Lesson 05 Demo 05

Integrating Ant with Jenkins

Objective: To install the Ant plugin and integrate it with Jenkins for automating build and deployment processes in Java projects

Tools required: Git and Jenkins

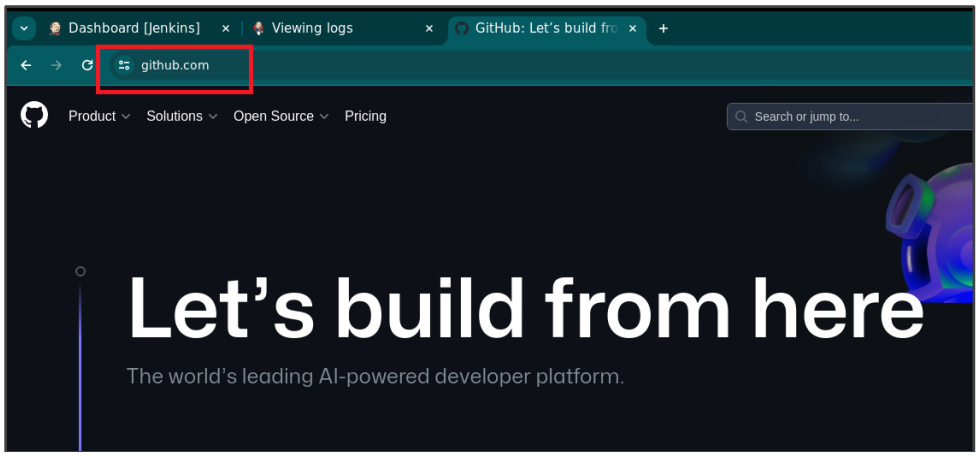
Prerequisite: NA

Steps to be followed:

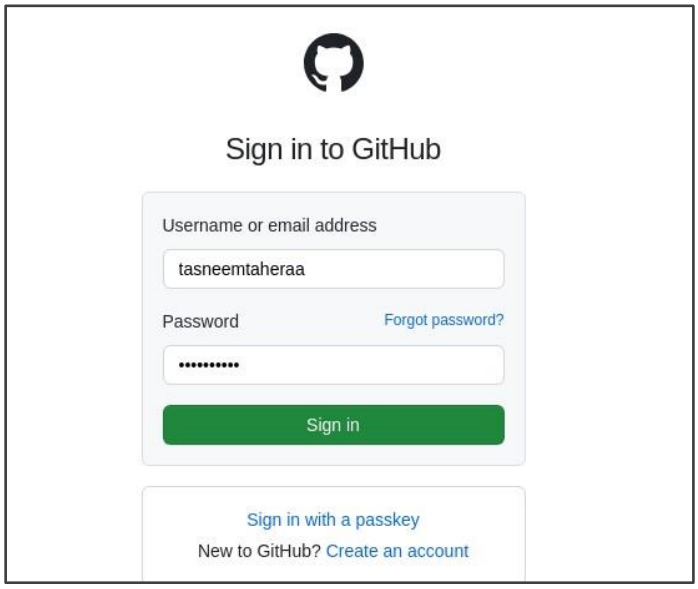
1. Create a GitHub repository
2. Add build.xml file to the repository
3. Set the Global Tool Configuration
4. Integrate Ant with Jenkins

Step 1: Create a GitHub repository

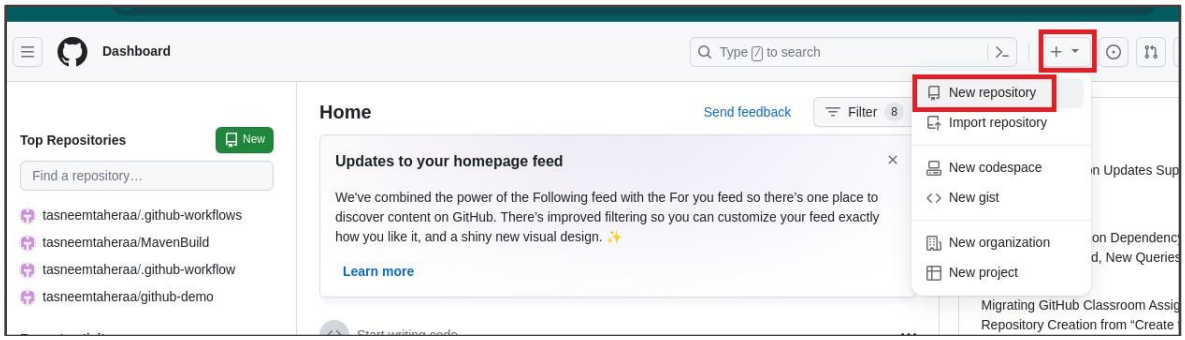
1.1 Open the browser and go to this link **https://github.com/**



