

Lab Exercise 7

Integrating Maven with Jenkins

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Batch 2 DevOps

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

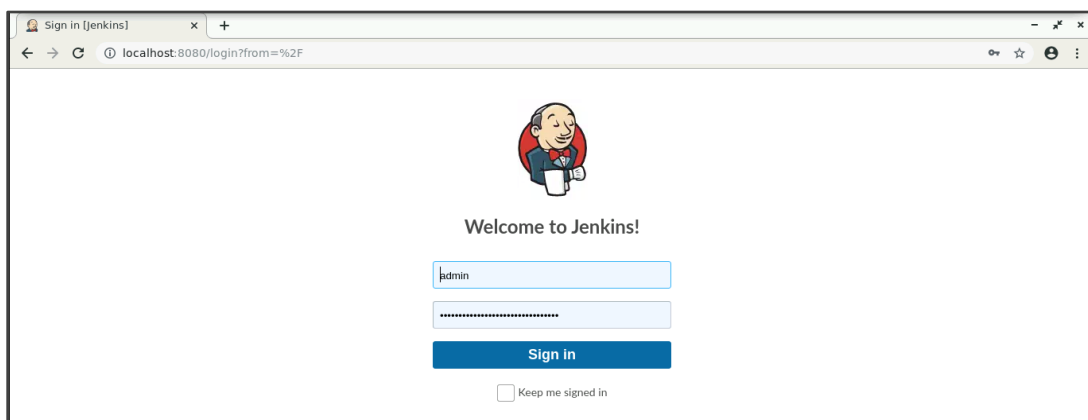
Prerequisites: None

Steps to be followed:

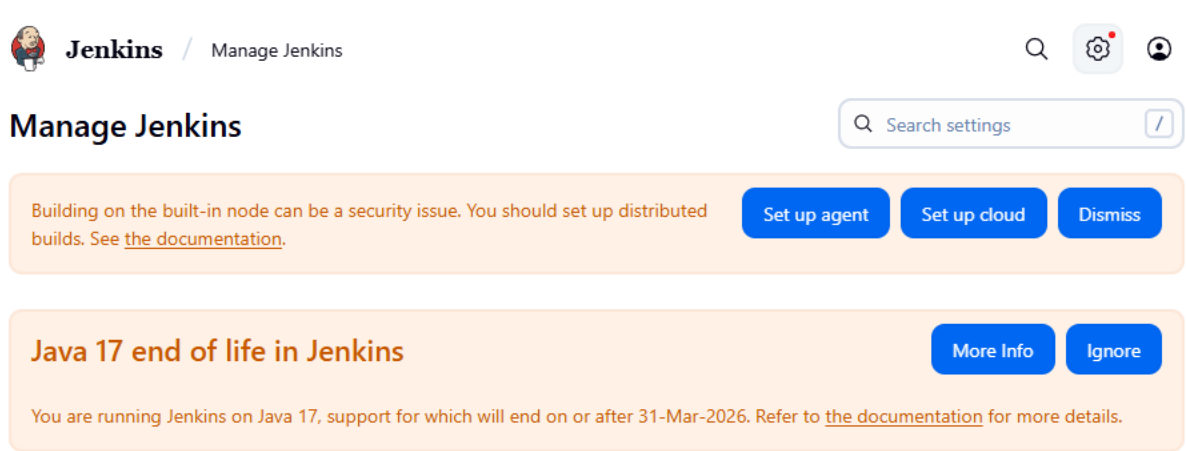
1. Install the Maven plugin
2. Set up Global Tool Configuration
3. Fork a sample repository
4. Integrate Maven with Jenkins

