

Lab Exercise 8

Setting up Maven Build Job in Jenkins

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Batch-3

Objective: To set up Maven build job in Jenkins for automating the build process, enabling continuous integration to enhance the software development lifecycle

Tools required: Jenkins

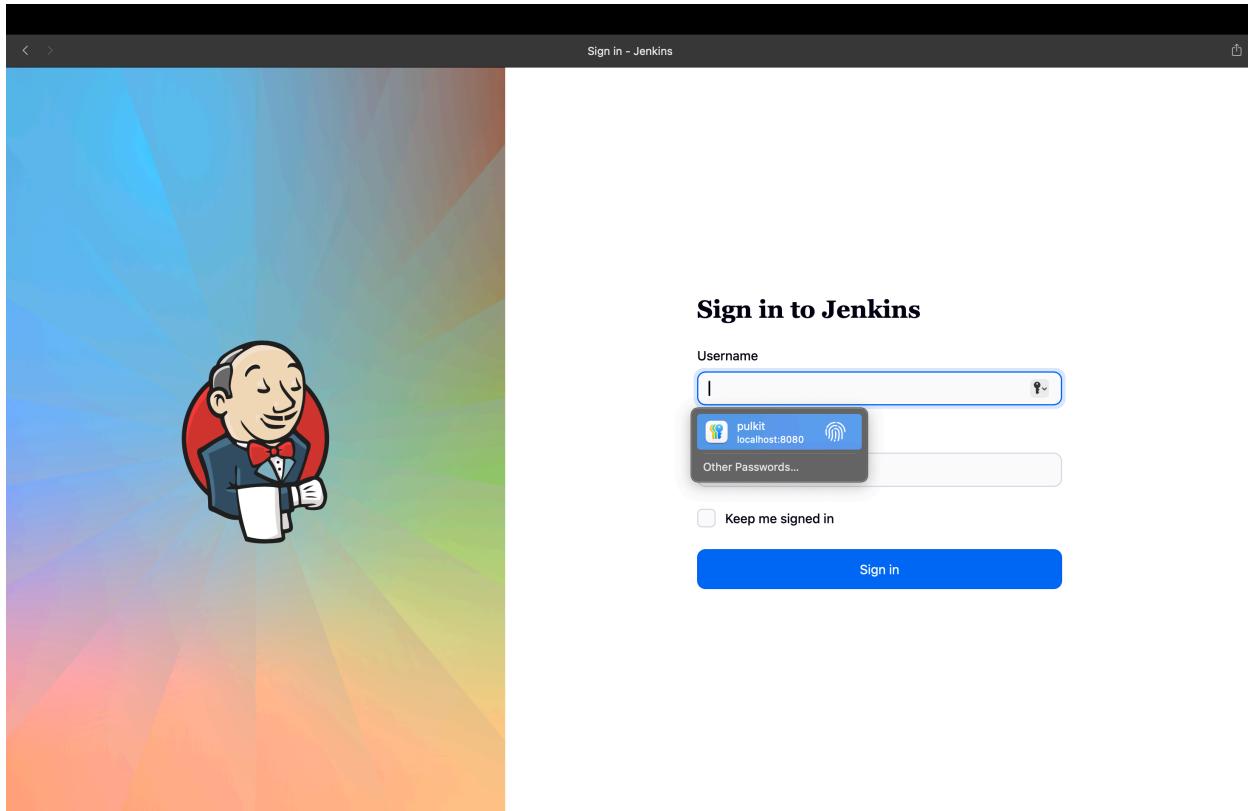
Prerequisites: You need to have a Jenkins up and running.

Steps to be followed:

1. Log in to Jenkins CI tool and configure Maven freestyle job

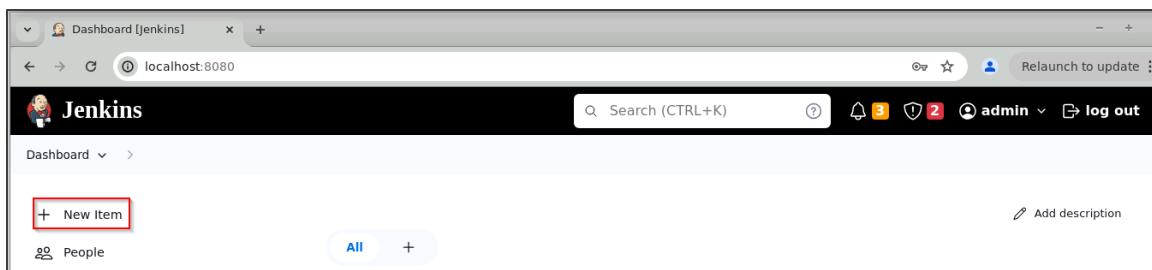
Step 1: Log in to Jenkins CI tool and configure Maven freestyle job

