Lesson 06 Demo 02

Integrating Maven with Jenkins

Objective: To install the Maven plugin in Jenkins for smooth integration and automation of Maven-based build processes within the Jenkins environment

Tools required: Git, GitHub, and Jenkins

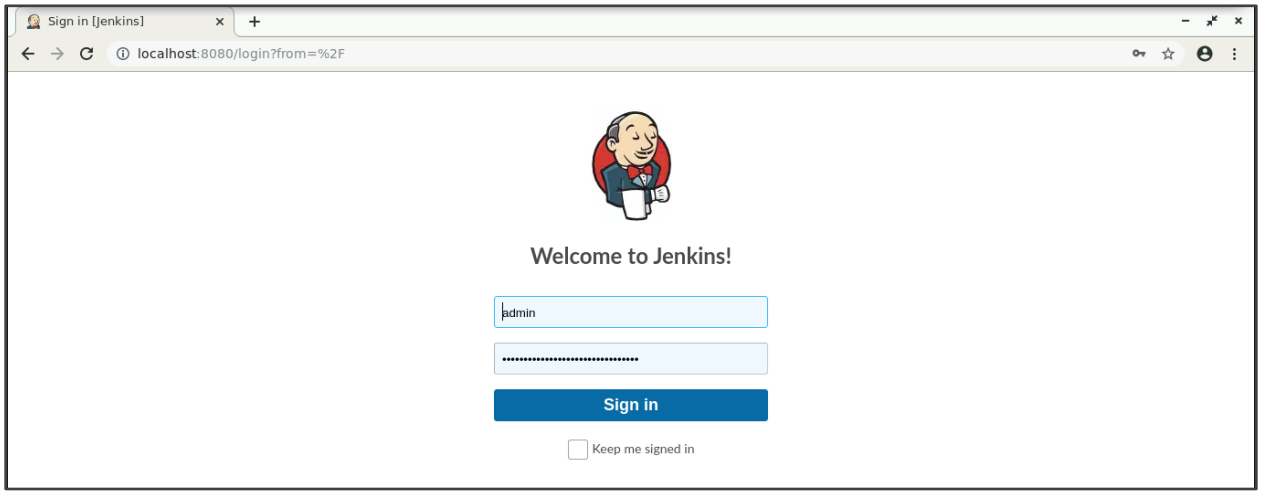
Prerequisites: None

Steps to be followed:

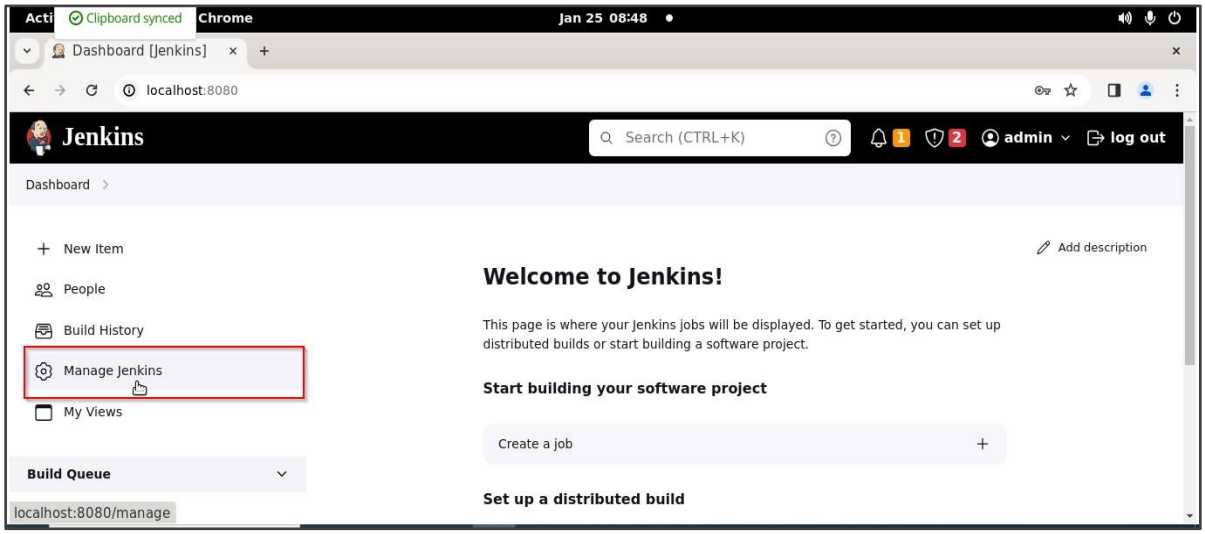
1. Install the Maven plugin
2. Set up Global Tool Configuration
3. Fork a sample repository
4. Integrate Maven with Jenkins

