Project 8: Exercise Project

Solution:

Step 1: Open GIT bash

Step 2: Create a directory with the following steps

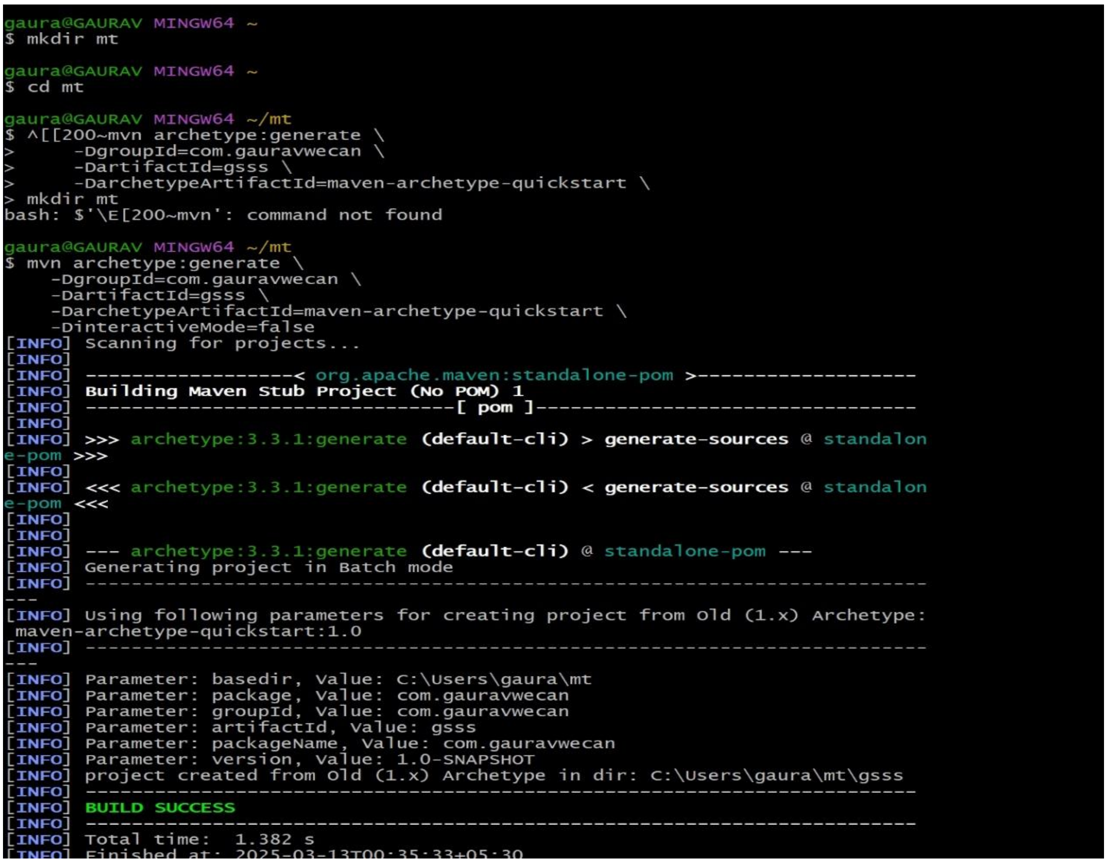
mkdir maventest1

cd maventest1

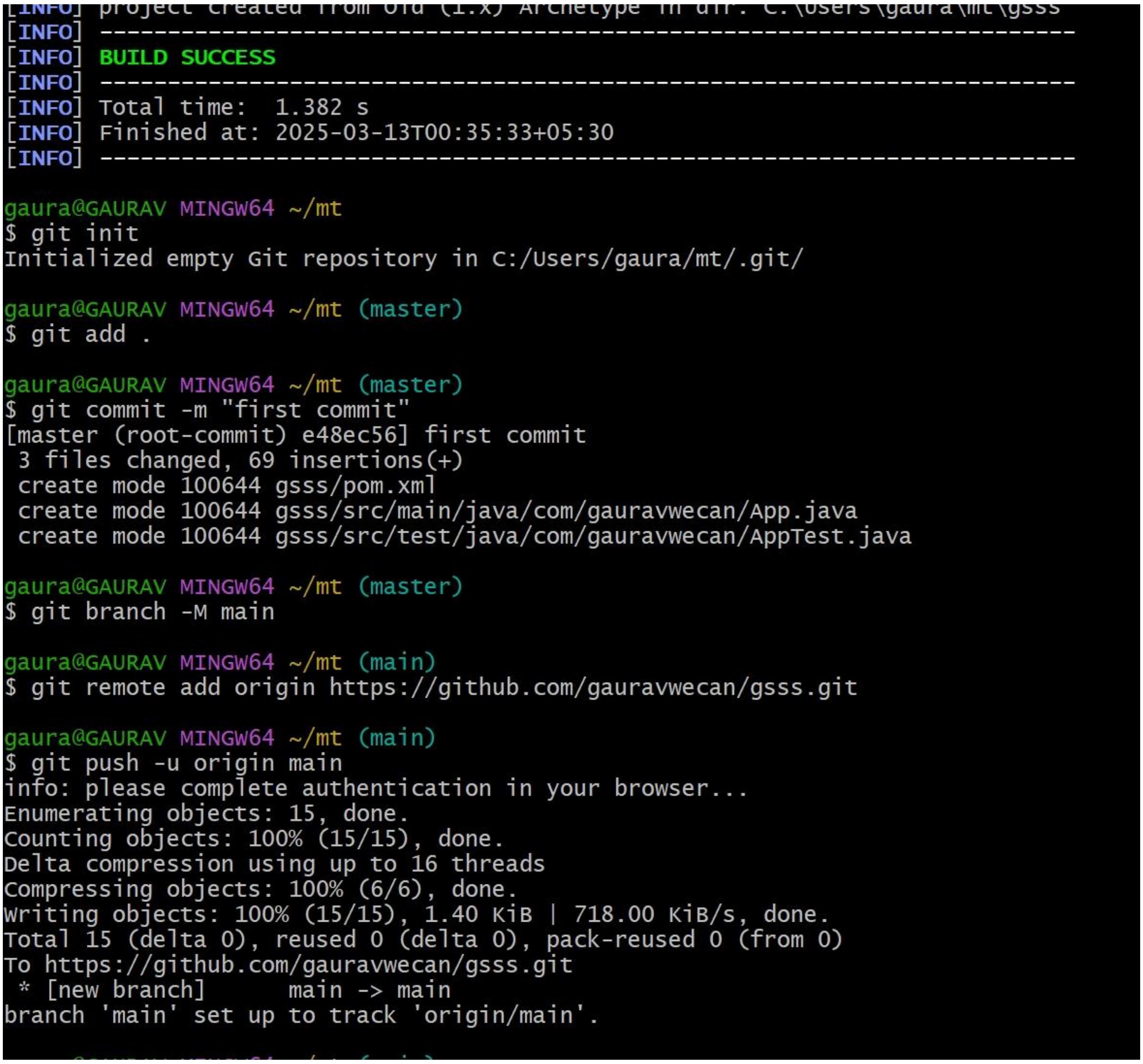
Step 3: Create project

```
mvn archetype:generate \
   -DgroupId=com.yourname \
   -DartifactId=repo_name \
   -DarchetypeArtifactId=maven-archetype-quickstart \
   -DinteractiveMode=false
```

Output will be like this:

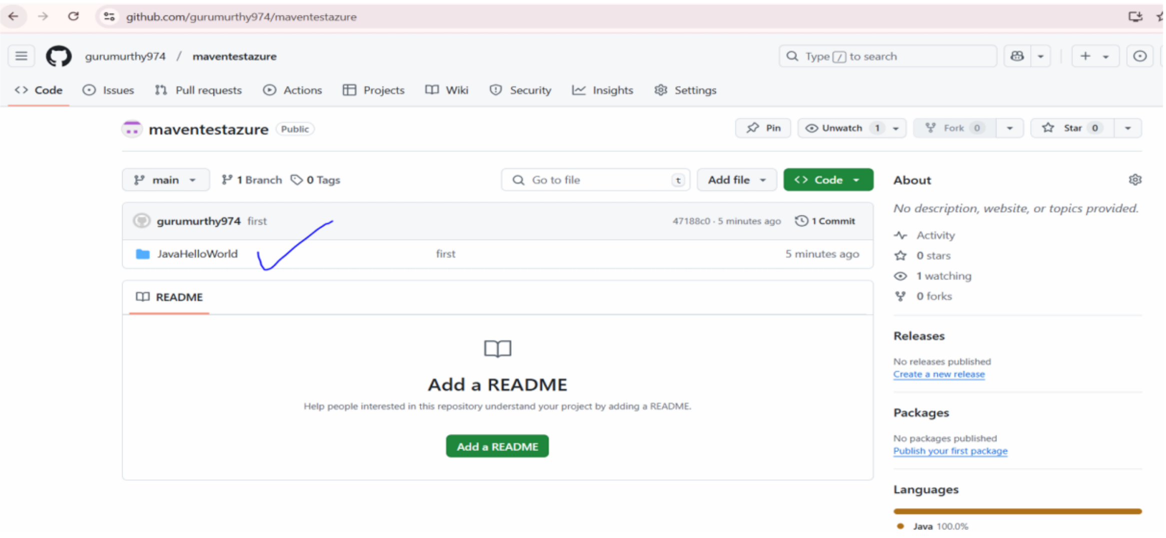


```
gaura@GAURAV MINGW64 ~
$ mkdir mt

gaura@GAURAV MINGW64 ~
$ cd mt

gaura@GAURAV MINGW64 ~/mt
$ ^[[200~mvn archetype:generate \
>      -DgroupId=com.gauravwecan \
>      -DartifactId=gsss \
>      -DarchetypeArtifactId=maven-archetype-quickstart \
> mkdir mt
bash: $'\E[200~mvn': command not found

gaura@GAURAV MINGW64 ~/mt
$ mvn archetype:generate \
    -DgroupId=com.gauravwecan \
    -DartifactId=gsss \
    -DarchetypeArtifactId=maven-archetype-quickstart \
    -DinteractiveMode=false
[INFO] Scanning for projects...
[INFO]
[INFO] ------------------< org.apache.maven:standalone-pom >-------------------
[INFO] Building Maven Stub Project (No POM) 1
[INFO] --------------------------------[ pom ]---------------------------------
[INFO]
[INFO] >>> archetype:3.3.1:generate (default-cli) > generate-sources @ standalon
e-pom >>>
[INFO]
[INFO] <<< archetype:3.3.1:generate (default-cli) < generate-sources @ standalon
e-pom <<<
[INFO]
[INFO]
[INFO] --- archetype:3.3.1:generate (default-cli) @ standalone-pom ---
[INFO] Generating project in Batch mode
[INFO] ----------------------------------------------------------------------------
---
[INFO] Using following parameters for creating project from Old (1.x) Archetype:
 maven-archetype-quickstart:1.0
[INFO] ----------------------------------------------------------------------------
---
[INFO] Parameter: basedir, Value: C:\Users\gaura\mt
[INFO] Parameter: package, Value: com.gauravwecan
[INFO] Parameter: groupId, Value: com.gauravwecan
[INFO] Parameter: artifactId, Value: gsss
[INFO] Parameter: packageName, Value: com.gauravwecan
[INFO] Parameter: version, Value: 1.0-SNAPSHOT
[INFO] project created from Old (1.x) Archetype in dir: C:\Users\gaura\mt\gsss
[INFO] ------------------------------------------------------------------------
[INFO] BUILD SUCCESS
[INFO] ------------------------------------------------------------------------
[INFO] Total time:  1.382 s
[INFO] Finished at: 2025-03-13T00:35:33+05:30
```



```
[INFO] project created from Old (1.x) Archetype in dir: C:\Users\gaura\mt\gsss
[INFO] ------------------------------------------------------------------------
[INFO] BUILD SUCCESS
[INFO] ------------------------------------------------------------------------
[INFO] Total time:  1.382 s
[INFO] Finished at: 2025-03-13T00:35:33+05:30
[INFO] ------------------------------------------------------------------------

gaura@GAURAV MINGW64 ~/mt
$ git init
Initialized empty Git repository in C:/Users/gaura/mt/.git/

gaura@GAURAV MINGW64 ~/mt (master)
$ git add .

gaura@GAURAV MINGW64 ~/mt (master)
$ git commit -m "first commit"
[master (root-commit) e48ec56] first commit
 3 files changed, 69 insertions(+)
 create mode 100644 gsss/pom.xml
 create mode 100644 gsss/src/main/java/com/gauravwecan/App.java
 create mode 100644 gsss/src/test/java/com/gauravwecan/AppTest.java

gaura@GAURAV MINGW64 ~/mt (master)
$ git branch -M main

gaura@GAURAV MINGW64 ~/mt (main)
$ git remote add origin https://github.com/gauravwecan/gsss.git

gaura@GAURAV MINGW64 ~/mt (main)
$ git push -u origin main
info: please complete authentication in your browser...
Enumerating objects: 15, done.
Counting objects: 100% (15/15), done.
Delta compression using up to 16 threads
Compressing objects: 100% (6/6), done.
Writing objects: 100% (15/15), 1.40 KiB | 718.00 KiB/s, done.
Total 15 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/gauravwecan/gsss.git
 * [new branch]      main -> main
branch 'main' set up to track 'origin/main'.

gaura@GAURAV MINGW64 ~/mt (main)
```

Step 4: Check your Github account, your file will be uploaded.



github.com/gurumurthy974/maventestazure

gurumurthy974 / maventestazure

maventestazure Public

main · 1 Branch · 0 Tags

gurumurthy974 first · 47188c0 · 5 minutes ago · 1 Commit

JavaHelloWorld · first · 5 minutes ago

README

Add a README

Help people interested in this repository understand your project by adding a README.

About

No description, website, or topics provided.

Activity
0 stars
1 watching
0 forks

Releases

No releases published
Create a new release

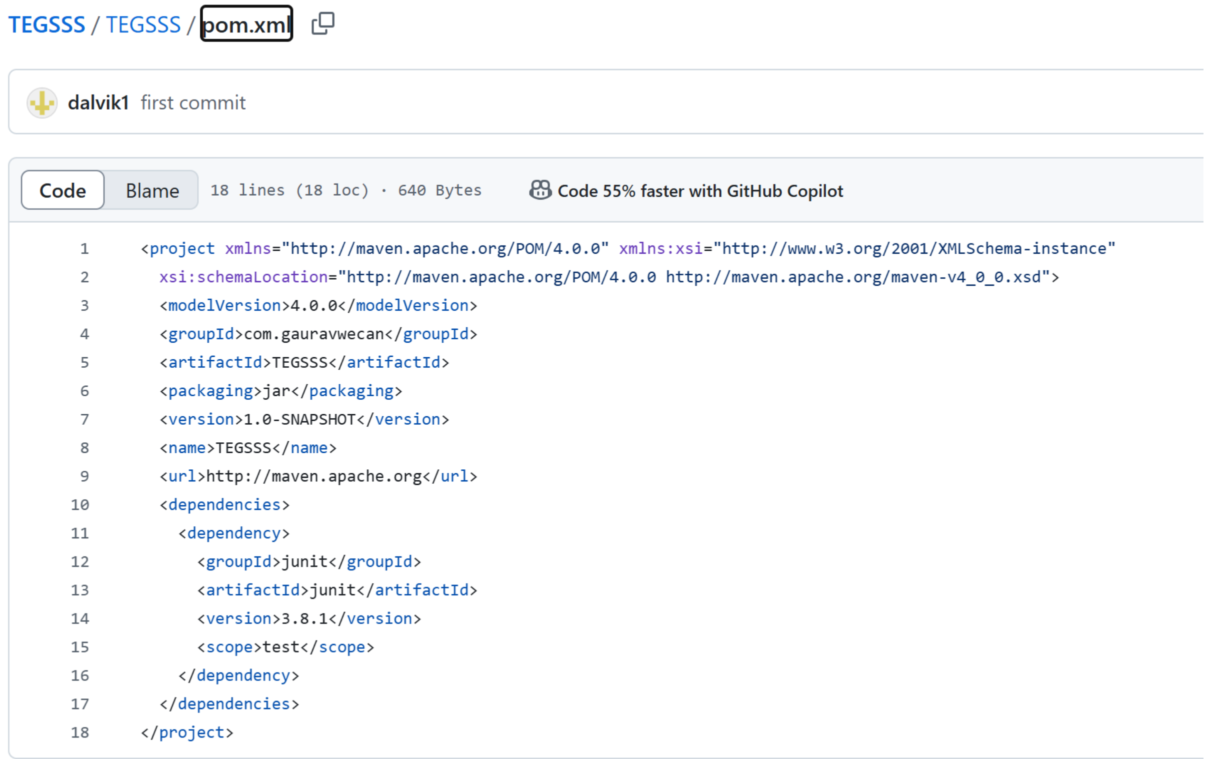
Packages

No packages published
Publish your first package

Languages

Java 100.0%

Step 5: Check for pom.xml file


TEGSSS / TEGSSS / pom.xml
dalvik1 first commit
Code
Blame
18 lines (18 loc) · 640 Bytes
Code 55% faster with GitHub Copilot