1. Log in to Jenkins using your credentials

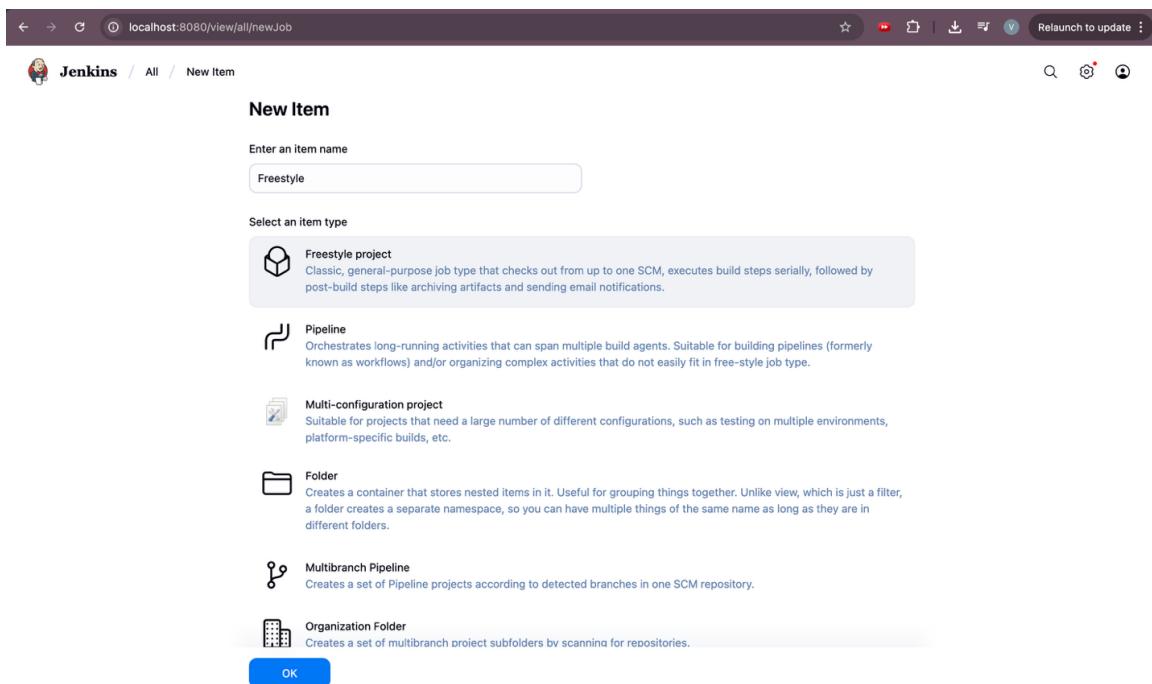


Note: The credentials for accessing Jenkins in the lab are Username: **admin** and Password: **admin**.