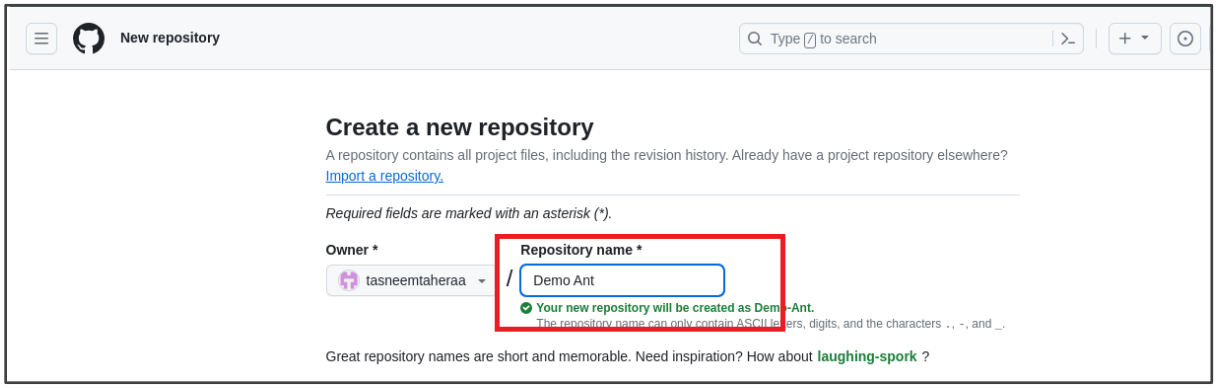
1.2 Enter the credentials for your GitHub account and click on **Sign in**



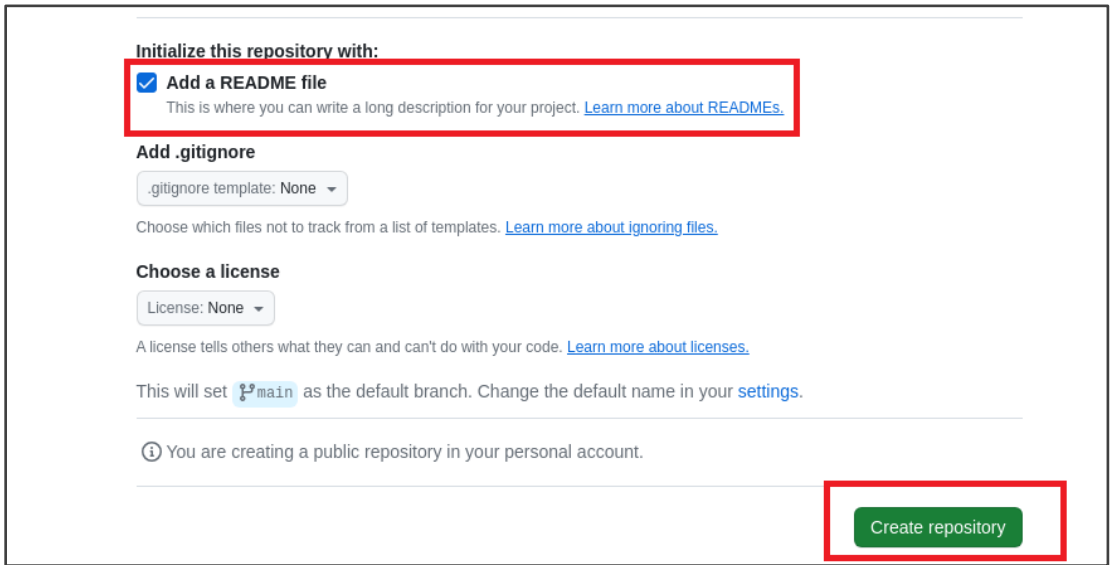
1.3 Click on **+** icon and select **New repository** to create a new repository



