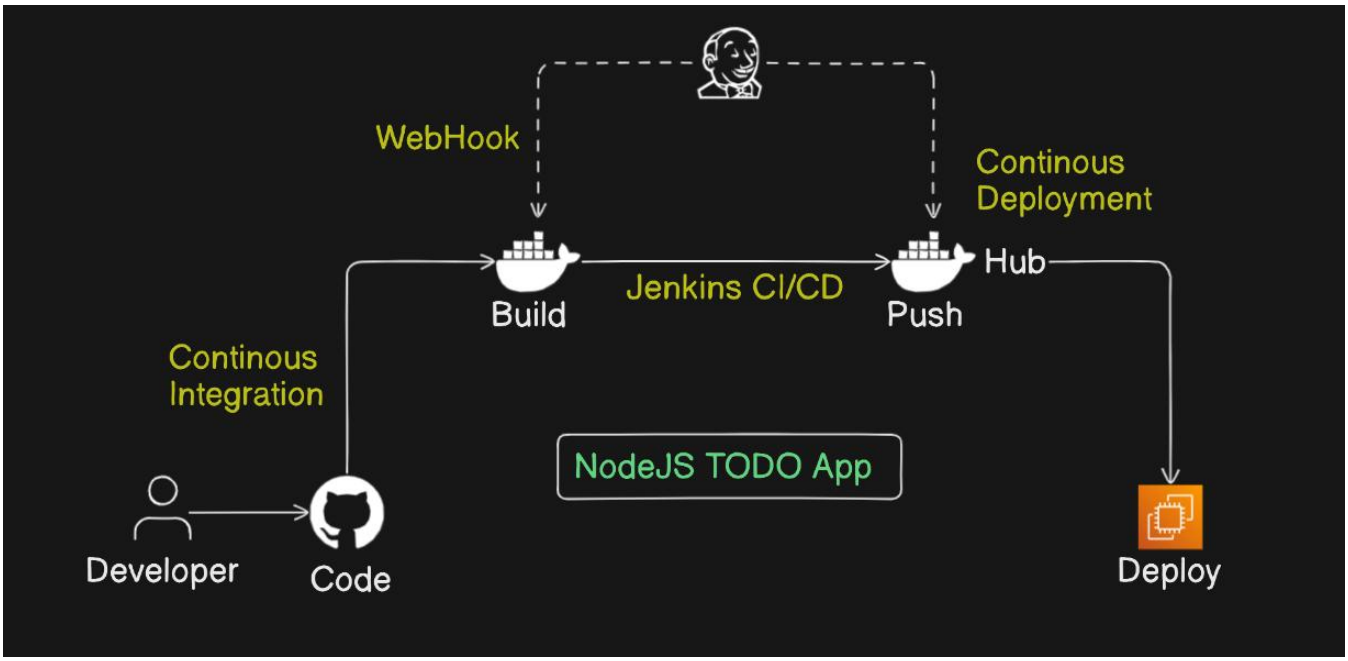
NodeJS application deployment using Jenkins CI/CD

Find detailed blog at ->

1. Architecture of Project-



2. Setup GitHub repository for source code and CI

- GitHub repository used -> node-todo

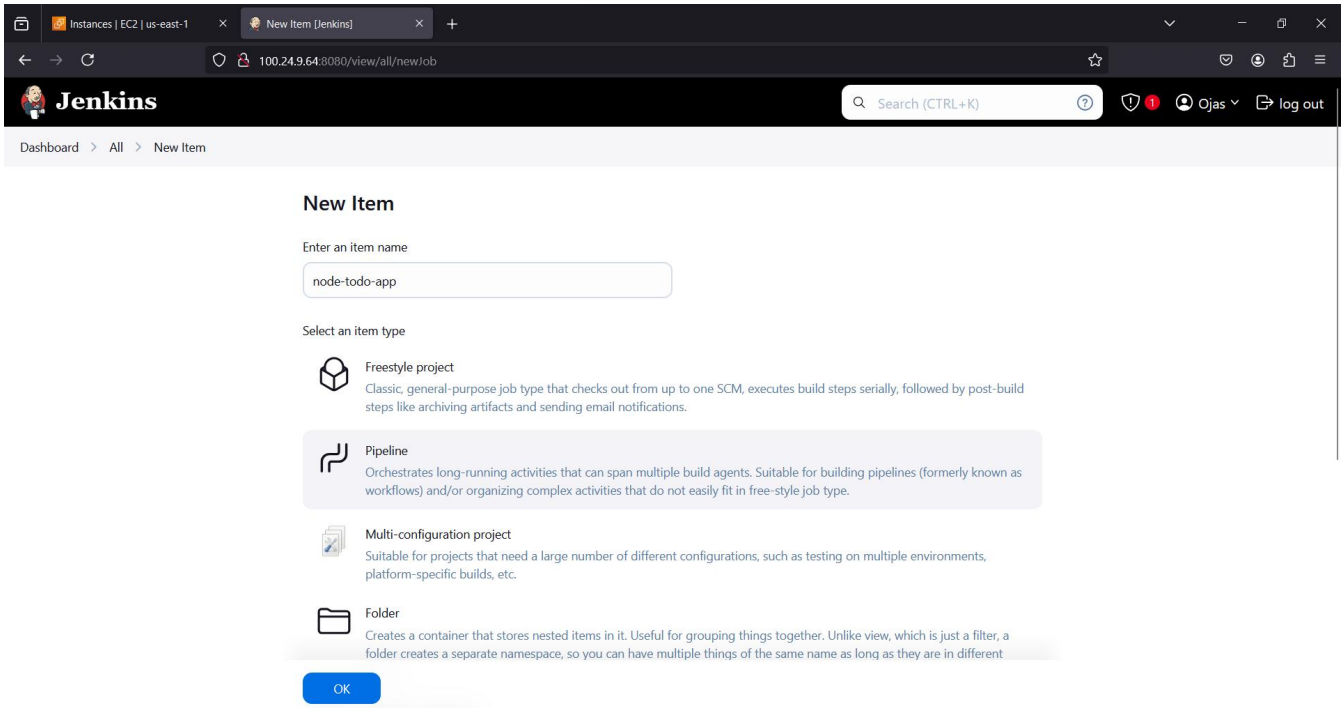
- Note : If you need detailed overview you can also view this Blog.