Step 1: Install the Maven plugin

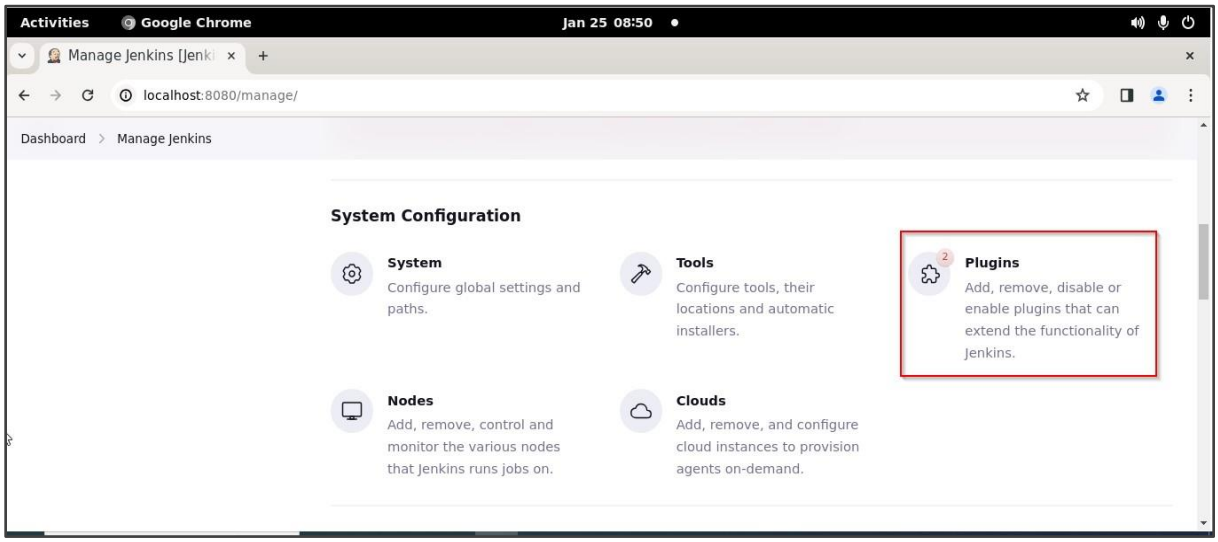
1.1 Open the browser, go to the Jenkins Dashboard by typing **localhost:8080** in your browser, provide the credentials, and click the **Sign in** button



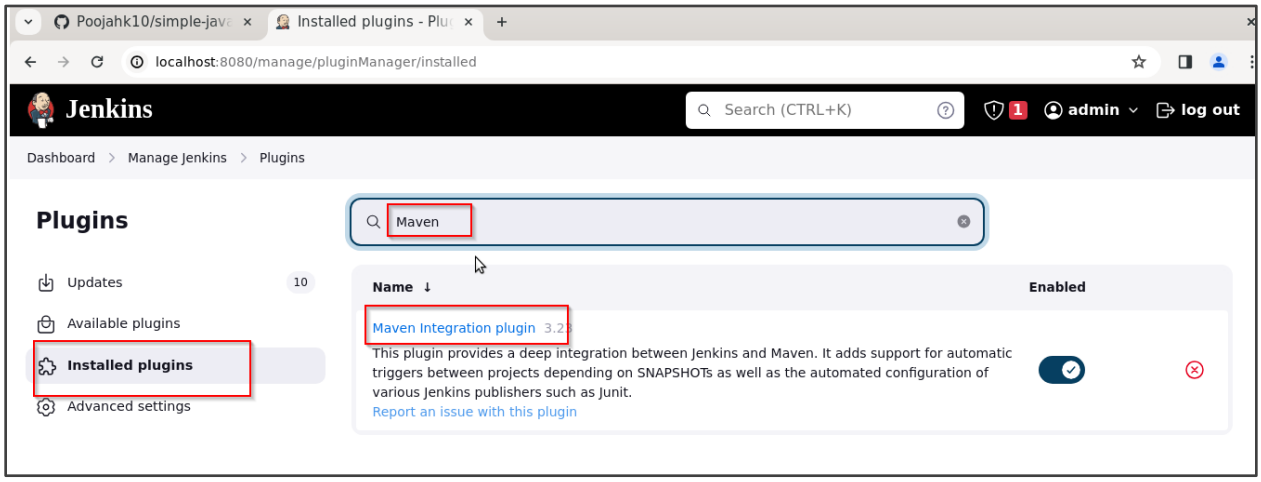
1.2 Click on the **Manage Jenkins** option as shown in the screenshot below:



1.3 Click on the **Plugins** option as shown in the screenshot below:

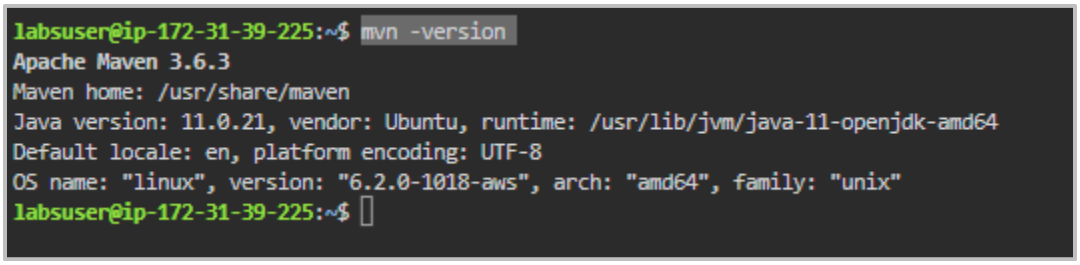


1.4 Click on **Installed plugins** to verify whether the **Maven Integration plugin** has been installed



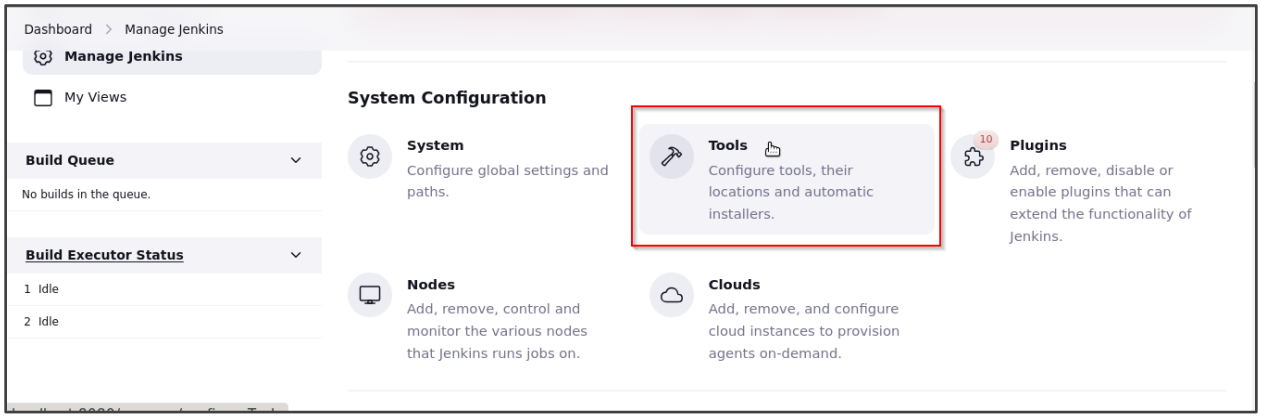
Note: Maven is already installed in your practice lab environment. If not, click on **Available plugins** and search for **Maven Integration plugin** and install it.

1.5 Use the following command to check the Maven version:
mvn -version



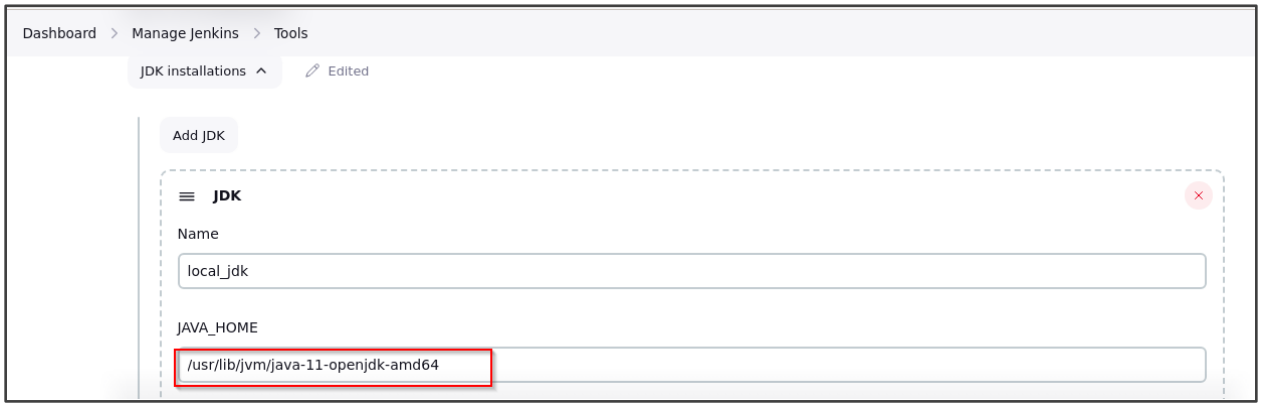
Step 2: Set up Global Tool Configuration