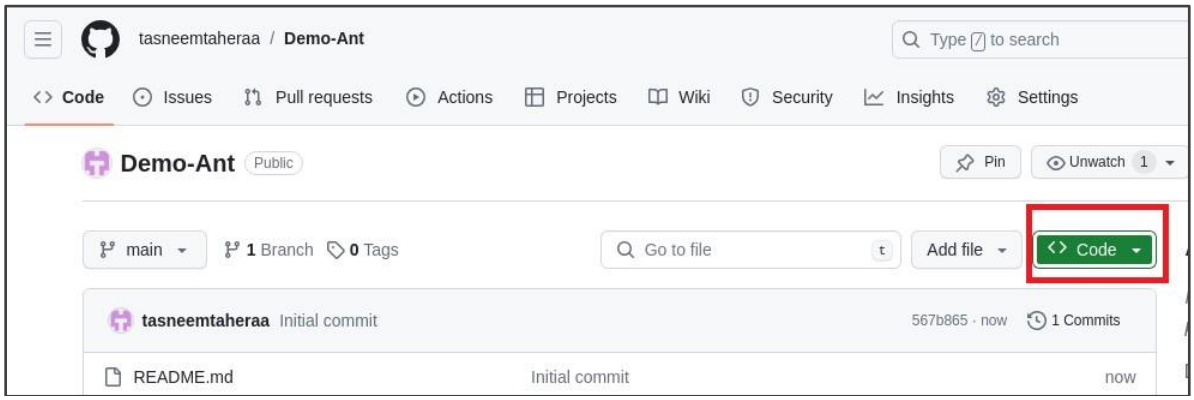
1.4 Give an arbitrary name to the repository



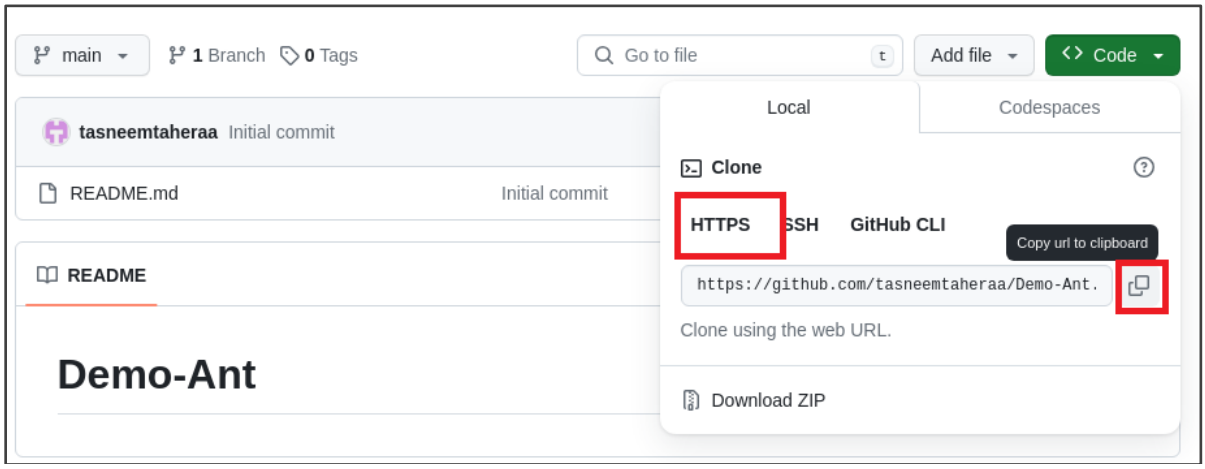
1.5 Select the check box of **ADD a README file** and click on **Create repository**



1.6 Click on the highlighted **Code** section



1.7 Click on **HTTPS** and copy the repository URL



Step 2: Add build.xml file to the repository

2.1 Open the terminal and execute the command **mkdir helloworld** to create a directory

```
labsuser@ip-172-31-40-202:~/helloworld$ mkdir helloworld
```

2.2 Execute the command **cd helloworld** to navigate to the hello-world directory

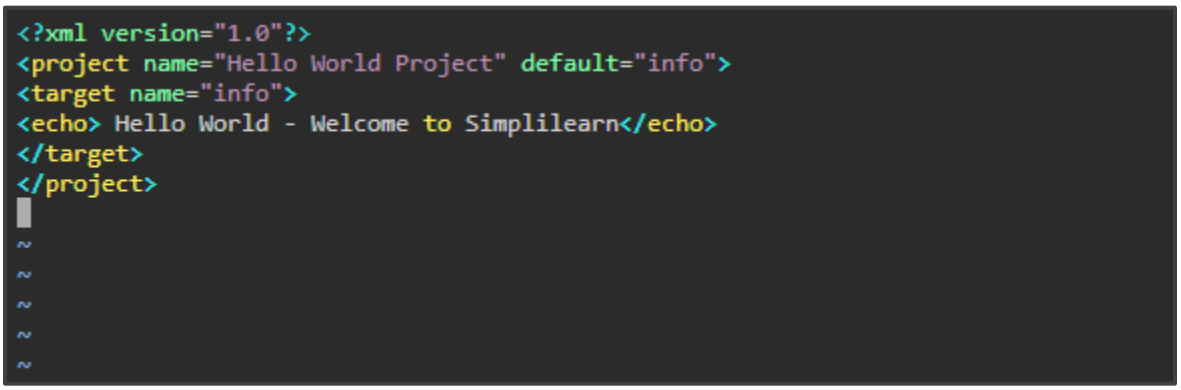
```
labsuser@ip-172-31-39-225:~$ mkdir helloworld
labsuser@ip-172-31-39-225:~$ cd helloworld
labsuser@ip-172-31-39-225:~/helloworld$
```