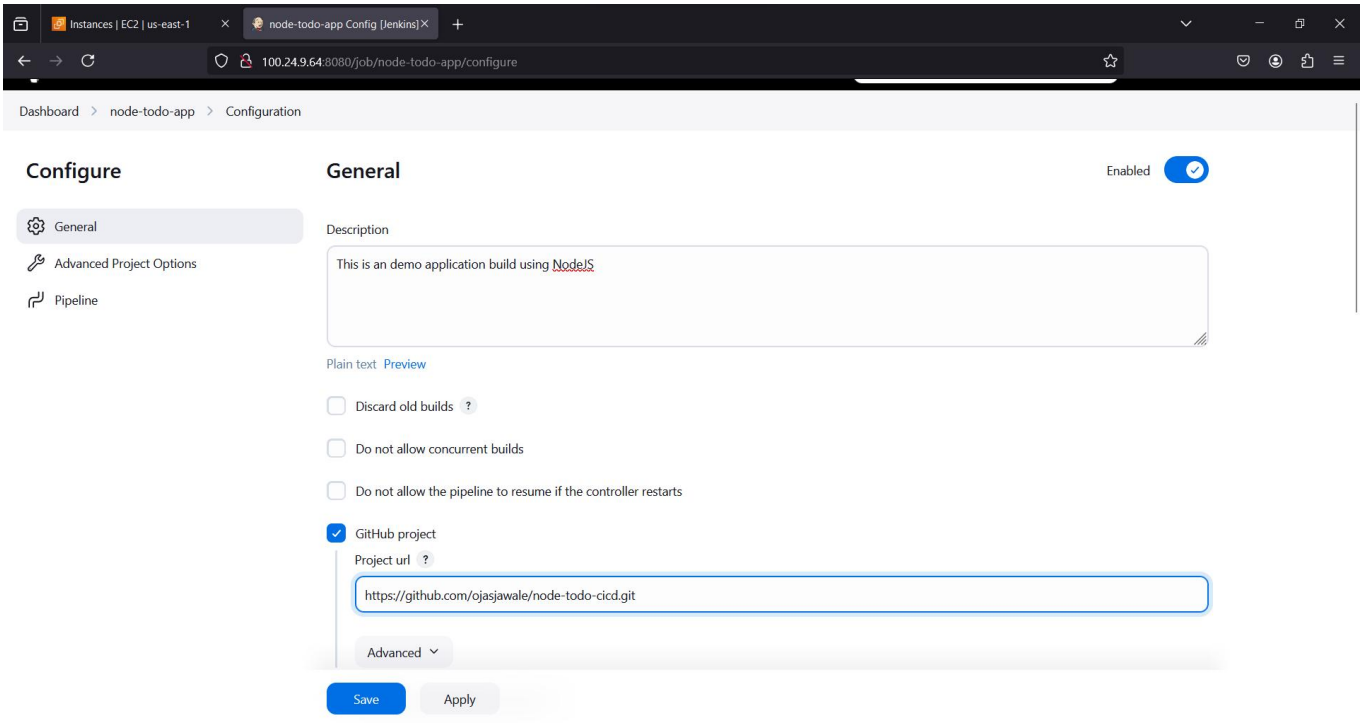
3. Setup Job on Jenkins for application

- Create EC2 instance for Jenkins server

- Update repository packages

- Create Job,

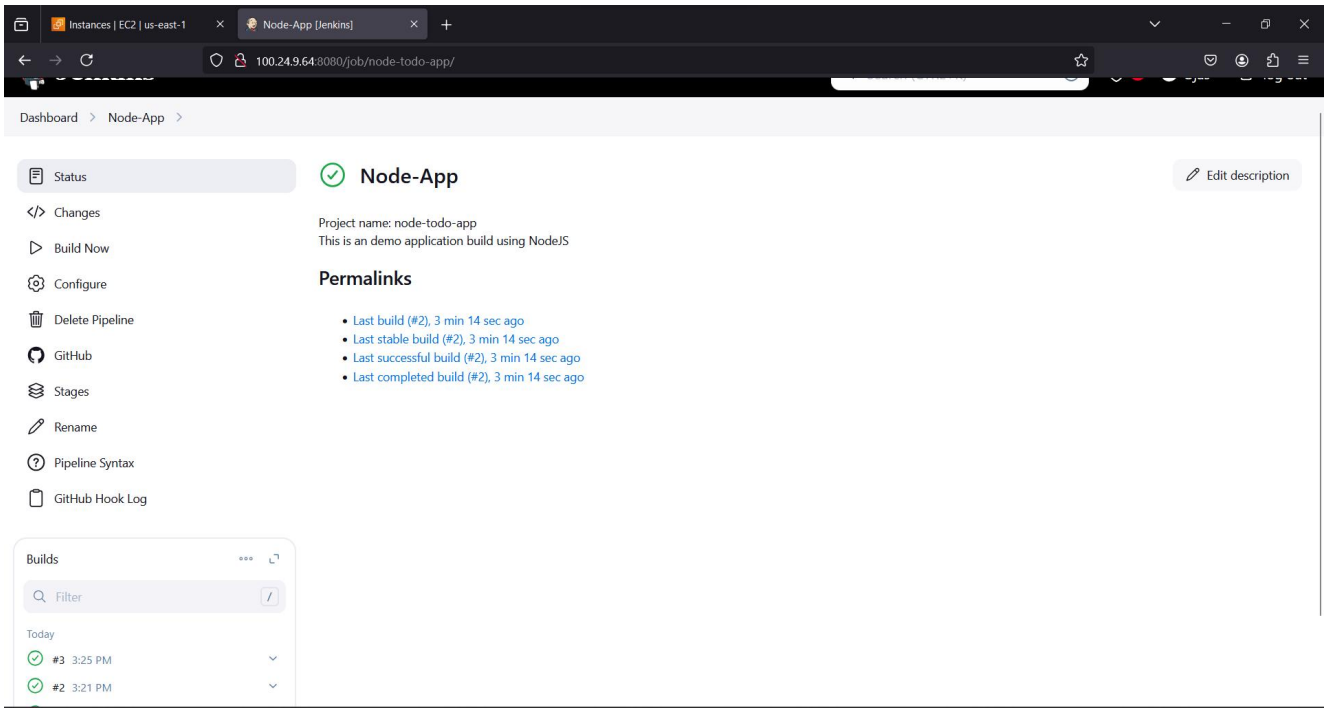




- Add basic script for testing,

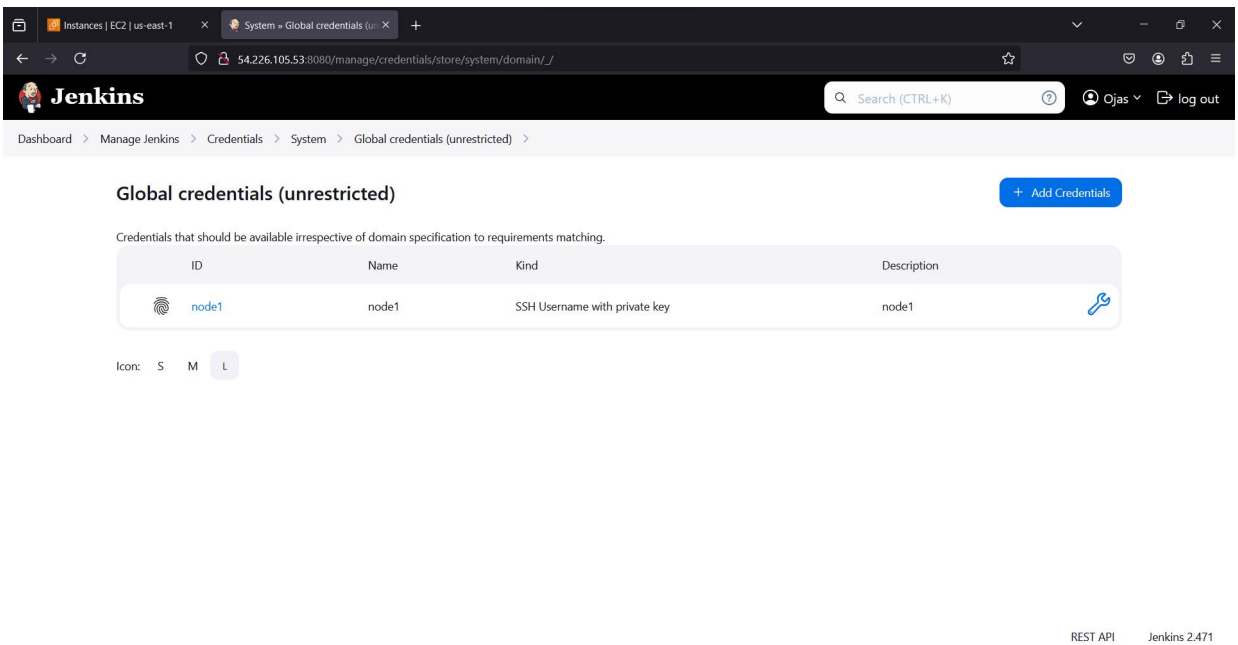
```
pipeline{
    agent any;

    stages{
        stage("Code"){
            steps{
                echo "Source code fetched........."
            }
        }
        stage("Build"){
            steps{
                echo "Image created SUCCESS........."
```

```
            }
        }
        stage("Push"){
            steps{
                echo "Pushing to dockerhub........."
            }
        }
        stage("Deploy"){
            steps{
                echo "Deployement done........."
            }
        }
    }
}
```

