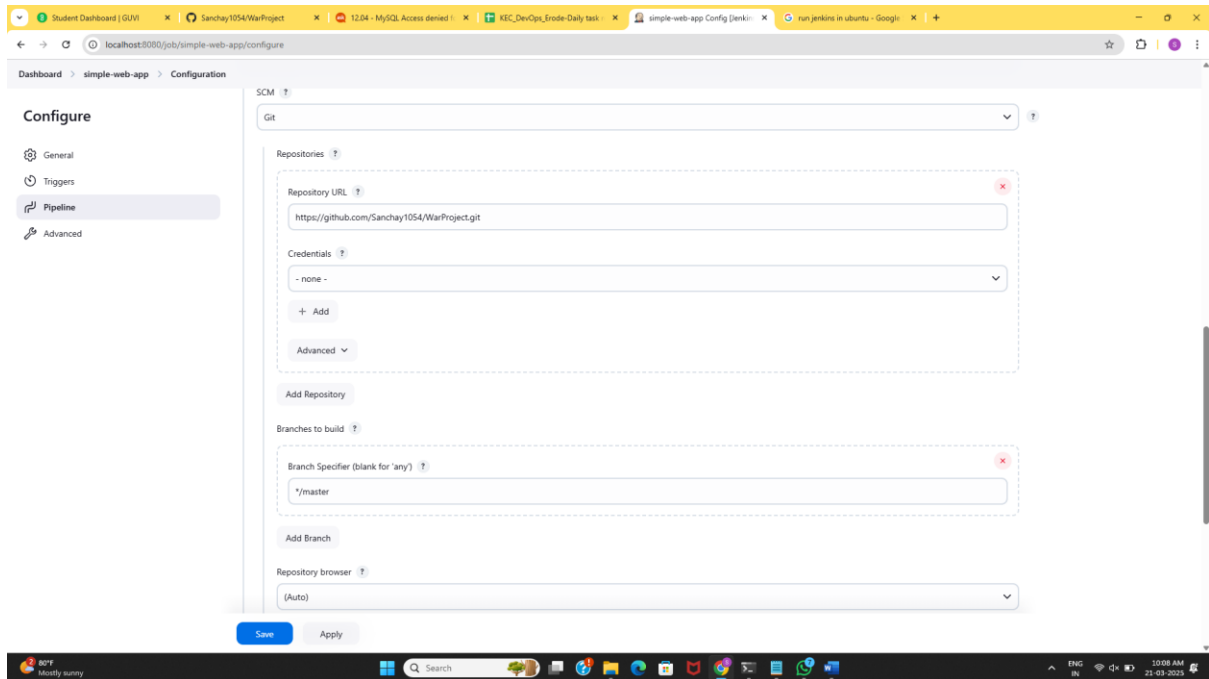
## Creating Jenkinsfile and pushing it to GitHub



## [GitHub](#) war project Repository

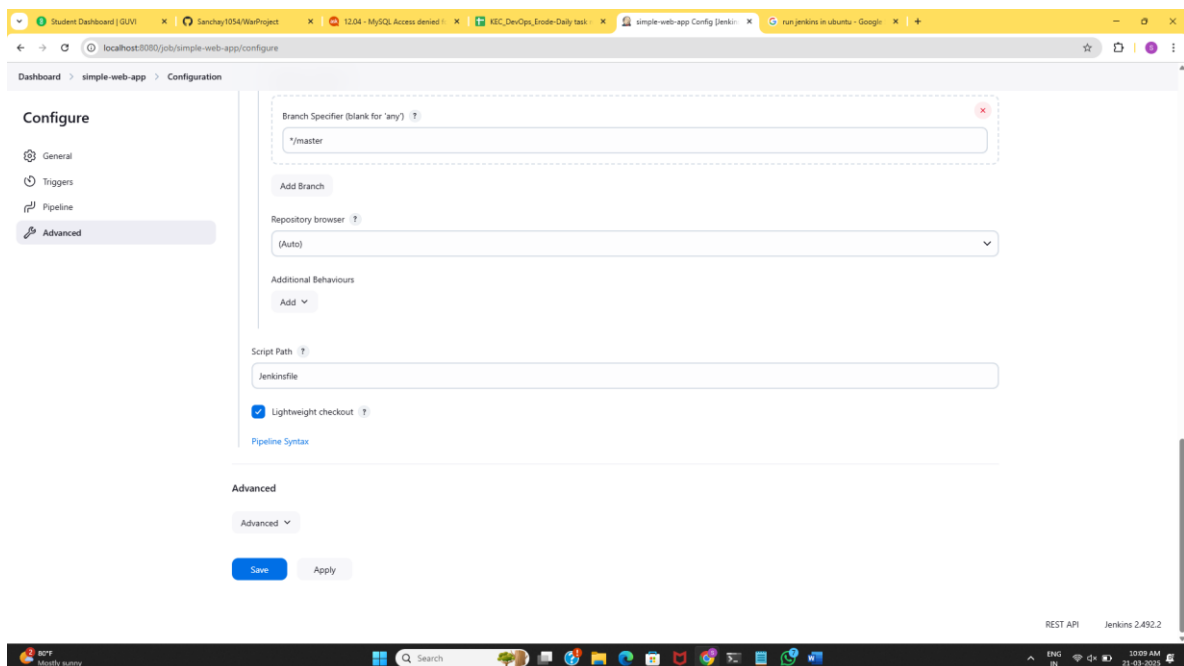
### Adding the GitHub link to the Jenkins