2.3 Execute the command **vi build.xml** to open the XML file

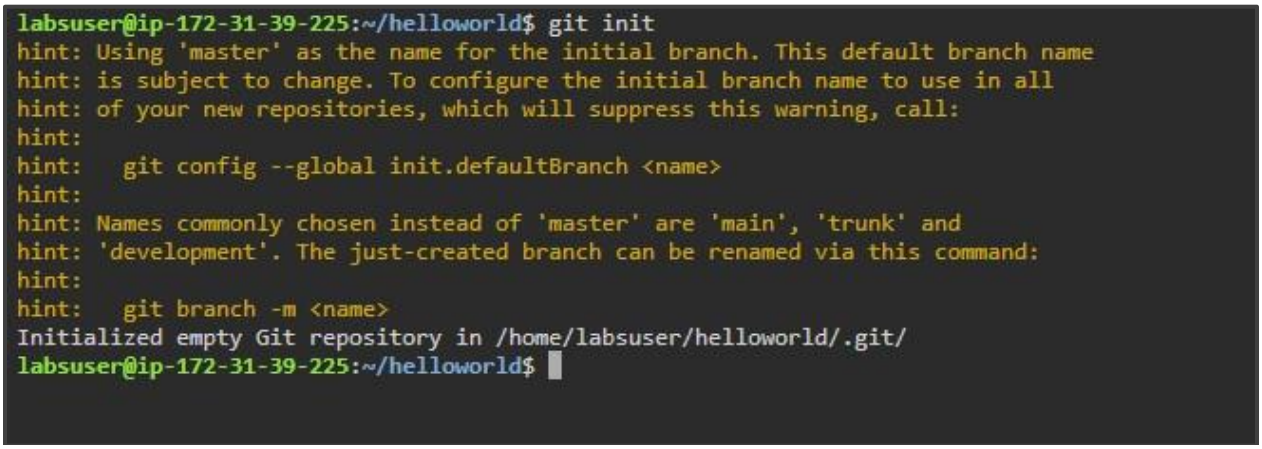
```
labsuser@ip-172-31-39-225:~$ mkdir helloworld
labsuser@ip-172-31-39-225:~$ cd helloworld
labsuser@ip-172-31-39-225:~/helloworld$ vi build.xml
labsuser@ip-172-31-39-225:~/helloworld$
```

2.4 Paste the below code into the file, save the file, and exit the editor:

```
<?xml version="1.0"?>
<project name="Hello World Project" default="info">
<target name="info">
<echo> Hello World - Welcome to Simplilearn</echo>
</target>
</project>
```



2.5 Run the **git init** command to initialize a new repository



2.6 Execute the following commands to add the new files:

git add .

git commit -m “Add new files”

```
labsuser@ip-172-31-39-225:~/helloworld$ git add .
labsuser@ip-172-31-39-225:~/helloworld$ git commit -m "Add new files"
[master (root-commit) a9196b2] Add new files
 1 file changed, 7 insertions(+)
 create mode 100644 build.xml
labsuser@ip-172-31-39-225:~/helloworld$
```

2.7 Execute the following commands to link the local repository to a remote repository and push local changes to the remote master branch:

git remote add origin <Repository_URL.git>

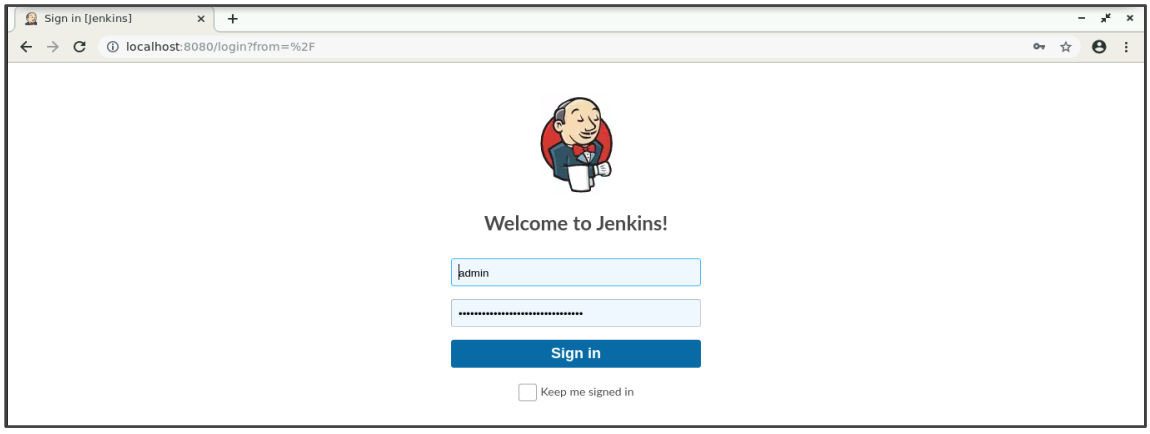
git push -u origin master

```
labsuser@ip-172-31-32-183:~$ git remote add originhttps://github.com/tasneemtaheraa/Demo-Ant.git
```