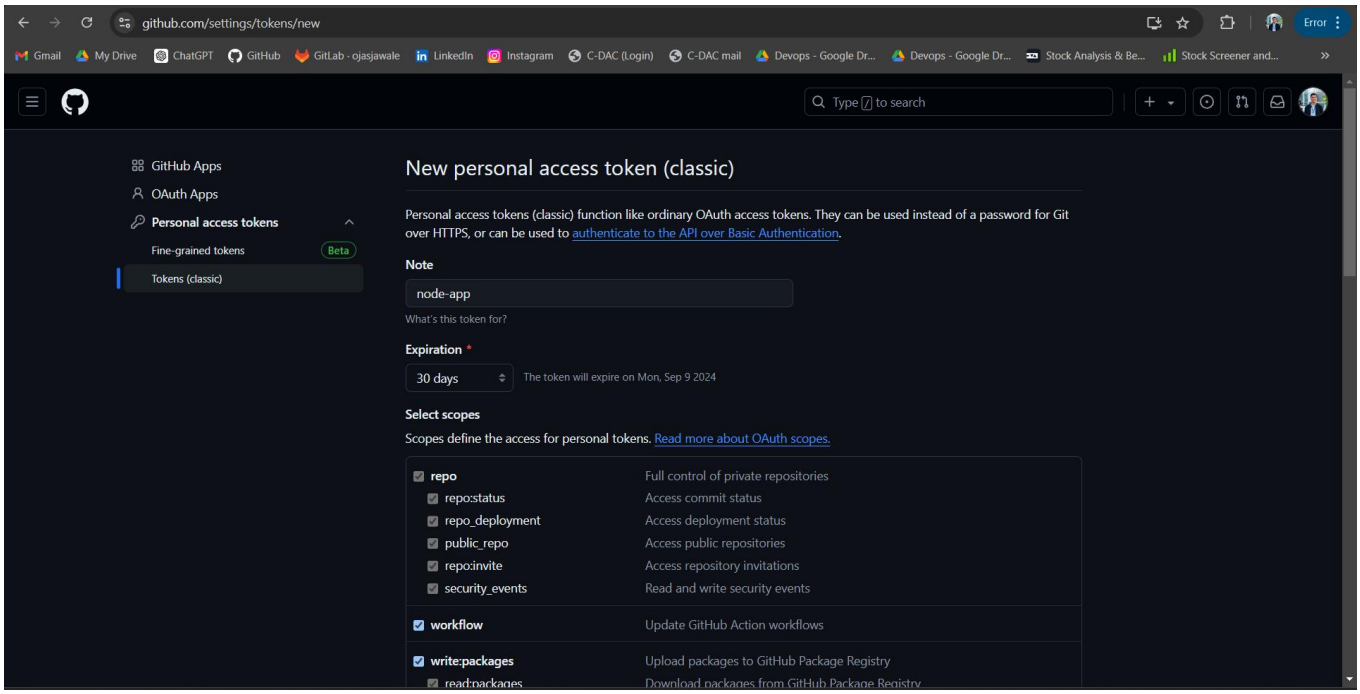


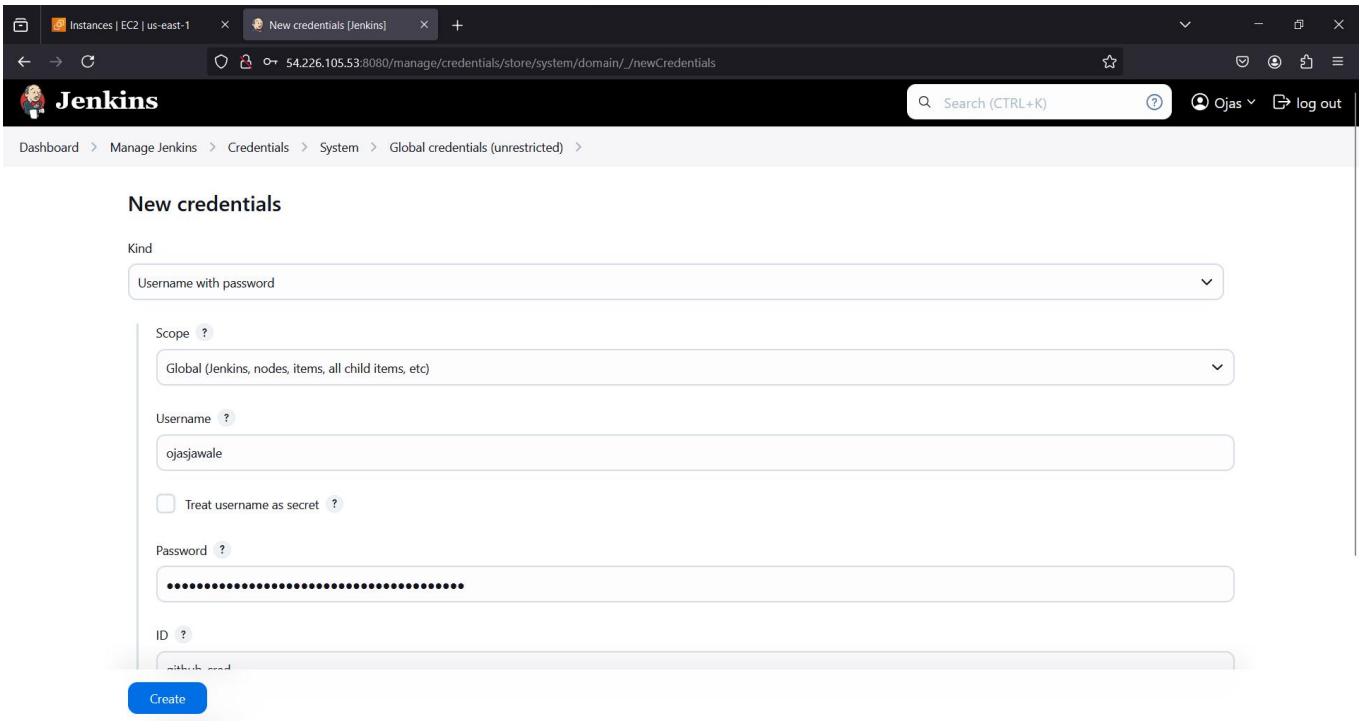
4. Setup security credentials in Jenkins