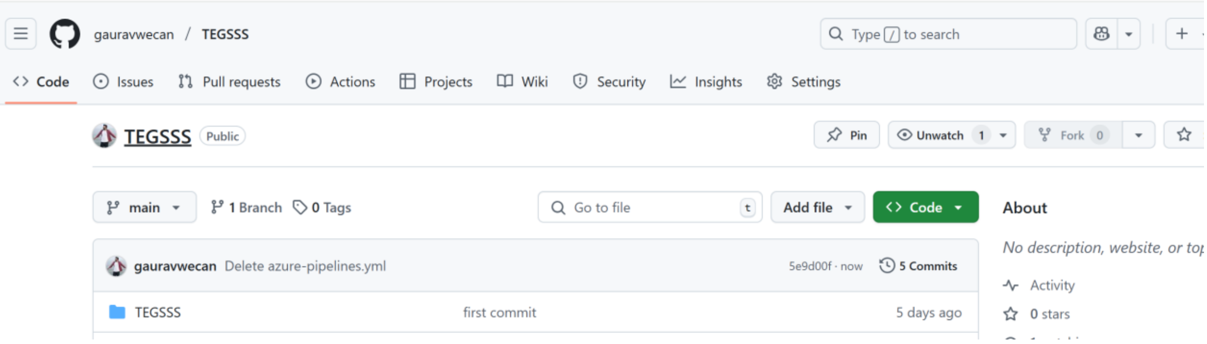
```xml
<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apache.org/maven-v4_0_0.xsd">
  <modelVersion>4.0.0</modelVersion>
  <groupId>com.gauravwecan</groupId>
  <artifactId>TEGSSS</artifactId>
  <packaging>jar</packaging>
  <version>1.0-SNAPSHOT</version>
  <name>TEGSSS</name>
  <url>http://maven.apache.org</url>
  <dependencies>
    <dependency>
      <groupId>junit</groupId>
      <artifactId>junit</artifactId>
      <version>3.8.1</version>
      <scope>test</scope>
    </dependency>
  </dependencies>
</project>
```

Project 12: Exercise Project

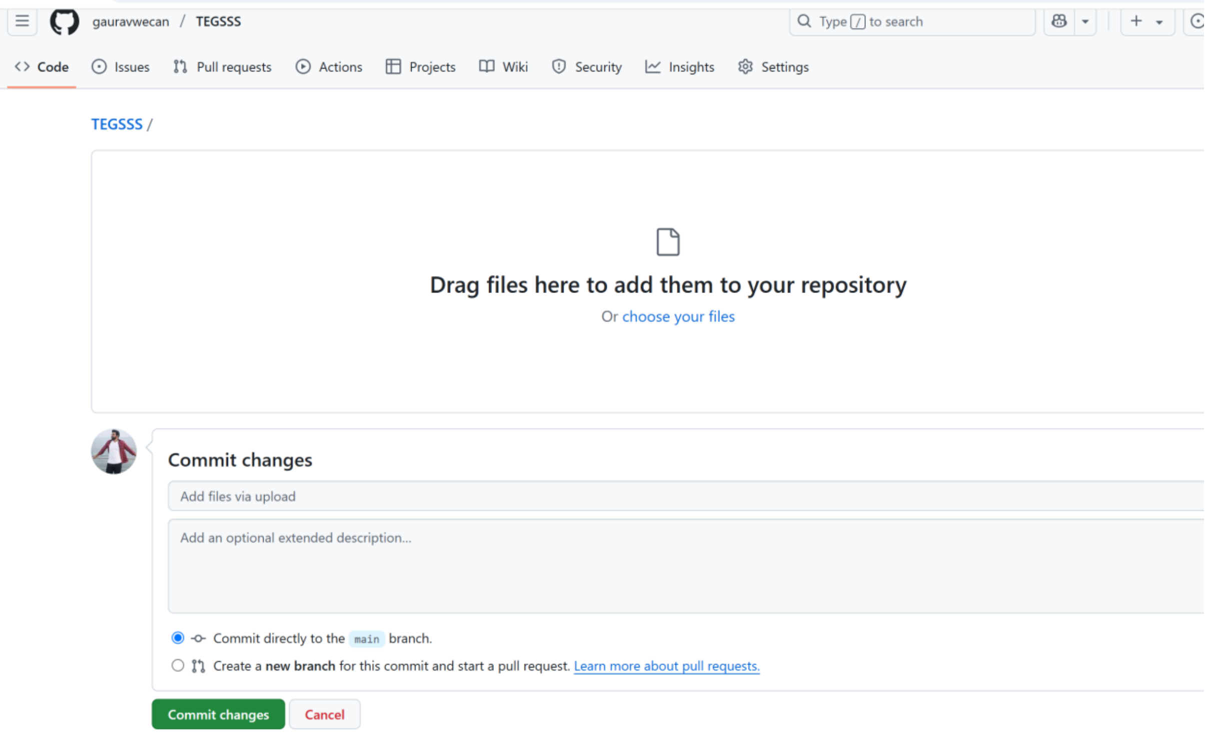
Solution:

Step 1: Follow all 5 steps of project 8.

Step 2: Click on Add file and upload 3 files from Laptop / PC



Step 3: Add the file and click on Commit changes



TEGSSS /

Drag files here to add them to your repository

Or choose your files

Commit changes

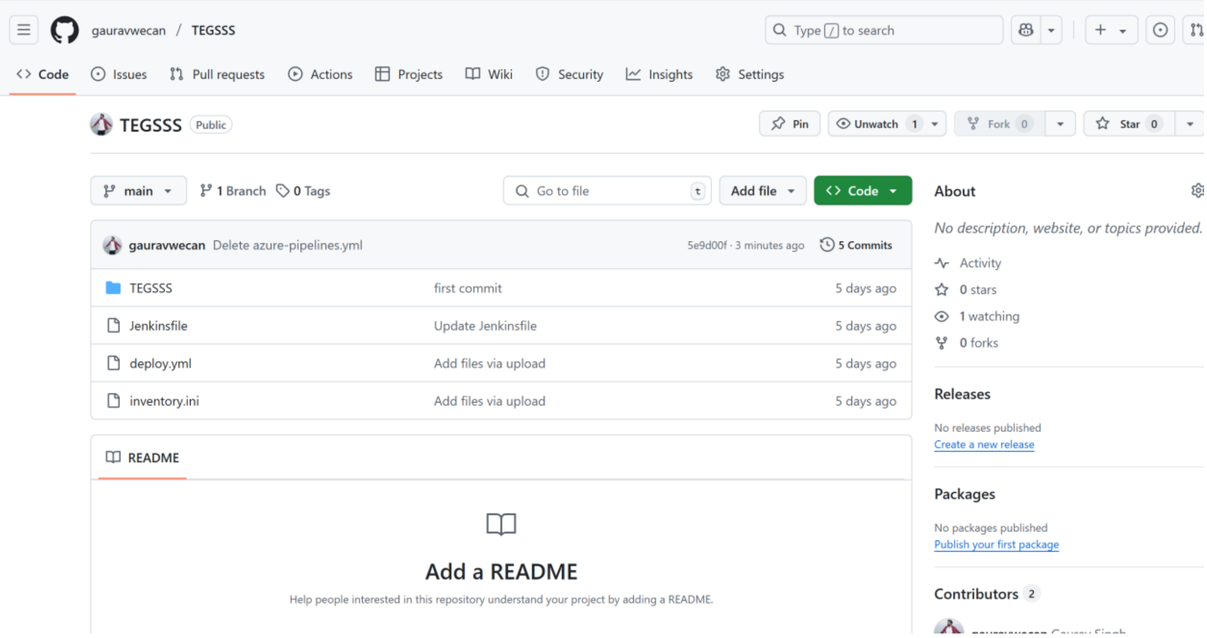
Add files via upload

Add an optional extended description...

● Commit directly to the `main` branch.

○ Create a **new branch** for this commit and start a pull request. Learn more about pull requests.