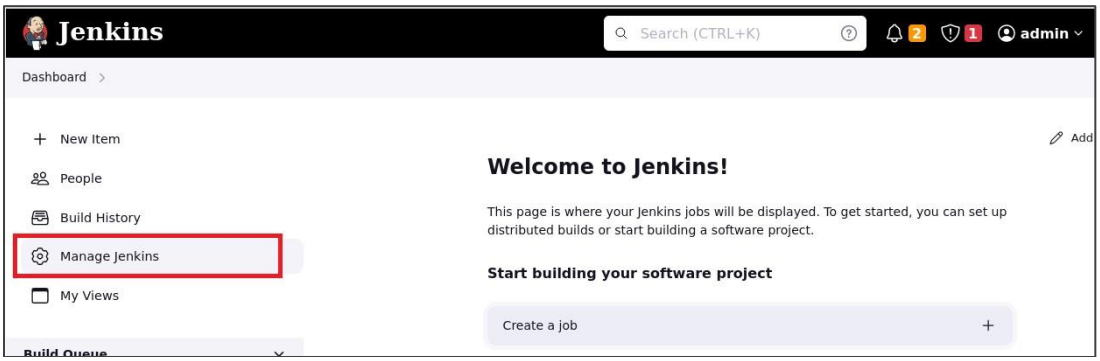
```
labsuser@ip-172-31-32-183:~$ git push -u origin master
Username for 'https://github.com': tasneemtaheraa
Password for 'https://tasneemtaheraa@github.com':
Enumerating objects: 647, done.
Counting objects: 100% (647/647), done.
Delta compression using up to 2 threads
```

Step 3: Set the Global Tool Configuration

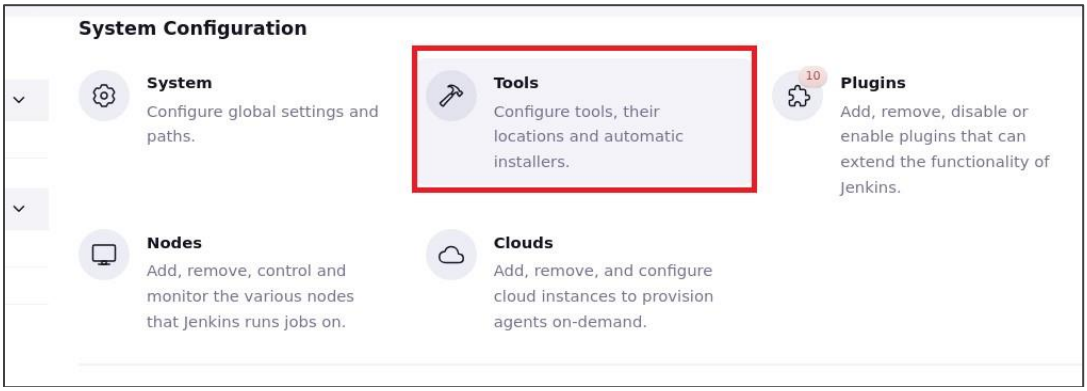
3.1 To access the Jenkins dashboard, open your browser, type **localhost:8080**, and enter the credentials, then click **Sign in**



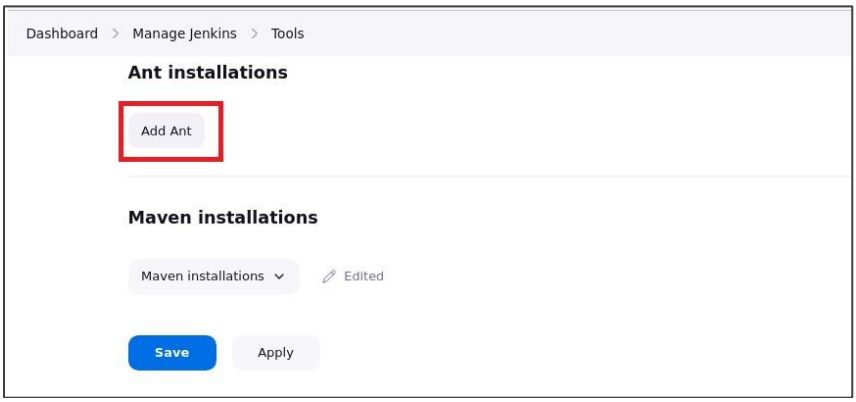
3.2 In the **Jenkins Dashboard**, click on **Manage Jenkins**