I. GitHub credentials



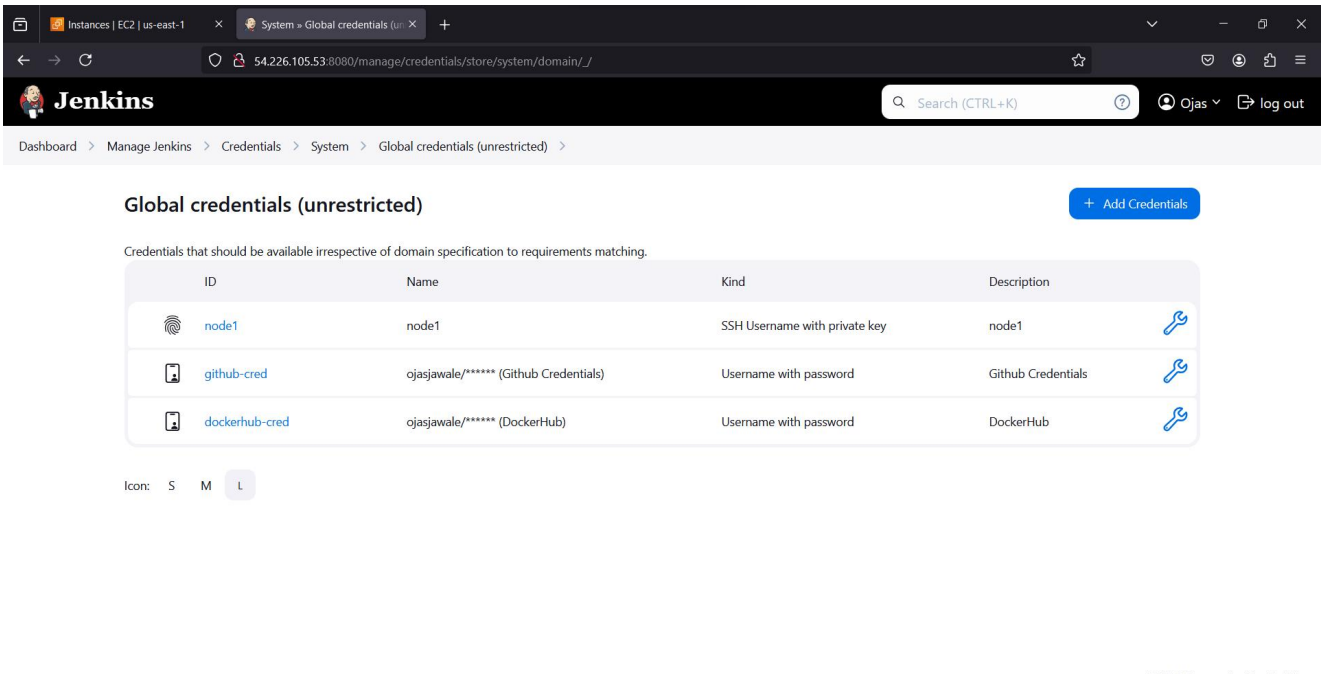
- Go to Github.com and create Personal Access Token.

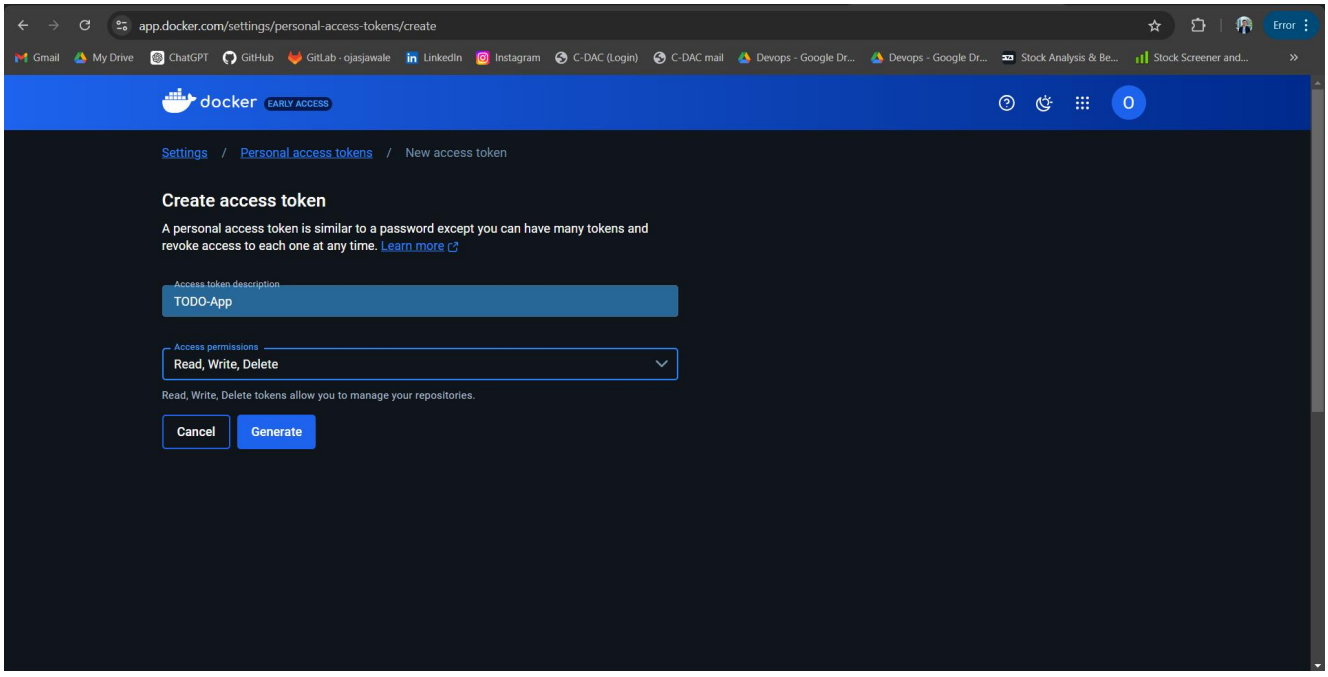




II. DockerHub Credentials

Go to, Dashboard -> Manage Jenkins -> Credentials -> System -> Global credentials -> Add Credentials