Step 4: After adding the file, your repository will look like this:



TEGSSS Public

gauravwecan Delete azure-pipelines.yml 5e9d00f · 3 minutes ago 5 Commits

TEGSSS	first commit	5 days ago
Jenkinsfile	Update Jenkinsfile	5 days ago
deploy.yml	Add files via upload	5 days ago
inventory.ini	Add files via upload	5 days ago

Add a README

Help people interested in this repository understand your project by adding a README.

About

No description, website, or topics provided.

Activity

0 stars

1 watching

0 forks

Releases

No releases published

Create a new release

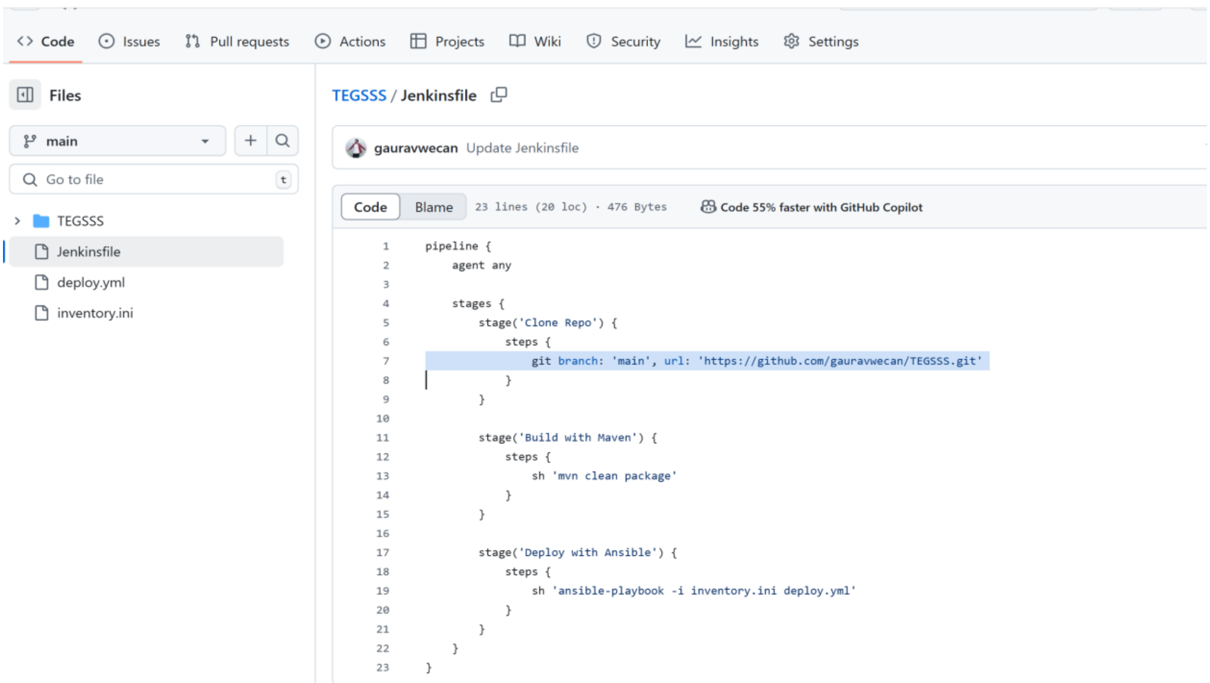
Packages

No packages published

Publish your first package

Contributors 2

Step 5: Go to Jenkins file, Check for “git path”



```
pipeline {
    agent any

    stages {
        stage('Clone Repo') {
            steps {
                git branch: 'main', url: 'https://github.com/gauravwecan/TEGSSS.git'
            }
        }

        stage('Build with Maven') {
            steps {
                sh 'mvn clean package'
            }
        }

        stage('Deploy with Ansible') {
            steps {
                sh 'ansible-playbook -i inventory.ini deploy.yml'
            }
        }
    }
}
```

Check the highlighted path, and change the link by your own github repository.

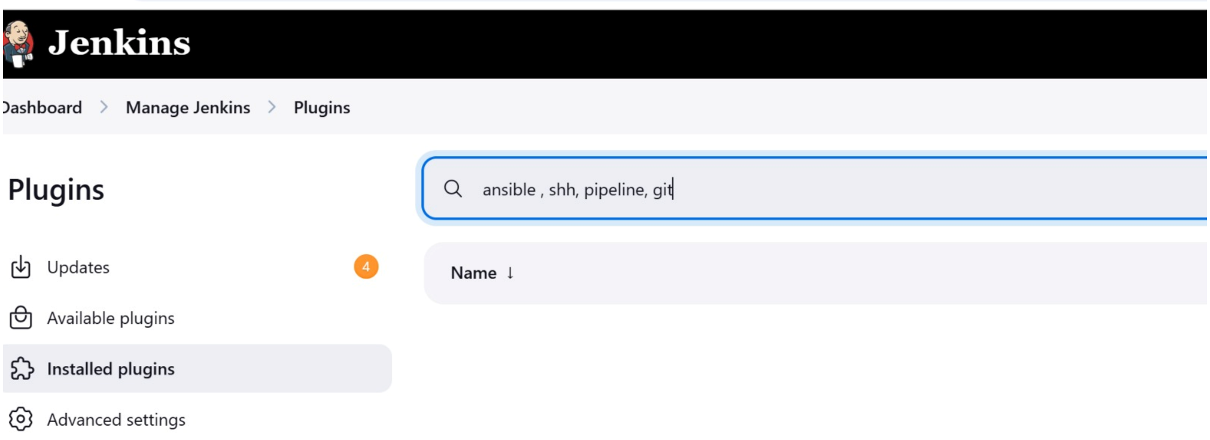
Step 6: Open Jenkins:

Go to Manage Jenkins – Click on plugins, and download Ansible, Maven, ssh, Git plugins.

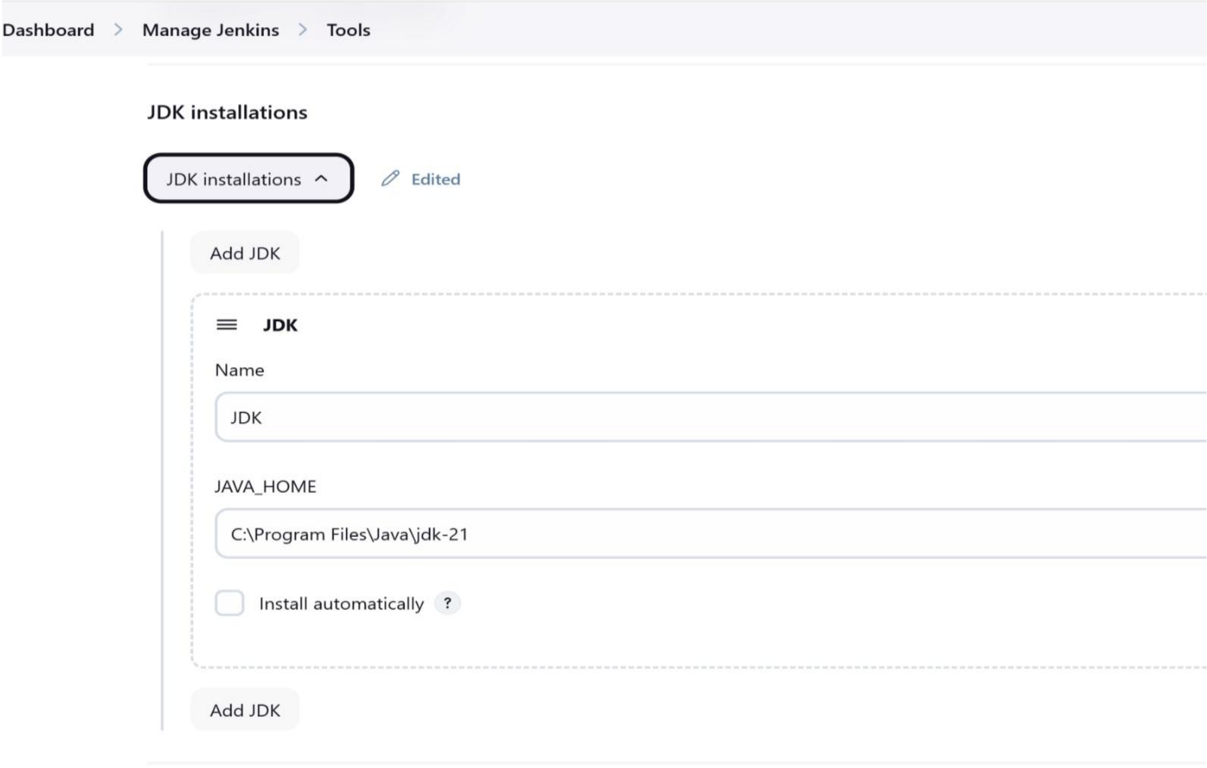
Step 7:

Open and sign-in into your Jenkins Account.