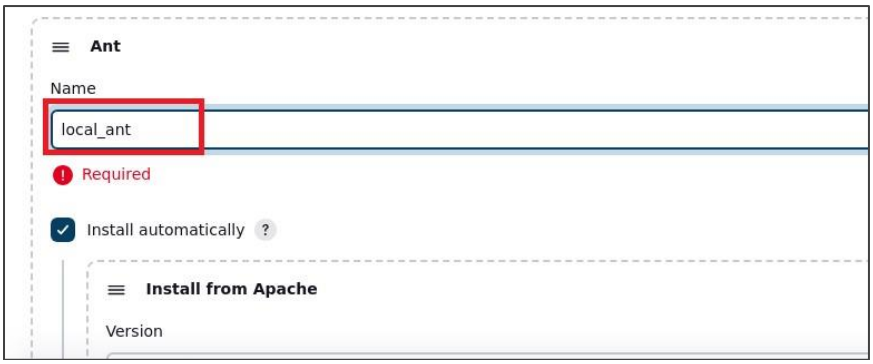


3.3 Choose **Tools** from the list of options

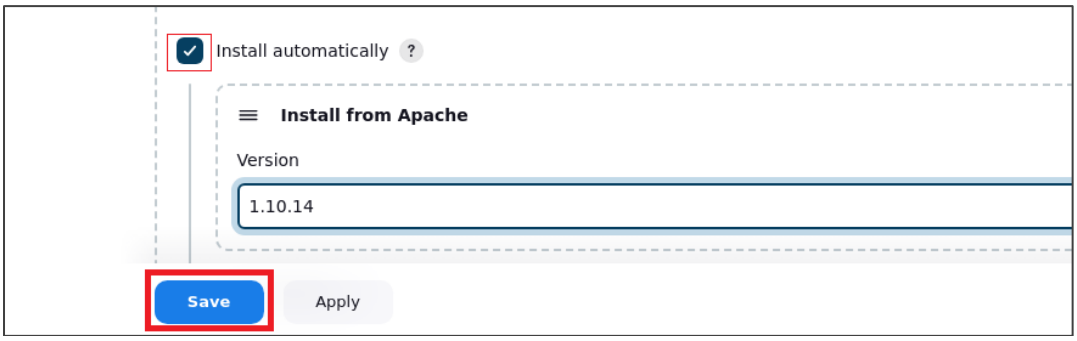


3.4 Click on **Add Ant** and provide the **Name** as **local_ant**



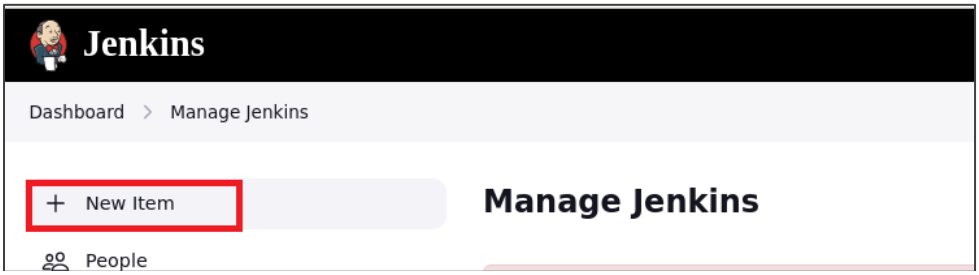


3.5 Select the **Version** you want to install, check the **Install automatically** box, then click on **Save**

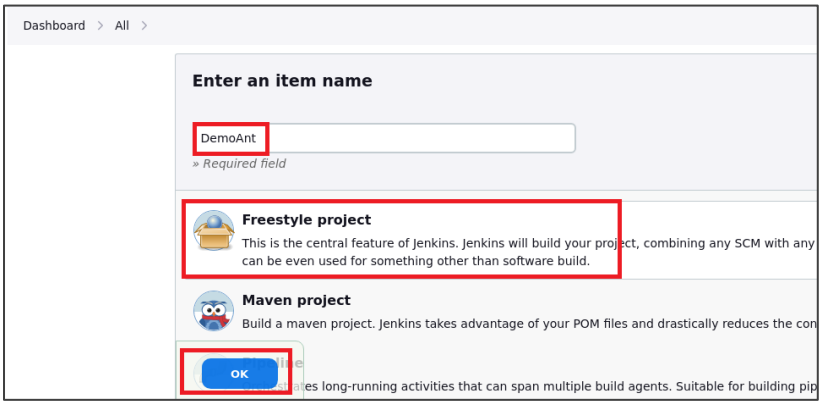


Step 4: Integrate Ant with Jenkins