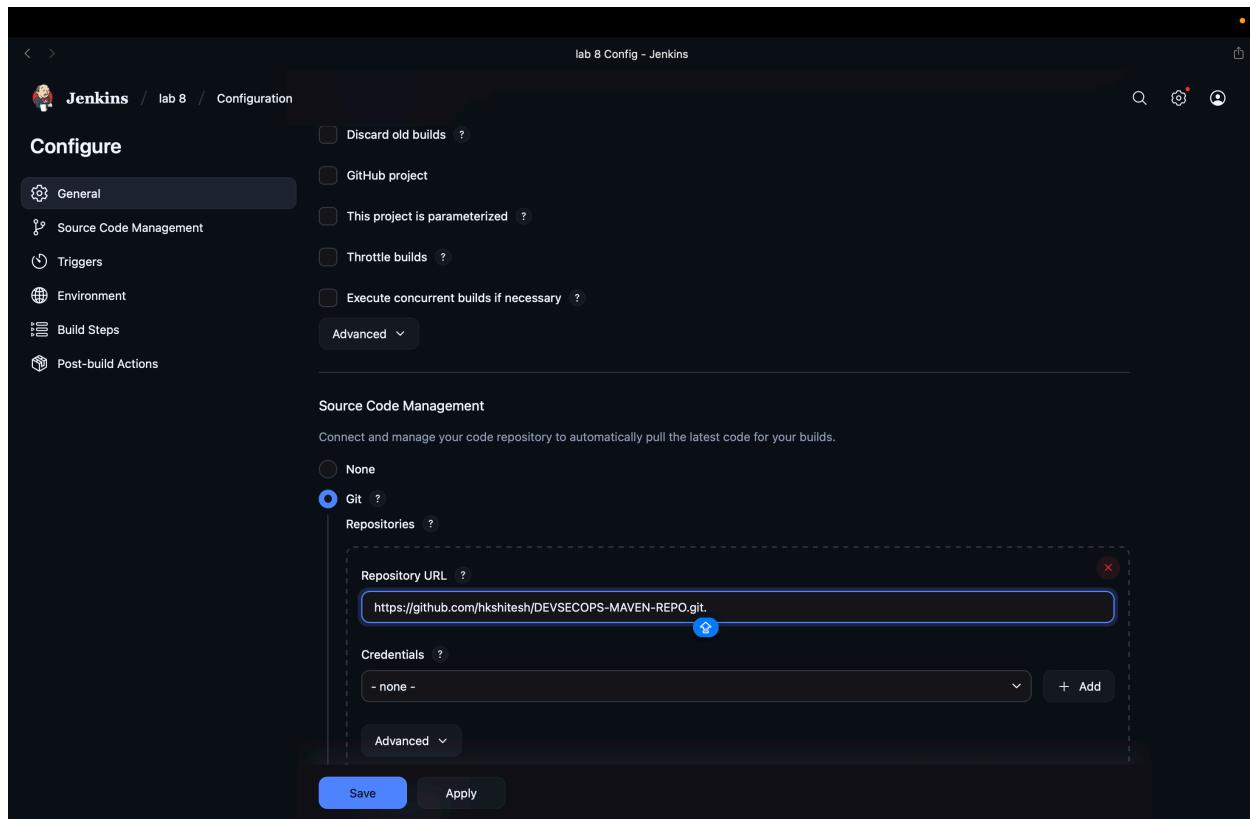
2. In the Jenkins dashboard, click on **New Item**



3. Select the **Freestyle project** while creating a Jenkins job, provide a custom job name, and click on **OK**



- Now, in the Configure page, navigate to **Source Code Management** in the left navigation bar, select **Git**, and then provide the Git repository URL



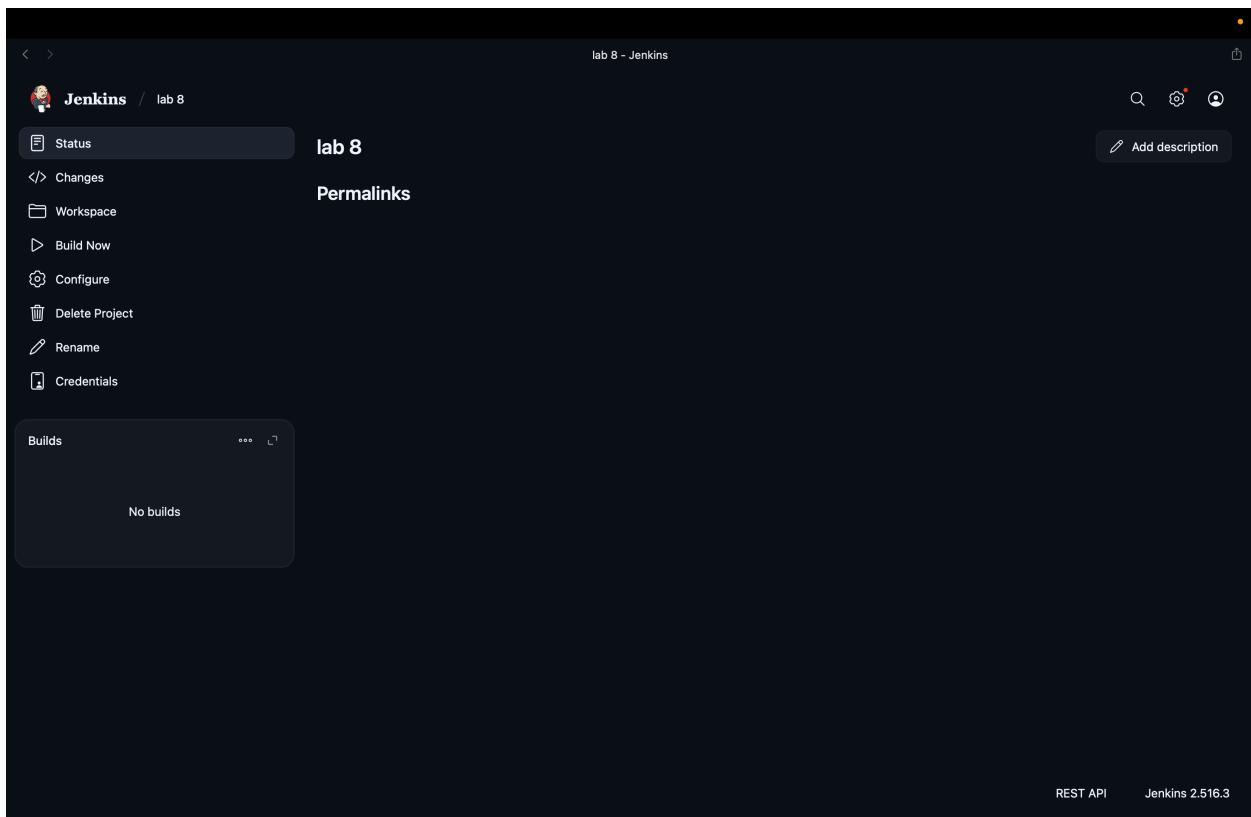
- Now, navigate to **Build Steps**, click on **Add build step**, and then select the option **Invoke top-level Maven targets**