Go to Manage Jenkins – Click on Tools and configure the plugins one by one as shown in the images below:



ansible , shh, pipeline, git



Dashboard > Manage Jenkins > Tools

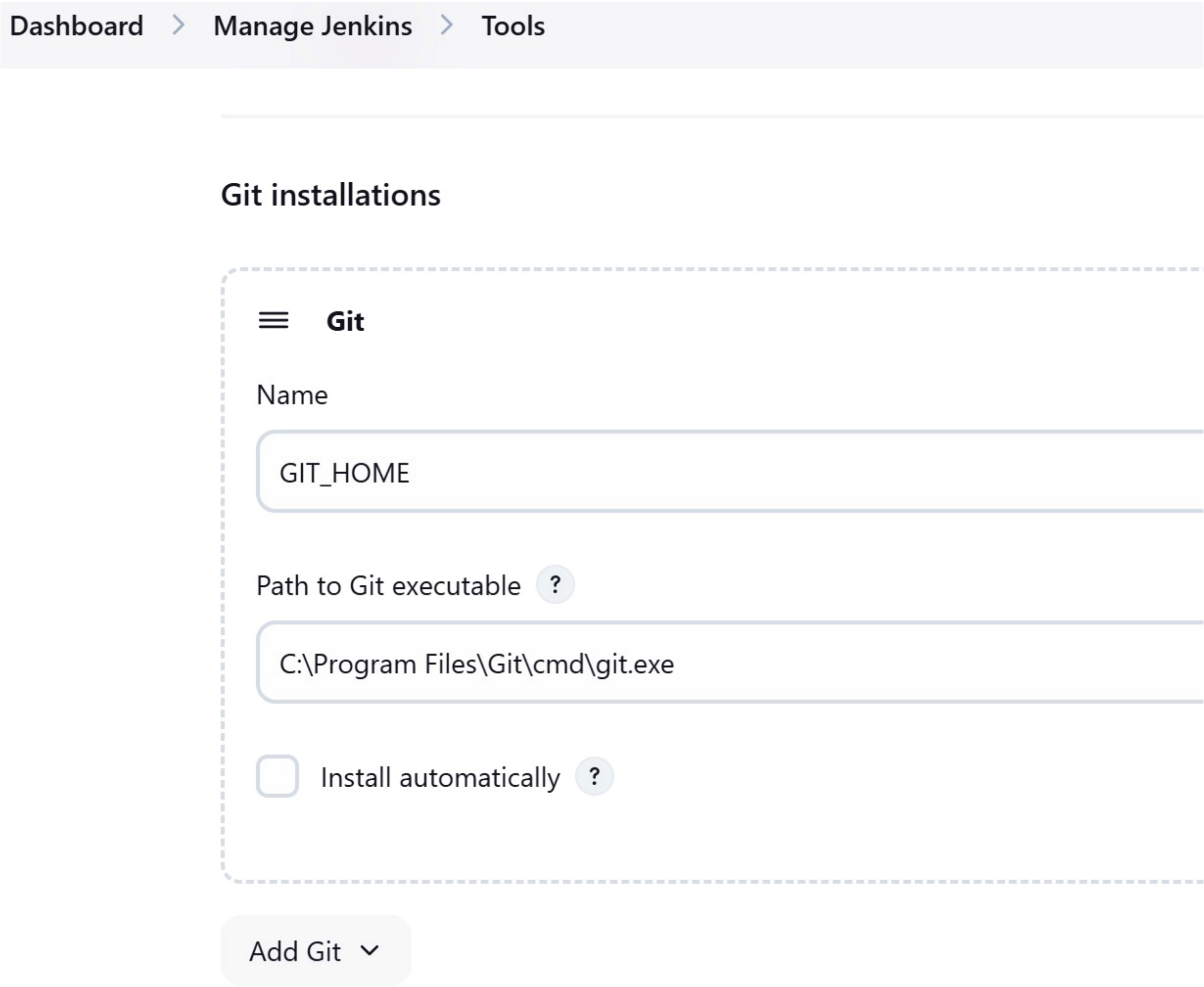
JDK installations

JDK

Name: JDK

JAVA_HOME: C:\Program Files\Java\jdk-21

□ Install automatically ?



Dashboard > Manage Jenkins > Tools

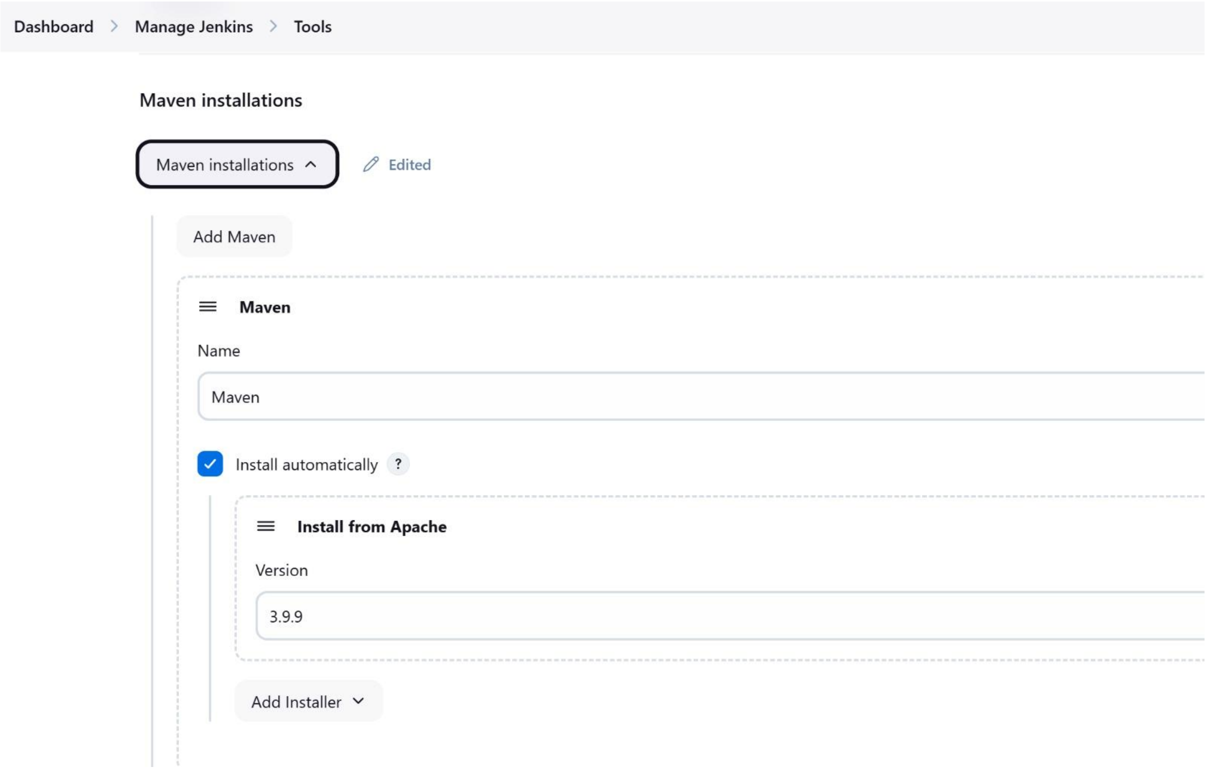
Git installations

Git

Name: GIT_HOME

Path to Git executable ?: C:\Program Files\Git\cmd\git.exe

□ Install automatically ?