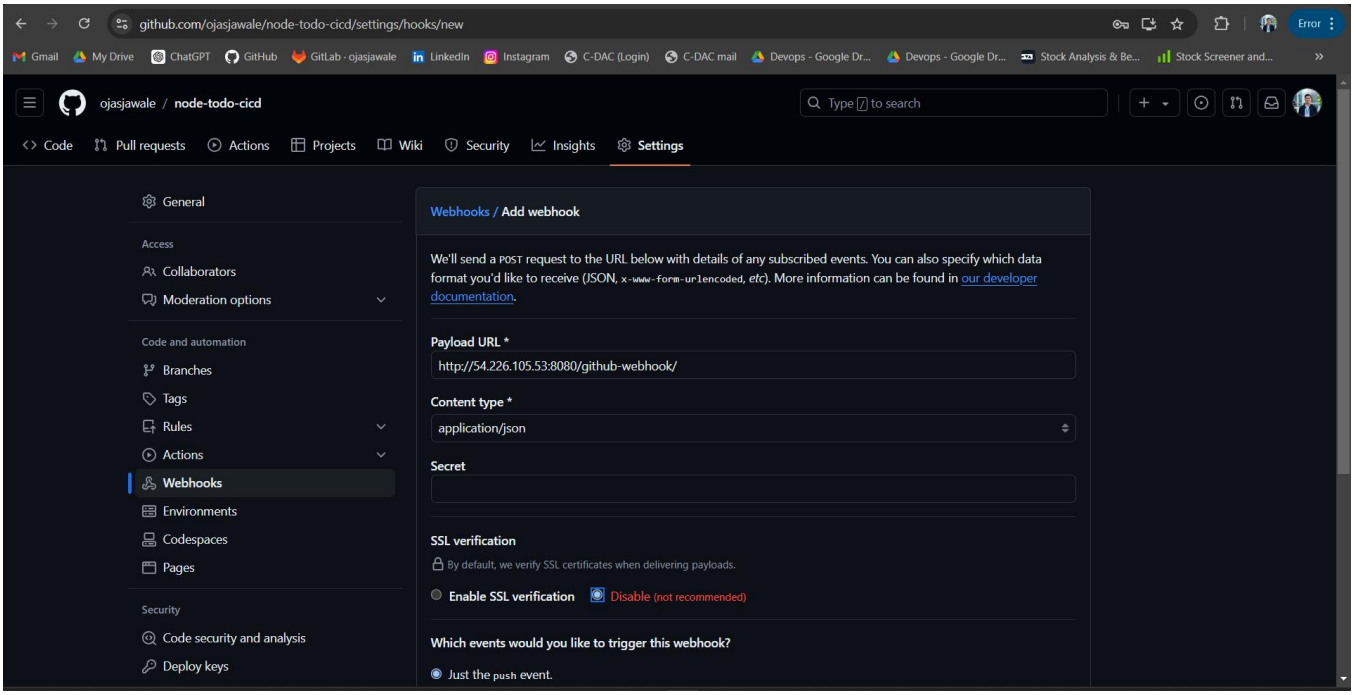


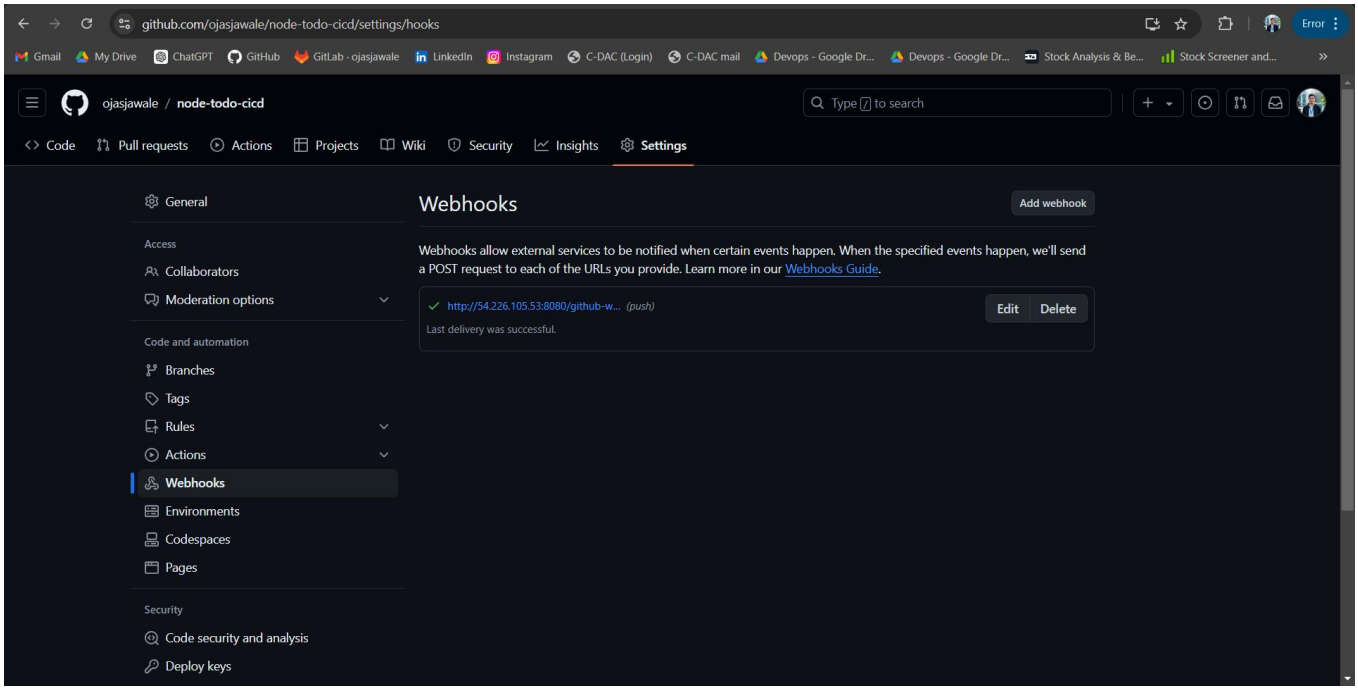


5. Setup GitHub WebHook

Go to repository -> Setting -> Webhook -> Add WebHook

Payload URL -: http://IP_of_Jenkins:8080/github-webhook/



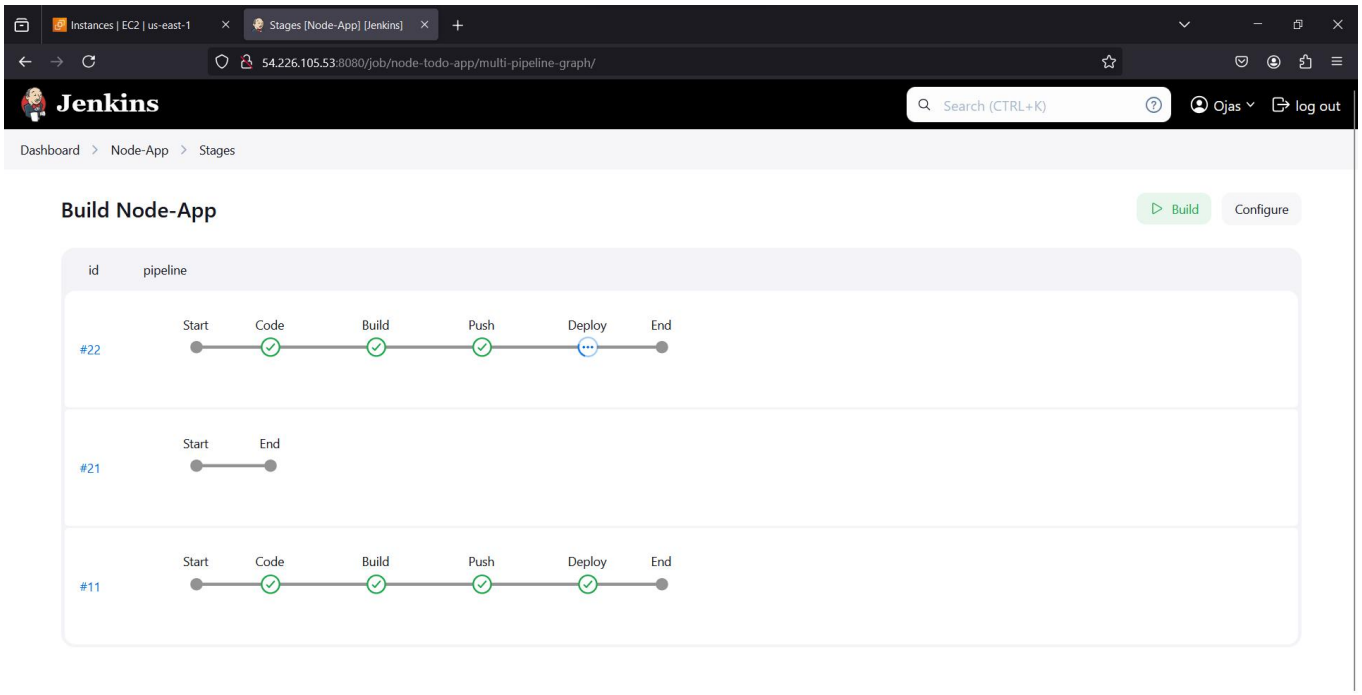


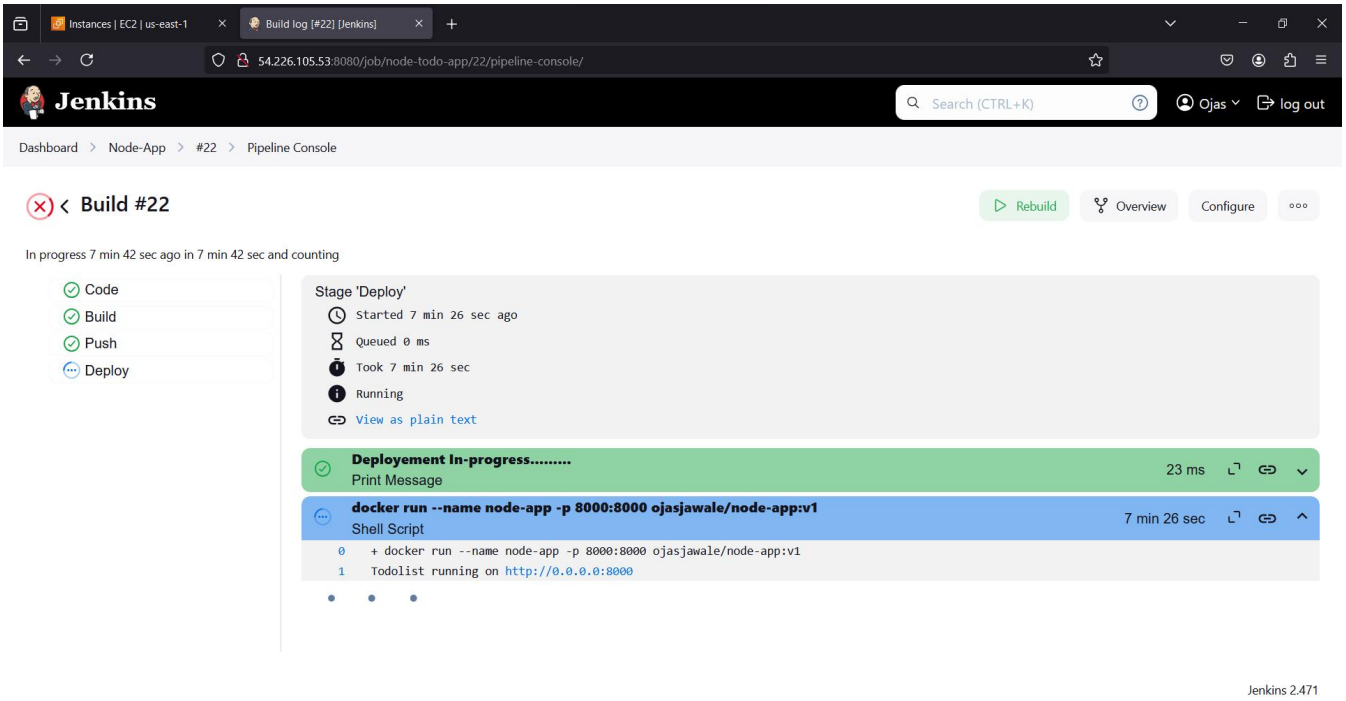
6. Setup CI/CD pipeline

```
pipeline{
    agent any;

    stages{
        stage("Code"){
            steps{
                echo "Pulling source code from GitHub...."
                git url: "https://github.com/ojasjawale/node-todo-cicd.git/", branch: "master"
            }
        }
        stage("Build"){
            steps{
                echo "Image building started........."
```