2.1 Go to the Jenkins Dashboard, click on **Manage Jenkins**, and then select **Tools** from the list of options



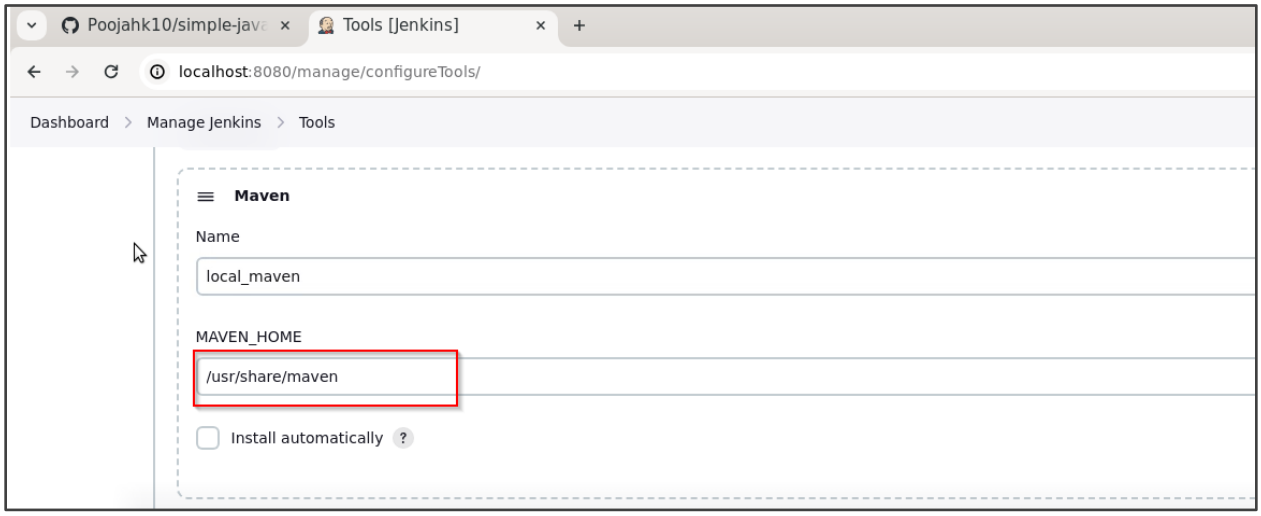
2.2 Click on **JDK installations** and provide the **Name** and **JAVA_HOME** path

> **Note:** Set the **JAVA_HOME** environment variable to **/usr/lib/jvm/java-11-openjdk-amd64**



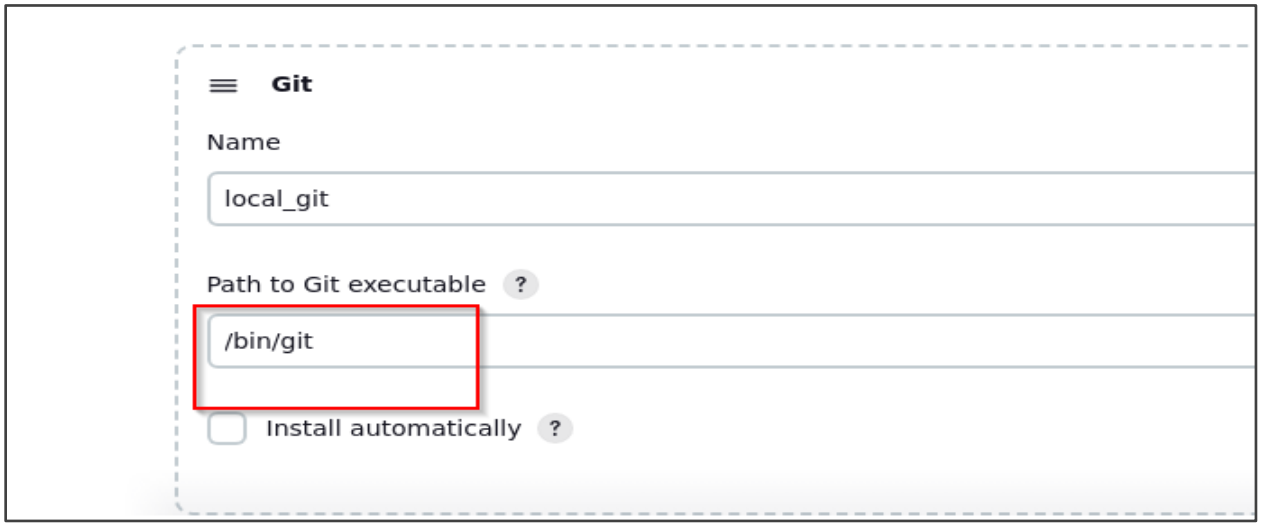
2.3 To configure Maven, click on the **Maven installations** button in the Maven section and enter a **Name** and **MAVEN_HOME** path