Dashboard > Manage Jenkins > Tools

Maven installations

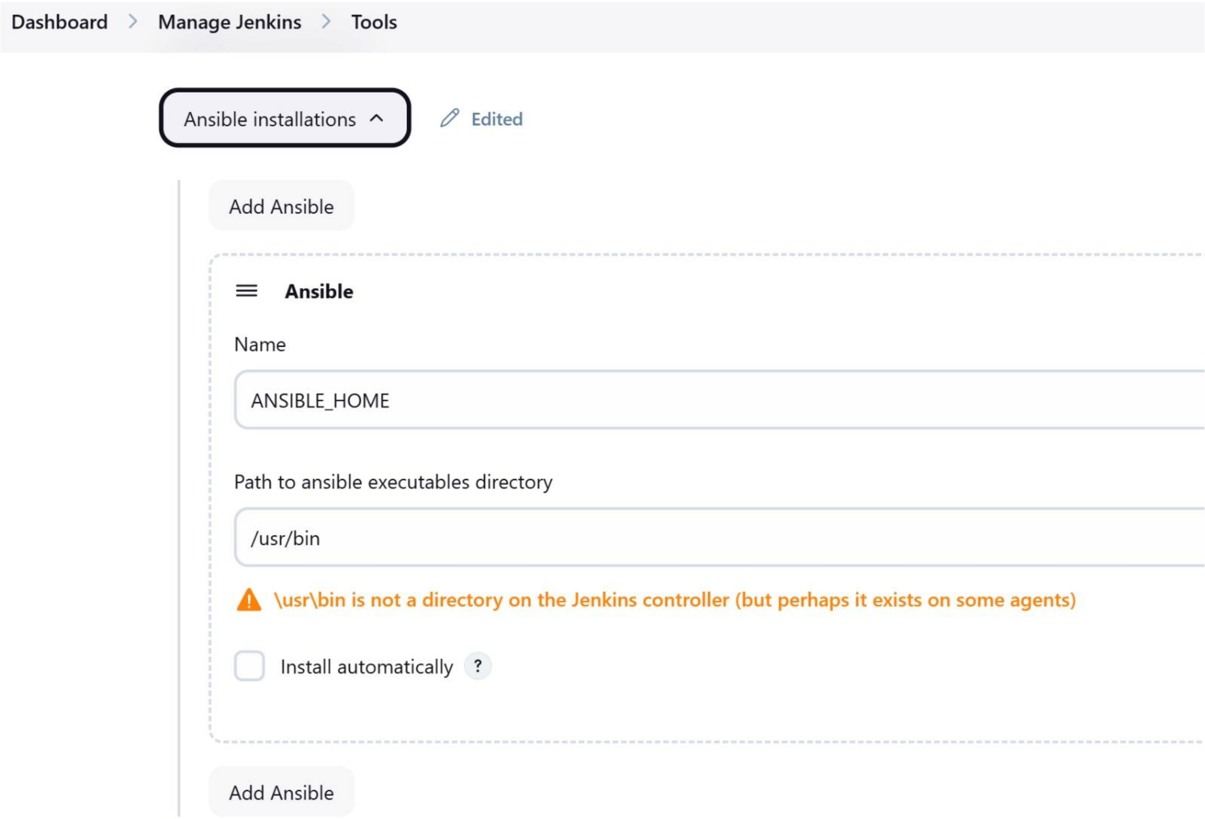
Maven

Name: Maven

☑ Install automatically ?

Install from Apache

Version: 3.9.9



Dashboard > Manage Jenkins > Tools

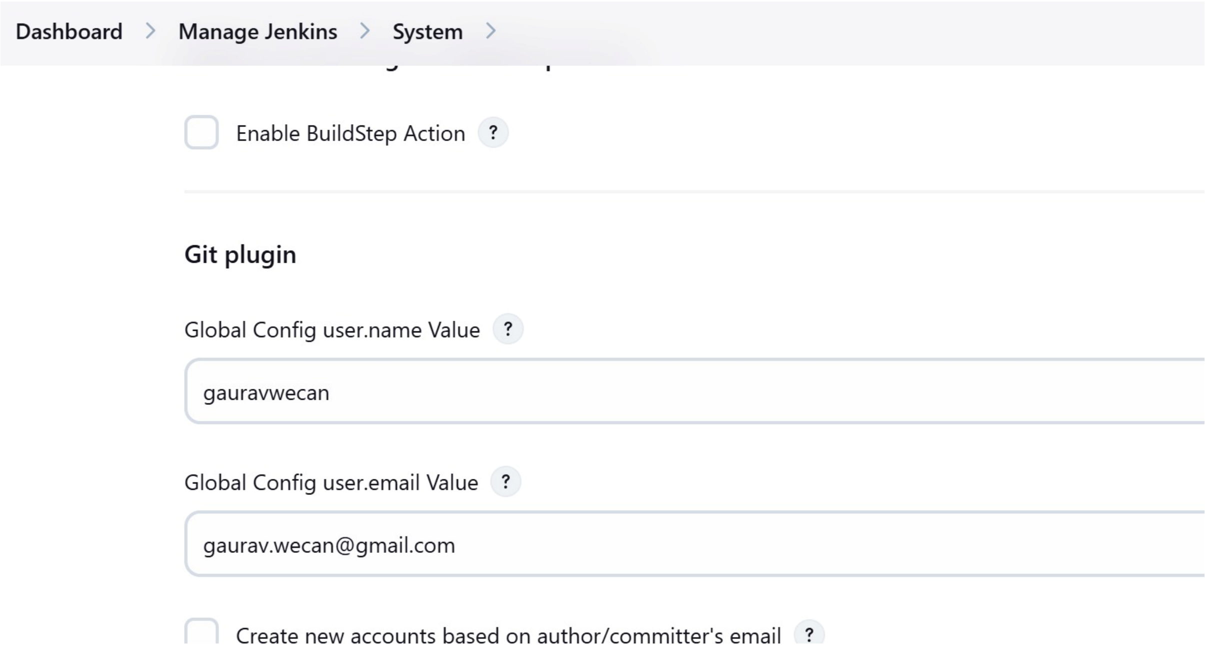
Ansible

Name: ANSIBLE_HOME

Path to ansible executables directory: /usr/bin

⚠ \usr\bin is not a directory on the Jenkins controller (but perhaps it exists on some agents)

□ Install automatically ?



□ Enable BuildStep Action ?

Git plugin

Global Config user.name Value ?

gauravwecan

Global Config user.email Value ?

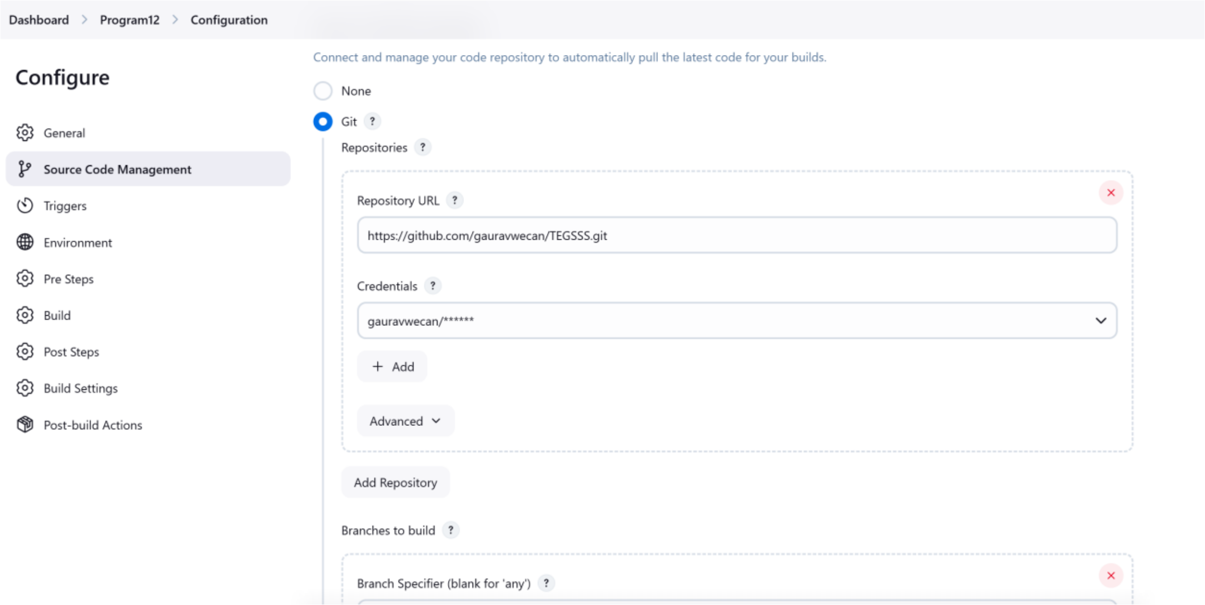
gaurav.wecan@gmail.com

□ Create new accounts based on author/committer's email ?

Once done, Click on Apply and Save

Step 8: Create a New-Item on Jenkins, create a Maven project. Go to Configure project.

Step 9: Under Source Code Management, Add the Git repository path and Credentials.