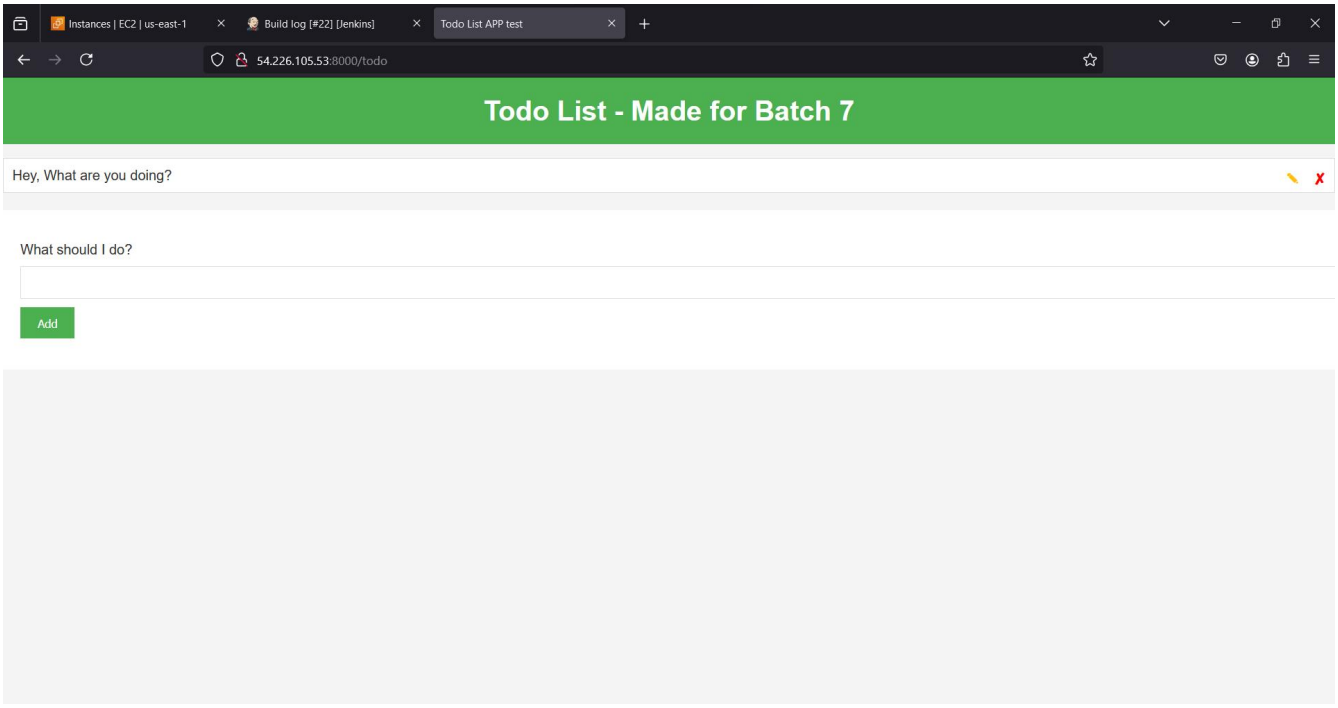
```
                sh 'docker build -t node-app:v1 .'
                echo "Image Build SUCCESS..........."
            }
        }
        stage("Push"){
            steps{
                withCredentials([usernamePassword(credentialsId: 'dockerhub-cred',
passwordVariable: 'DOCKER_PASS', usernameVariable: 'DOCKER_USER')]) {
                sh 'docker login -u ${DOCKER_USER} -p ${DOCKER_PASS}'
                sh 'docker image tag node-app:v1 ${DOCKER_USER}/node-app:v1'
                sh 'docker push ${DOCKER_USER}/node-app:v1'
                echo "Image pushed to DockerHub successfully......."
                }
            }
        }
        stage("Deploy"){
            steps{
                echo "Deployement In-progress........."
                sh 'docker stop node-app && docker rm node-app'
                sh 'docker run --name node-app -p 8000:8000 ojasjawale/node-app:v1'
                echo "Deployement SUCCESS........."
            }
        }
    }
}
```

- Build the Job,





- Access application,



Ojas Jawale