Step 1: Install the Maven plugin

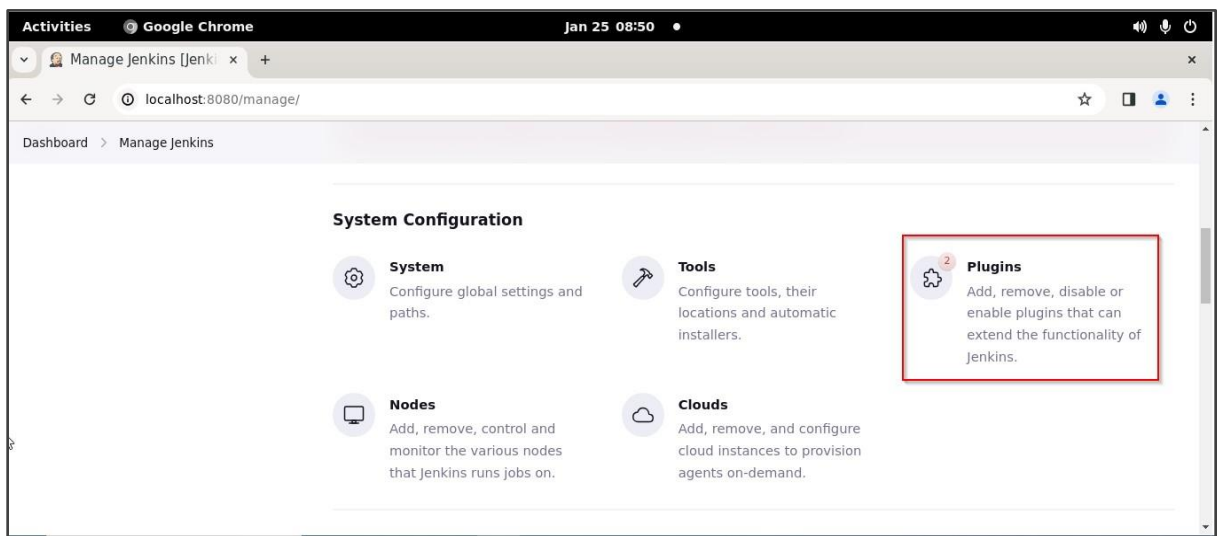
- 1.1 Open the browser, go to the Jenkins Dashboard by typing **localhost:8080** in your browser, provide the credentials, and click the **Sign in** button



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

Jenkins / Manage Jenkins / Plugins

Search:

Plugins

- Updates
- Available plugins
- Installed plugins
- Advanced settings

Install	Name ↓	Released	Health
<input type="checkbox"/>	Maven Integration 3.27 Build Tools This plugin provides a deep integration between Jenkins and Maven. It adds support for automatic triggers between projects depending on SNAPSHOTS as well as the automated configuration of various Jenkins publishers such as Junit.	15 days ago	100
<input type="checkbox"/>	Config File Provider 994.v3d4a_5fa_f353a_ Groovy-related External Site/Tool Integrations Maven Ability to provide configuration files (e.g. settings.xml for maven, XML, groovy, custom files,...) loaded through the UI which will be copied to the job workspace.	19 days ago	100

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

1.5 Use the following command to check the Maven version:

mvn -version

```

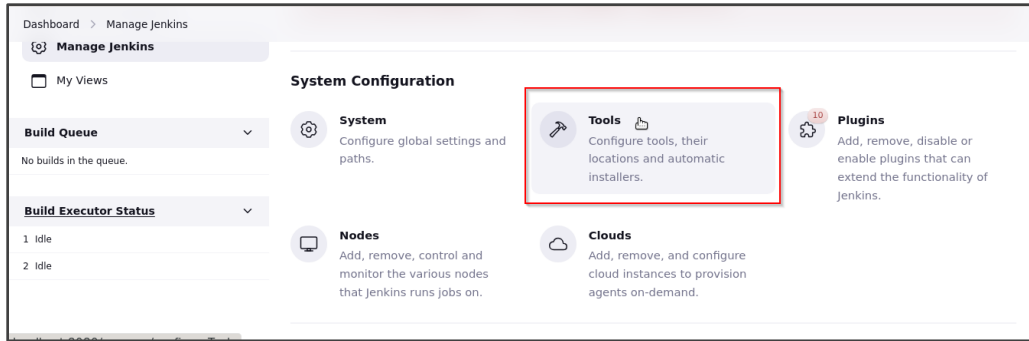
Windows PowerShell
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Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\ASUS> mvn -version
Apache Maven 3.9.11 (3e54c93a704957b63ee3494413a2b544fd3d825b)
Maven home: C:\Program Files\Apache\apache-maven-3.9.11
Java version: 17.0.16, vendor: Eclipse Adoptium, runtime: C:\Program Files\Eclipse Adoptium\jdk-17.0.16-hotspot
Default locale: en_IN, platform encoding: Cp1252
OS name: "windows 11", version: "10.0", arch: "amd64", family: "windows"
PS C:\Users\ASUS>
  
```

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

The screenshot shows the Jenkins 'Tools' configuration page. At the top, there are tabs for 'Ant installations' and 'Maven installations'. The 'Maven installations' tab is active. Below the tab, there is a button 'Add Maven' and a section titled 'Maven installations' with a dropdown menu and an 'Edited' status. A new Maven installation form is shown, with the following fields: 'Name' (Maven-3.9.11), 'MAVEN_HOME' (C:\Program Files\Apache\apache-maven-3.9.11), and a checked 'Install automatically' checkbox. Below the form, there is an 'Add Installer' dropdown menu. At the bottom of the page, there are 'Save' and 'Apply' buttons.