Connect and manage your code repository to automatically pull the latest code for your builds.

○ None

● Git ?

Repositories ?

Repository URL ?

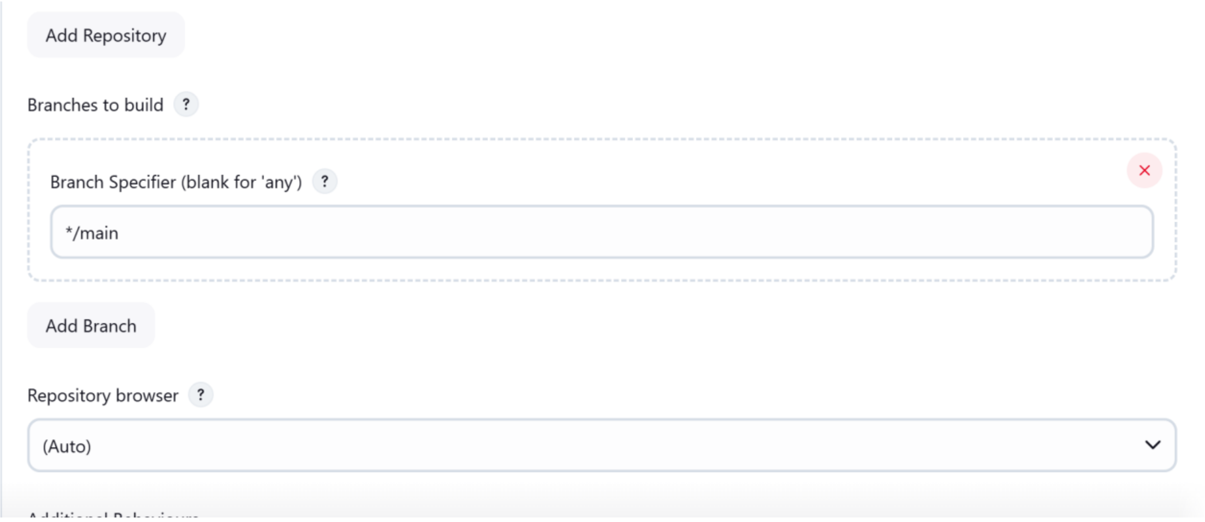
https://github.com/gauravwecan/TEGSSS.git

Credentials ?

gauravwecan/******

Branches to build ?

Branch Specifier (blank for 'any') ?



Add Repository

Branches to build ?

Branch Specifier (blank for 'any') ?

*/main

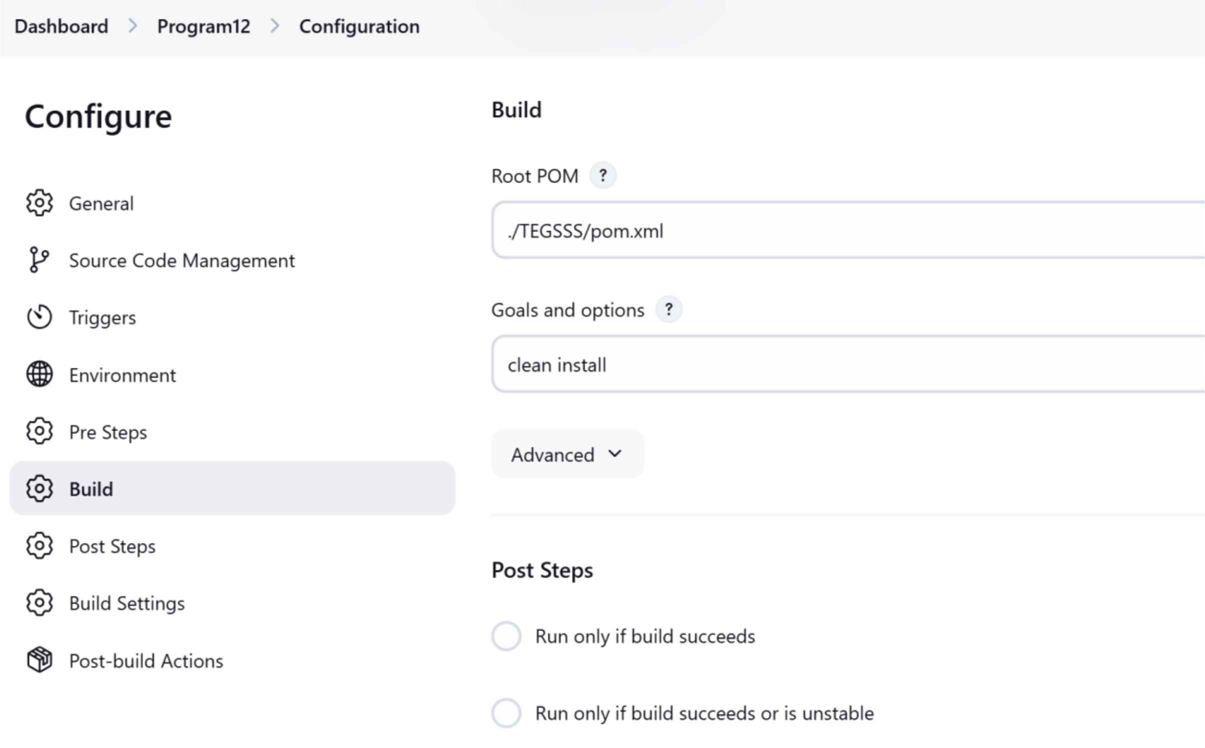
Add Branch

Repository browser ?

(Auto)

Additional Behaviours

Step 10: Go to build within configure, make the following Changes:



Dashboard > Program12 > Configuration

Configure

Build

Root POM ?

./TEGSSS/pom.xml

Goals and options ?

clean install

Advanced

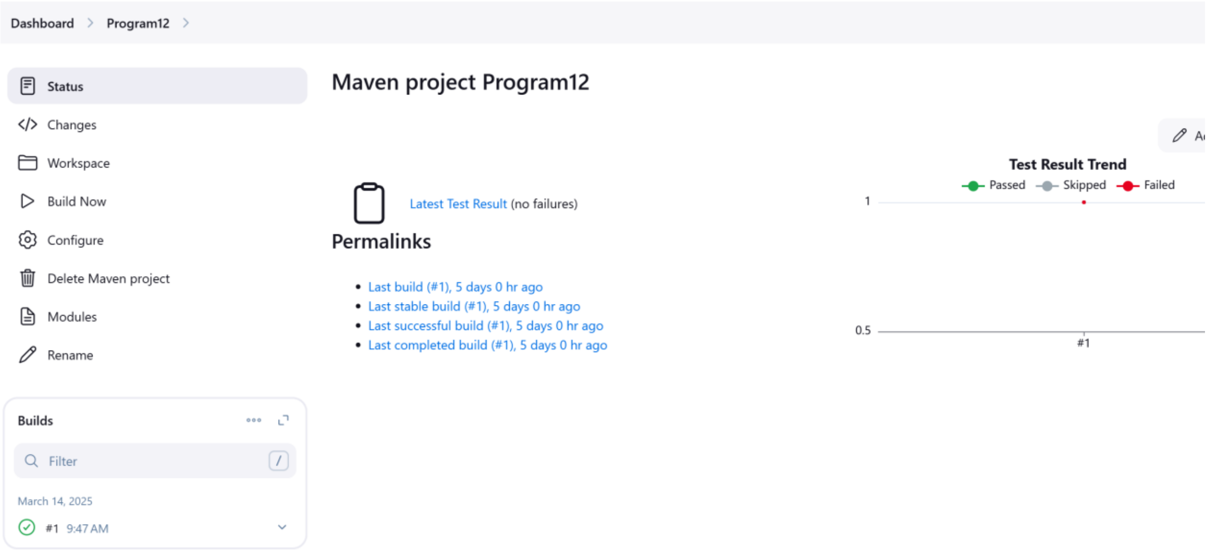
Post Steps

○ Run only if build succeeds

○ Run only if build succeeds or is unstable

Then Click on Apply and Save.