Note: Set the **MAVEN_HOME** environment variable to **/usr/share/maven**



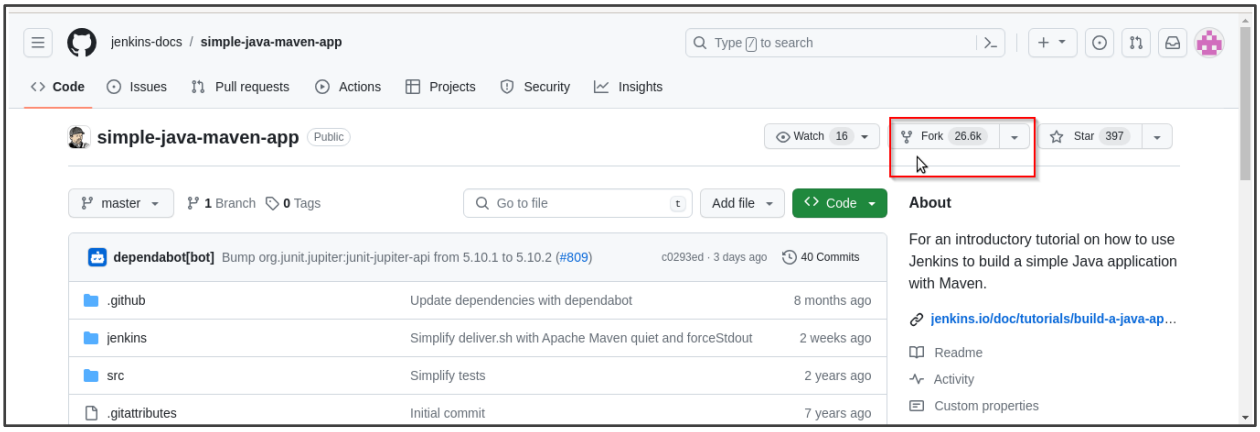
2.4 To configure Git, click on **Git installations** and add the **Name** and **Path to Git executable**

Note: Set the **Path to Git executable** environment variable to **/bin/git** and click on **Save**

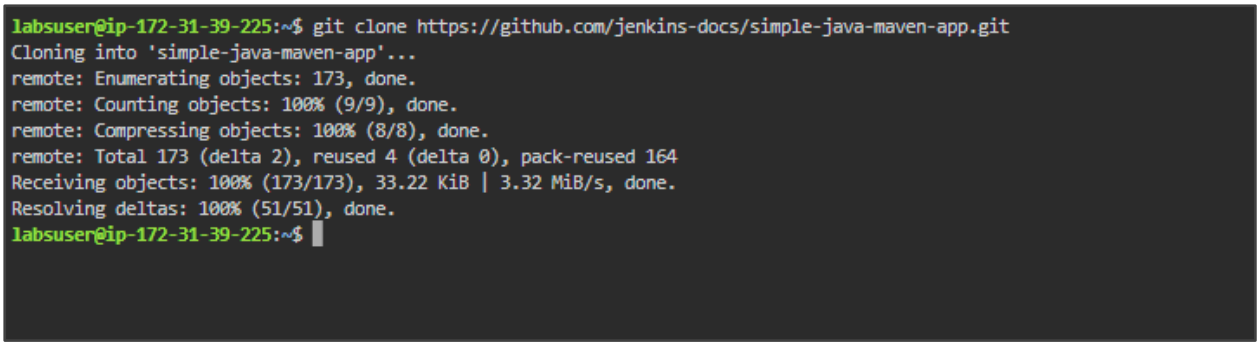


Step 3: Fork a sample repository

3.1 Log in to your GitHub account, navigate to **https://github.com/jenkins-docs/simple-java-maven-app**, and click on **Fork**