The screenshot shows the Jenkins configuration interface for a job named "lab 8". The left sidebar lists configuration sections: General, Source Code Management, Triggers, Environment (selected), Build Steps, and Post-build Actions. The main area is titled "Configure" and contains the "Environment" section, which allows setting workspace deletion, timestamps, and other parameters. Below it is the "Build Steps" section, which includes a dropdown menu for "Add build step" and a list of available steps: Execute Windows batch command, Execute shell, Invoke Ant, Invoke Gradle script, Invoke top-level Maven targets (which is currently selected), Run with timeout, and Set build status to "pending" on GitHub commit. A note indicates these steps can be used for sending notifications, archiving artifacts, or triggering other jobs.

6. Provide clean install under **Goals** section and then click on **Save**

This screenshot shows the Jenkins configuration interface for the same job ("lab 8"). The left sidebar shows the "Build Steps" section is selected. In the main area, the "Build Steps" section is expanded, showing a single step: "Invoke top-level Maven targets" with the goal "CLEAN INSTALL" specified. There is also an "Advanced" button for this step. Below the build steps is the "Post-build Actions" section, which is currently empty. At the bottom of the page are "Save" and "Apply" buttons.

7. You will be navigated to the project after clicking on Save. Now, click on **Build Now** to initiate a new build, and the build logs will display the progress of the build process.



You can see that the build is configured successfully.

By following these steps, you have successfully set up Maven build job in Jenkins for automating the build process, enabling continuous integration to enhance the software development lifecycle.

< > Jenkins / lab 8 / #7 / Console Output

```
Progress (2): 89/157 kB | 82/193 kB
Progress (2): 106/157 kB | 82/193 kB
Progress (2): 106/157 kB | 98/193 kB
Progress (2): 122/157 kB | 98/193 kB
Progress (2): 122/157 kB | 115/193 kB
Progress (2): 139/157 kB | 115/193 kB
Progress (2): 139/157 kB | 131/193 kB
Progress (2): 155/157 kB | 131/193 kB
Progress (2): 155/157 kB | 147/193 kB
Progress (2): 157 kB | 147/193 kB
Progress (2): 157 kB | 164/193 kB

Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/resolver/maven-resolver-api/1.9.18/maven-resolver-api-1.9.18.jar (157 kB at 7.1 MB/s)
Progress (1): 180/193 kB
Progress (1): 193 kB

Downloaded from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-utils/4.0.1/plexus-utils-4.0.1.jar (193 kB at 8.4 MB/s)
[INFO] Installing /Users/pulkit/.jenkins/workspace/lab 8/pom.xml to
/Users/pulkit/.m2/repository/upes/devops/upes.devops/0.0.1-SNAPSHOT/upes.devops-0.0.1-SNAPSHOT.pom
[INFO] Installing /Users/pulkit/.jenkins/workspace/lab 8/target/upes-calc.jar to
/Users/pulkit/.m2/repository/upes/devops/upes.devops/0.0.1-SNAPSHOT/upes.devops-0.0.1-SNAPSHOT.jar
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 7.070 s
[INFO] Finished at: 2025-09-22T12:10:25+05:30
[INFO] -----
Finished: SUCCESS
```

REST API Jenkins 2.516.3