Step 11: Project will be ready. You should see a window like this:



Maven project Program12

Latest Test Result (no failures)

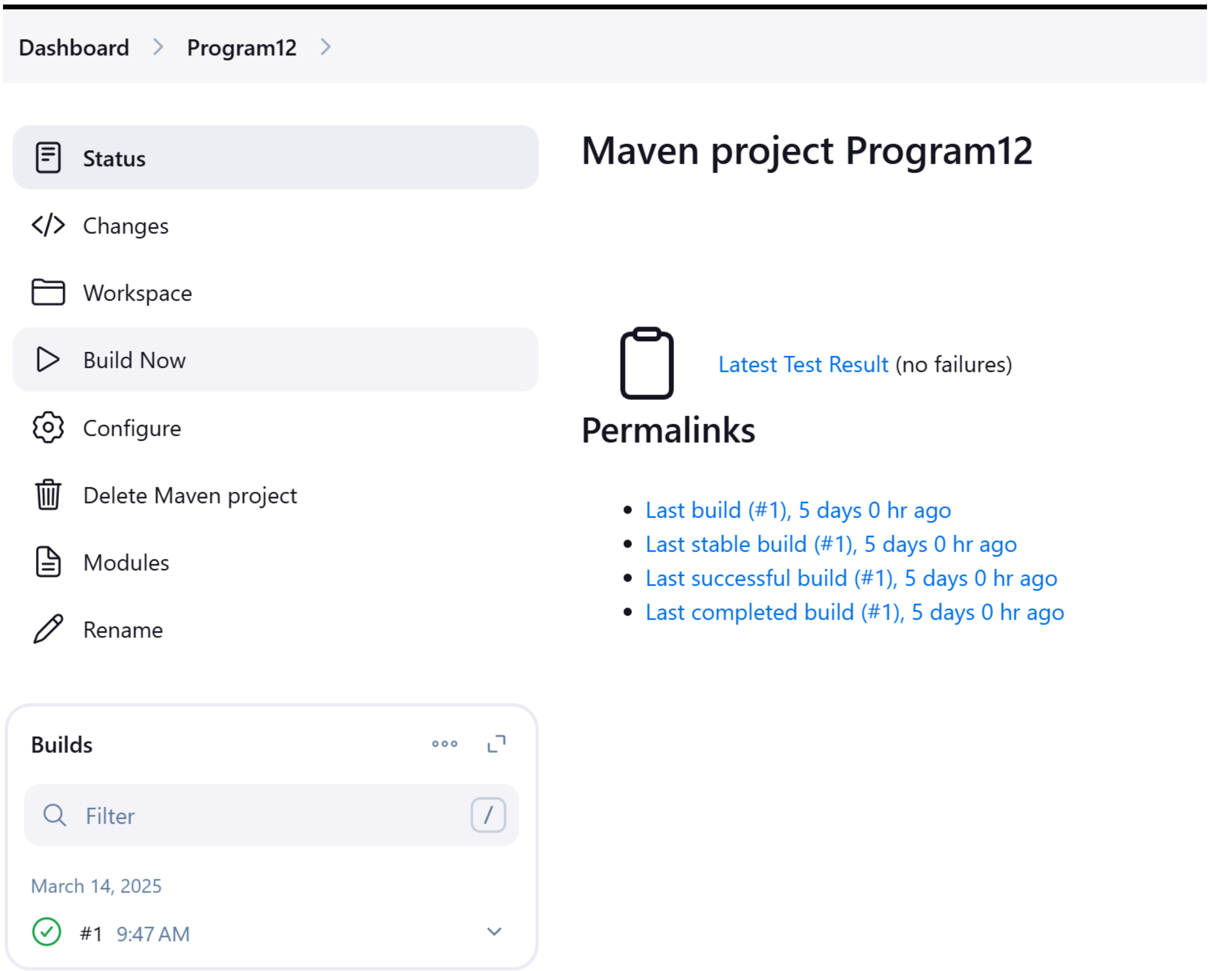
Permalinks

- Last build (#1), 5 days 0 hr ago
- Last stable build (#1), 5 days 0 hr ago
- Last successful build (#1), 5 days 0 hr ago
- Last completed build (#1), 5 days 0 hr ago

March 14, 2025

✓ #1 9:47 AM

Step 12: Click on Build Now:



Maven project Program12

Latest Test Result (no failures)

Permalinks

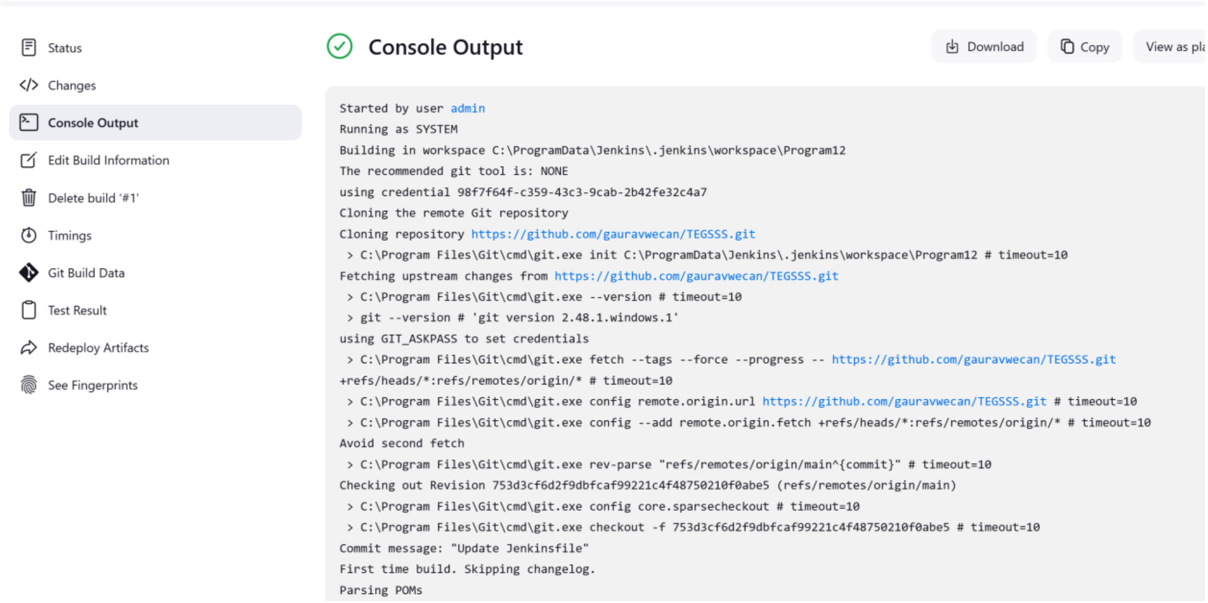
- Last build (#1), 5 days 0 hr ago
- Last stable build (#1), 5 days 0 hr ago
- Last successful build (#1), 5 days 0 hr ago
- Last completed build (#1), 5 days 0 hr ago

March 14, 2025

✓ #1 9:47 AM

If you get a green tick in your builds section.

Click on the tick mark. Go to console output and confirm the result.



```
Started by user admin
Running as SYSTEM
Building in workspace C:\ProgramData\Jenkins\.jenkins\workspace\Program12
The recommended git tool is: NONE
using credential 98f7f64f-c359-43c3-9cab-2b42fe32c4a7
Cloning the remote Git repository
Cloning repository https://github.com/gauravwecan/TEGSSS.git
 > C:\Program Files\Git\cmd\git.exe init C:\ProgramData\Jenkins\.jenkins\workspace\Program12 # timeout=10
Fetching upstream changes from https://github.com/gauravwecan/TEGSSS.git
 > C:\Program Files\Git\cmd\git.exe --version # timeout=10
 > git --version # 'git version 2.48.1.windows.1'
using GIT_ASKPASS to set credentials
 > C:\Program Files\Git\cmd\git.exe fetch --tags --force --progress -- https://github.com/gauravwecan/TEGSSS.git
+refs/heads/*:refs/remotes/origin/* # timeout=10
 > C:\Program Files\Git\cmd\git.exe config remote.origin.url https://github.com/gauravwecan/TEGSSS.git # timeout=10
 > C:\Program Files\Git\cmd\git.exe config --add remote.origin.fetch +refs/heads/*:refs/remotes/origin/* # timeout=10
Avoid second fetch
 > C:\Program Files\Git\cmd\git.exe rev-parse "refs/remotes/origin/main^{commit}" # timeout=10
Checking out Revision 753d3cf6d2f9dbfcaf99221c4f48750210f0abe5 (refs/remotes/origin/main)
 > C:\Program Files\Git\cmd\git.exe config core.sparsecheckout # timeout=10
 > C:\Program Files\Git\cmd\git.exe checkout -f 753d3cf6d2f9dbfcaf99221c4f48750210f0abe5 # timeout=10
Commit message: "Update Jenkinsfile"
First time build. Skipping changelog.
Parsing POMs
```