- Pulling the Jenkinsfile
- Running the Jenkinsfile from Jenkins
- Pushing the image to DockerHub



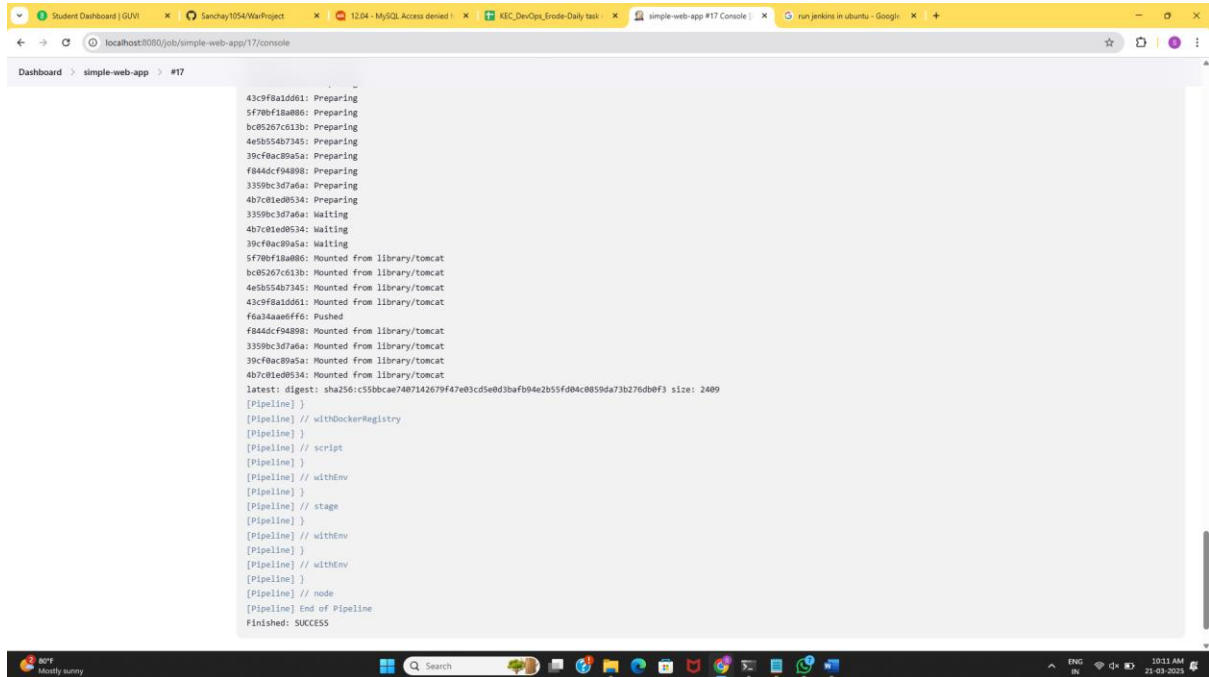
### Adding GitHub to Jenkins

### Script from Jenkinsfile



### Added Jenkinsfile to execute

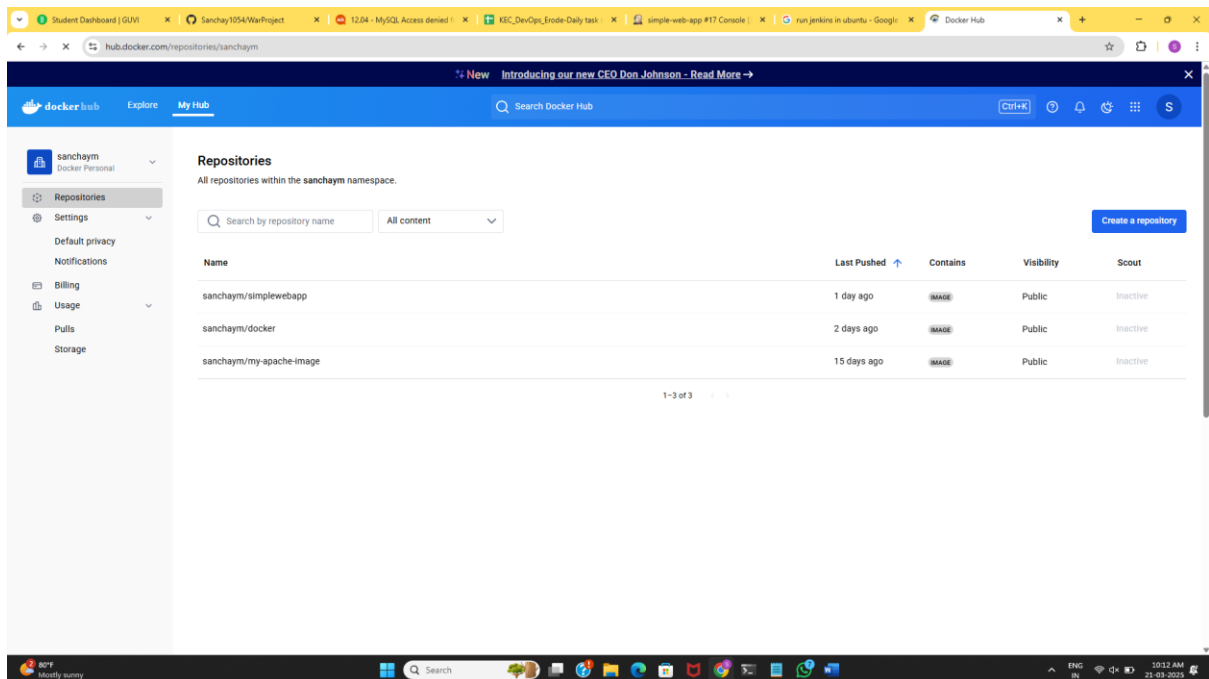
## Output:



The screenshot shows the Jenkins console output for a job named 'simple-web-app #17'. The output displays the steps of a Jenkins pipeline, including preparing and mounting images from a local library, pushing them to Docker Hub, and finally building and pushing the 'simplewebapp' image. The pipeline concludes with a 'Finished: SUCCESS' message.

```
43c9f8a1d061: Preparing
5f78bf18a886: Preparing
bc85267c613b: Preparing
4e5b554b7345: Preparing
39cf8ac89a5a: Preparing
f844dcf94898: Preparing
3359bc3d7afa: Preparing
4b7c01ed0634: Preparing
3359bc3d7afa: Waiting
4b7c01ed0634: Waiting
39cf8ac89a5a: Waiting
5f78bf18a886: Mounted from library/tomcat
bc85267c613b: Mounted from library/tomcat
4e5b554b7345: Mounted from library/tomcat
43c9f8a1d061: Mounted from library/tomcat
66a3aaef6f6: Pushed
f844dcf94898: Mounted from library/tomcat
3359bc3d7afa: Mounted from library/tomcat
39cf8ac89a5a: Mounted from library/tomcat
4b7c01ed0634: Mounted from library/tomcat
latest: digest: sha256:c55bcae7487142679f47eb93cd5e8d3ba7b94e2b55fd84c0859da73b276dbef3 size: 2489
[Pipeline] }
[Pipeline] // withDockerRegistry
[Pipeline] }
[Pipeline] // script
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // stage
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // node
[Pipeline] End of Pipeline
Finished: SUCCESS
```

## Pushed to Docker Hub from Jenkins



The screenshot shows the Docker Hub interface for the 'sanchaym' namespace. The 'Repositories' section lists three repositories: 'simplewebapp', 'docker', and 'my-apache-image'. The 'simplewebapp' repository is highlighted, showing it was pushed 1 day ago, has 1 image, and is public. The 'docker' repository was pushed 2 days ago and has 1 image. The 'my-apache-image' repository was pushed 15 days ago and has 1 image.

Name	Last Pushed	Contains	Visibility	Scout
sanchaym/simplewebapp	1 day ago	1 image	Public	Inactive
sanchaym/docker	2 days ago	1 image	Public	Inactive
sanchaym/my-apache-image	15 days ago	1 image	Public	Inactive

## War project Image pushed to Docker Hub