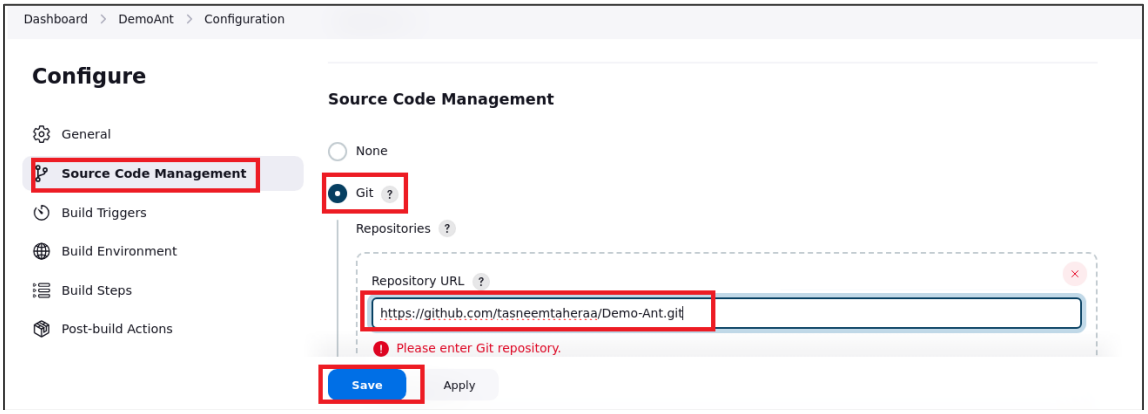
4.1 Click on **New Item** in the Jenkins dashboard



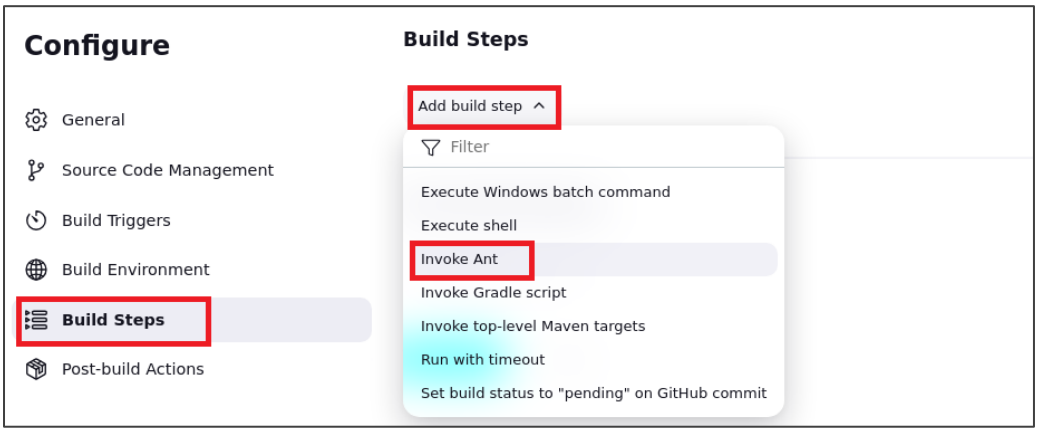
4.2 **Enter an item name** as **DemoAnt** for your project, select the **Freestyle project** as the build job type, and click on **OK**



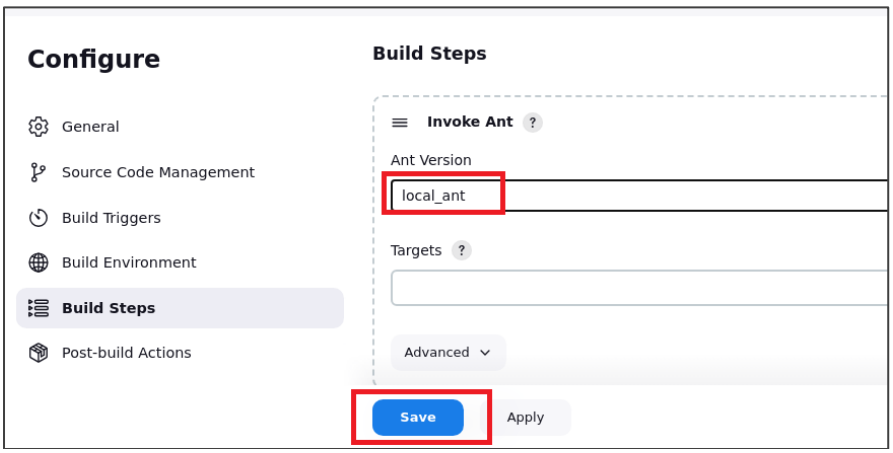
4.3 Scroll down to the **Source Code Management** section, select **Git**, enter the **Repository URL**, and click on **Save**