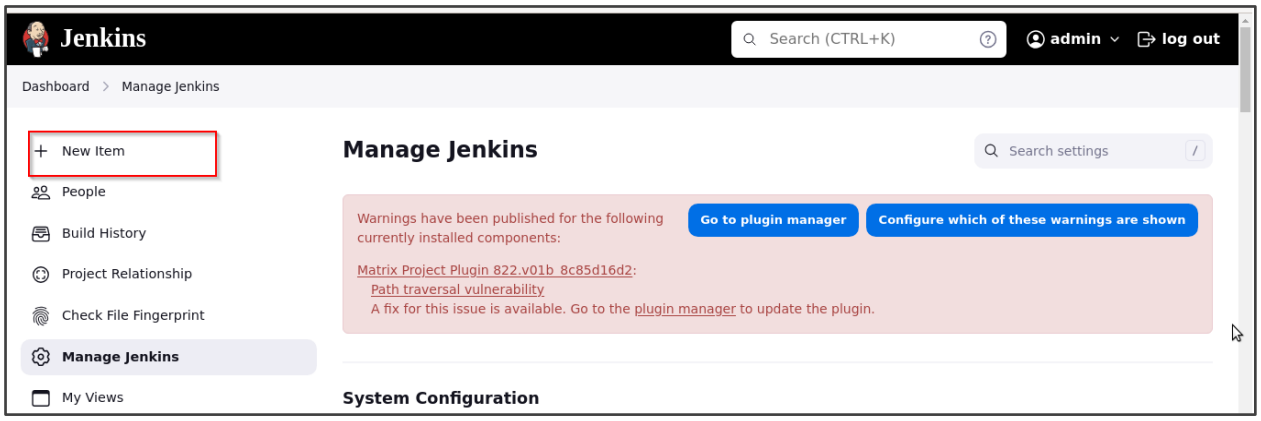


3.2 Run **git clone [Forked REPO URL]** in the terminal to clone the repository locally



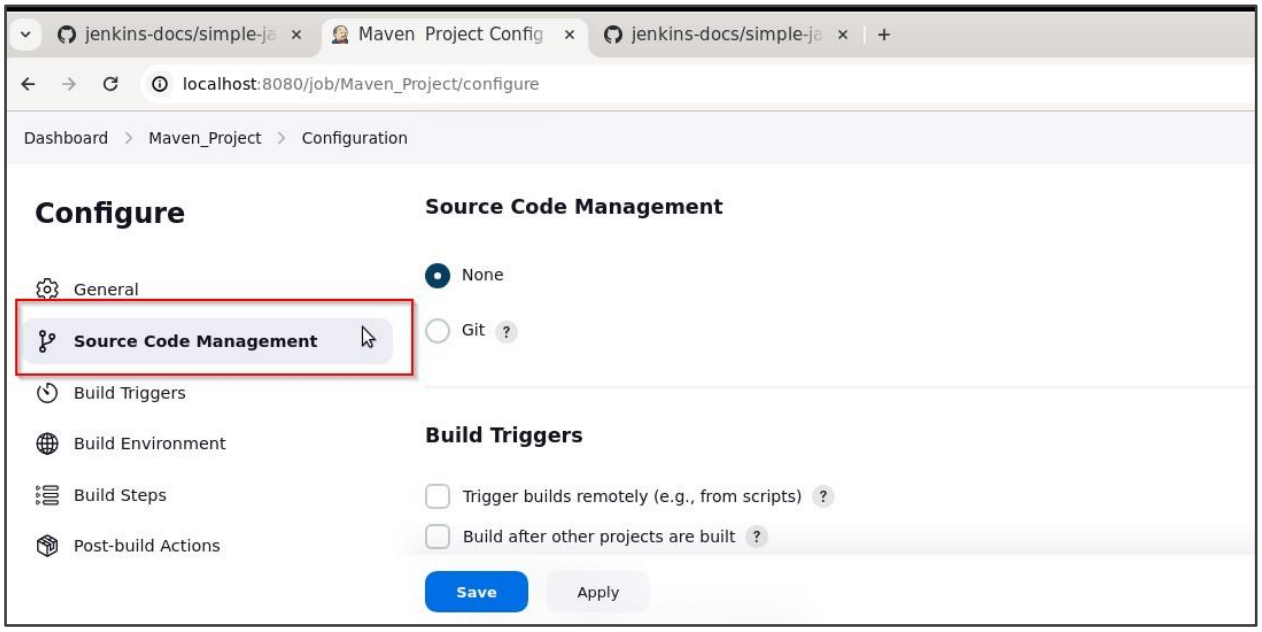
Step 4: Integrate Maven with Jenkins

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

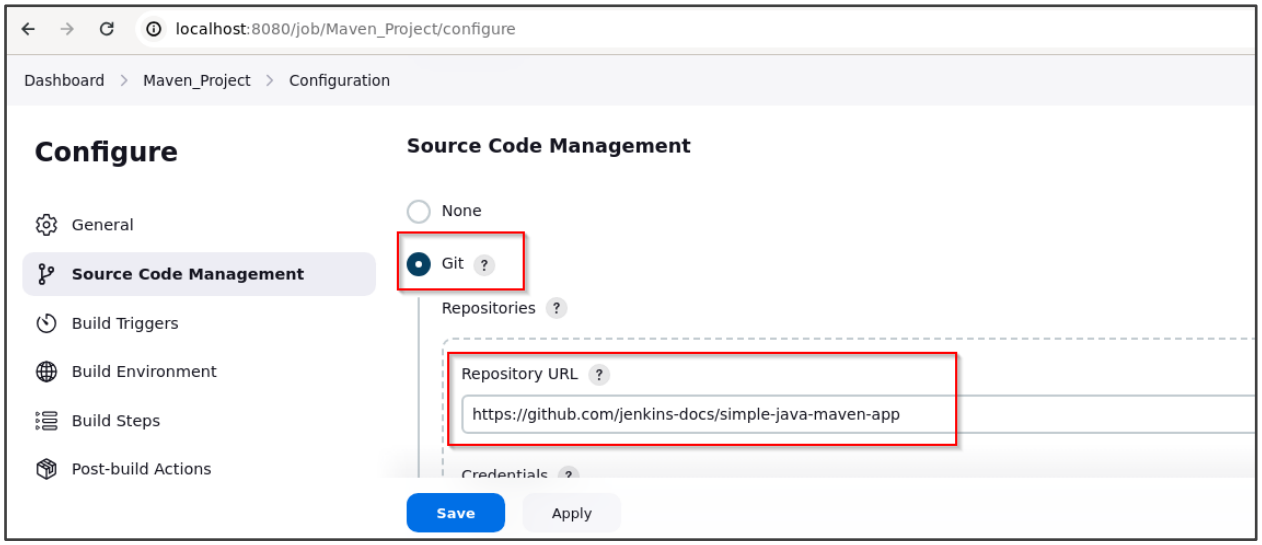


4.2 Enter a name for the project, select **Freestyle project** as the build job type, and click on the **OK** button as shown in the screenshot below:

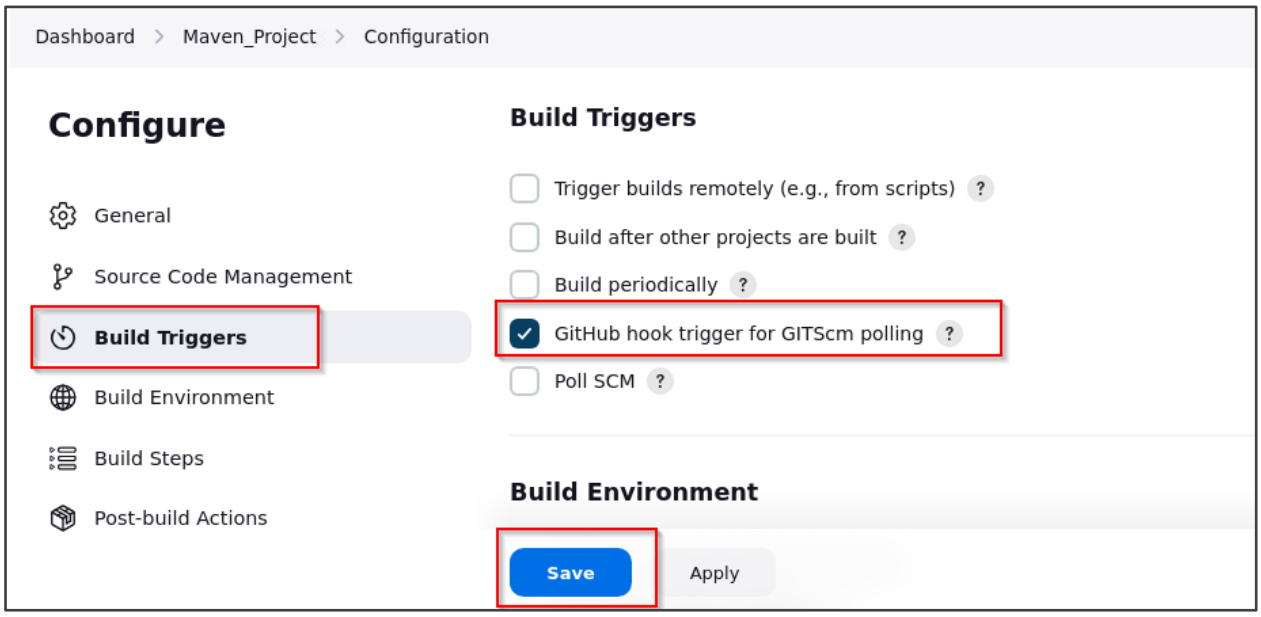
4.3 Click on **Source Code Management**



4.4 Select **Git** and enter the **Repository URL**

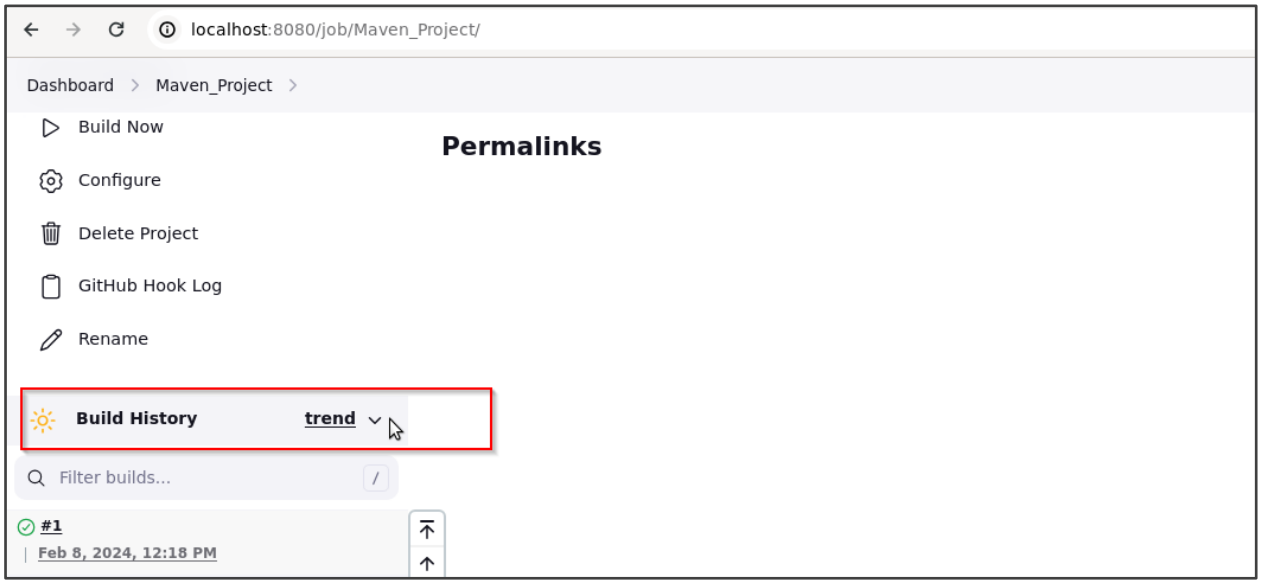


4.5 Click on **Build Triggers**, select the required option as shown in the screenshot below, and then click on **Save**

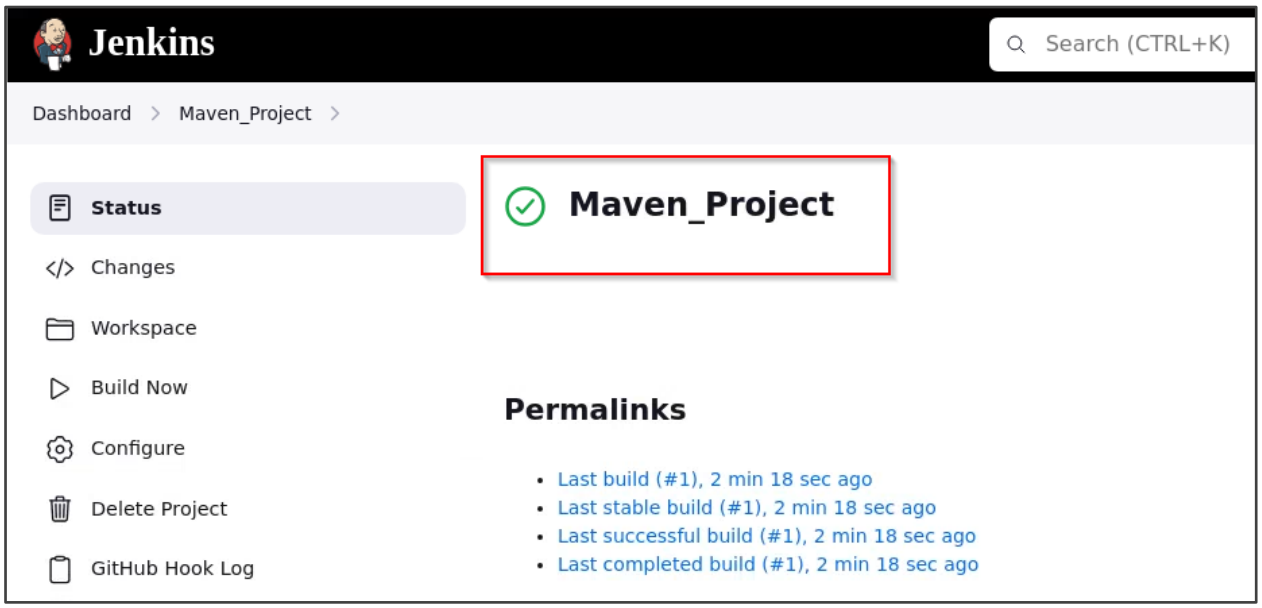


4.6 Click on **Build Now** to view the build results

4.7 Click on **trend** in the **Build History** as shown in the screenshot below:



4.8 Click on **Status** to view the build logs



By following these steps, you have successfully installed the Maven plugin in Jenkins, making it easier to automate Maven-based build tasks within the Jenkins environment for smoother integration and workflow automation.