Experiment 2

Creating a Jenkins Pipeline with a Jenkinsfile

Aim

Create a Jenkins pipeline using a Jenkinsfile that builds a simple project, runs tests, and deploys the project to a designated environment

Steps

1. Create a maven project

   a. Create the project

```
[INFO] project created from Old (1.x) Archetype in dir: /home/ayroid/Documents/Work/College/SEM5/Subjects/cicd/lab/HiteshSir/exp3/CICD-EXP3
[INFO] ------------------------------------------------------------------------
[INFO] BUILD SUCCESS
[INFO] ------------------------------------------------------------------------
[INFO] Total time:  4.505 s
[INFO] Finished at: 2023-09-19T08:53:50+05:30
[INFO] ------------------------------------------------------------------------
```

   b. Create a package DevOps inside src/main/java/ and add App.java file

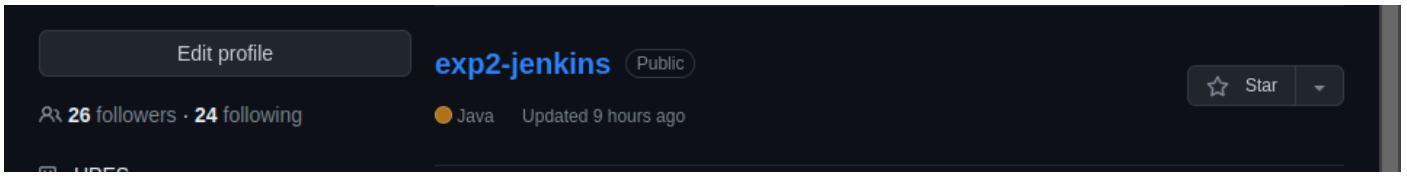
```java
package DevOps;

public class App {
    public void greetings() {
        System.out.println("Hello World!");
    }

    public static void main(String[] args) {
        App app = new App();
        app.greetings();
    }
}
```

2. Create a Jenkinsfile and write the steps to be executed in it

```
 GNU nano 7.2                                  Jenkinsfile
pipeline {
    agent any
    tools {
        maven 'MAVEN_HOME'
    }
    stages {
            stage('Stage 1 : Clean Stage'){
                steps{
                    sh 'mvn clean'
                }
            }
            stage('Stage 2 : test Stage'){
                steps{
                    sh 'mvn test'
                }
            }
            stage('Stage 3 : Install stage'){
                steps{
                    sh 'mvn install'
                }
```

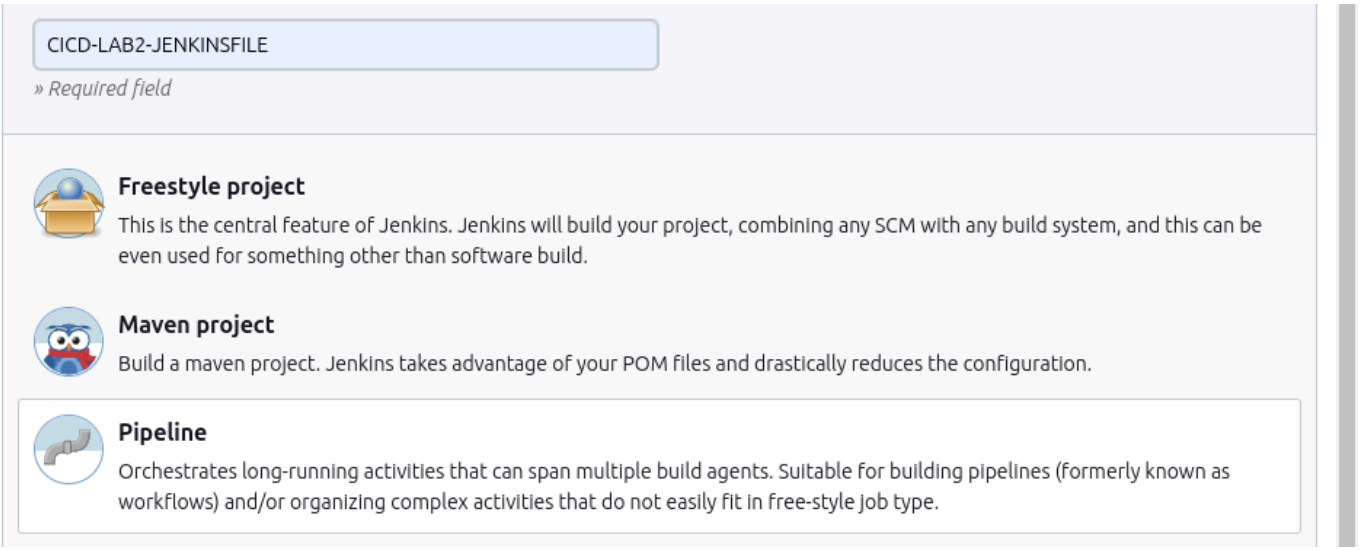
```
        }
        stage('Stage Final : Build Sucess'){
            steps{
                echo 'Build Sucessfull'
            }
        }
    }
}
```

2. Create a GitHub Repository



3. Create a Jenkins Pipeline

a. Create a pipeline



b. Add the project url

c. Configure the build trigger to poll scm and set it to perform build every minute

d. Specify the path to Jenkinsfile in the project

e. Save the pipeline

4. Commit and push the changes of the project on GitHub

```
→  DevOps git:(master) ✗ git add . && git commit -m "Project updated" && git push origin master
[master b8e0680] Project updated
 1 file changed, 1 insertion(+), 9 deletions(-)
Username for 'https://github.com': Ayroid
Password for 'https://Ayroid@github.com':
Enumerating objects: 13, done.
```

5. An automatic build is triggered