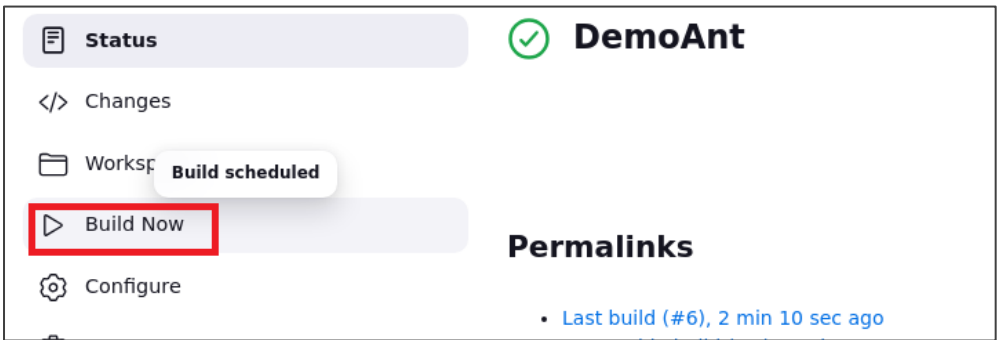
4.4 Navigate to **Build Steps**, click on the **Add build step** option, and select **Invoke Ant**



4.5 Select the **Ant Version** you want to work with and click on **Save**

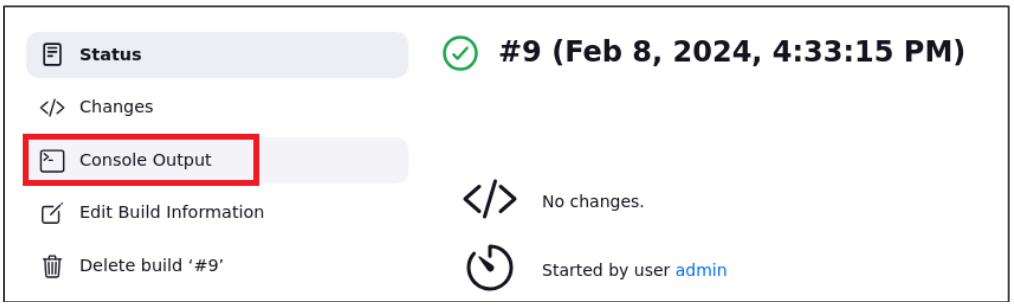


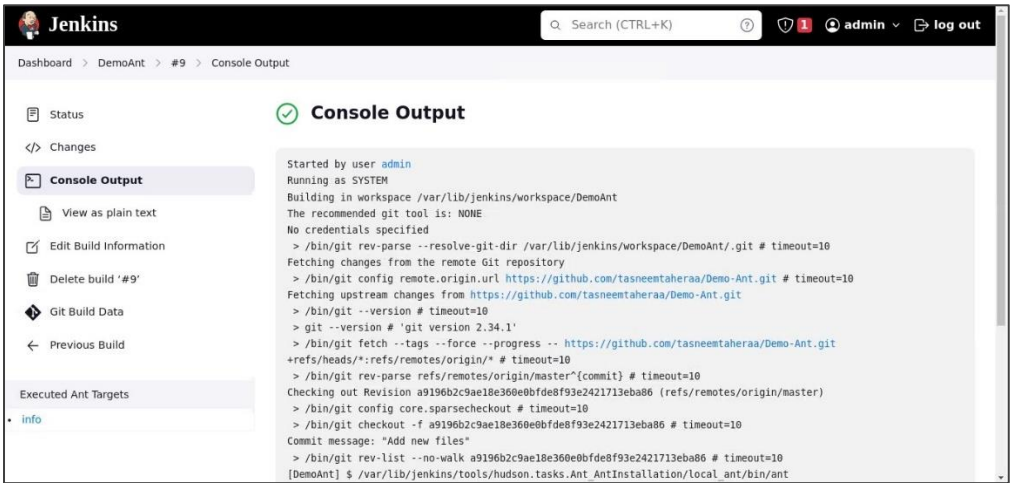
4.6 Then, click on **Build Now**



4.7 Click on the **Build History** to view the build results

4.8 Click on the **Console Output** to view the build logs





By following these steps, you have successfully installed the Ant plugin and integrated it with Jenkins, enabling the automation of build and deployment processes in Java projects.