

LAB EXERCISE 7

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

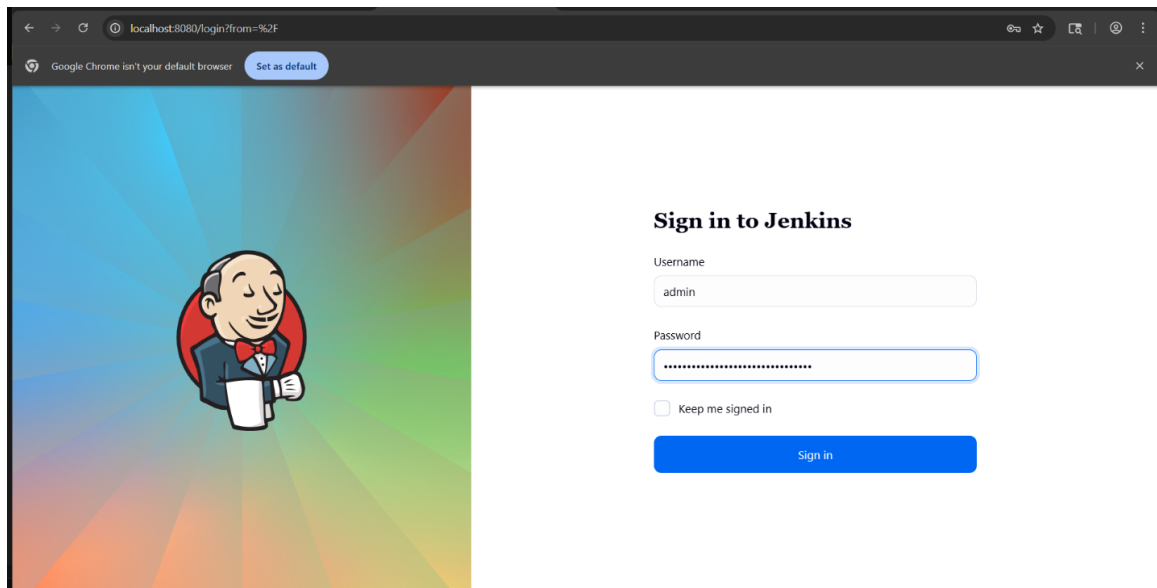
PREREQUISITES: NONE

STEPS TO BE FOLLOWED:

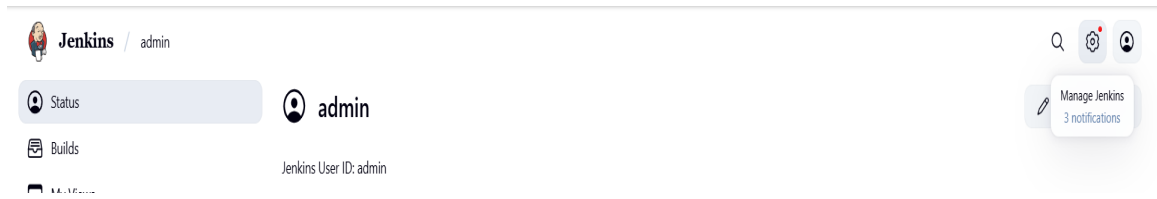
1. INSTALL THE MAVEN PLUGIN
2. SET UP GLOBAL TOOL CONFIGURATION
3. FORK A SAMPLE REPOSITORY
4. INTEGRATE MAVEN WITH JENKINS

STEP 1: INSTALL THE MAVEN PLUGIN

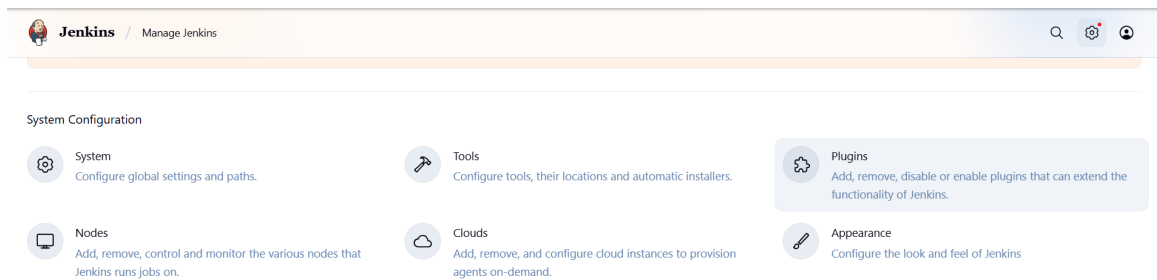
1. OPEN THE BROWSER, GO TO THE JENKINS DASHBOARD BY TYPING **LOCALHOST:8080** IN YOUR BROWSER, PROVIDE THE CREDENTIALS, AND CLICK THE **SIGN IN** BUTTON



2. CLICK ON THE **MANAGE JENKINS** OPTION AS SHOWN IN THE SCREENSHOT BELOW:



3. CLICK ON THE **PLUGINS** OPTION AS SHOWN IN THE SCREENSHOT BELOW:



4. CLICK ON **INSTALLED PLUGINS** TO VERIFY WHETHER THE **MAVEN INTEGRATION PLUGIN** HAS BEEN INSTALLED

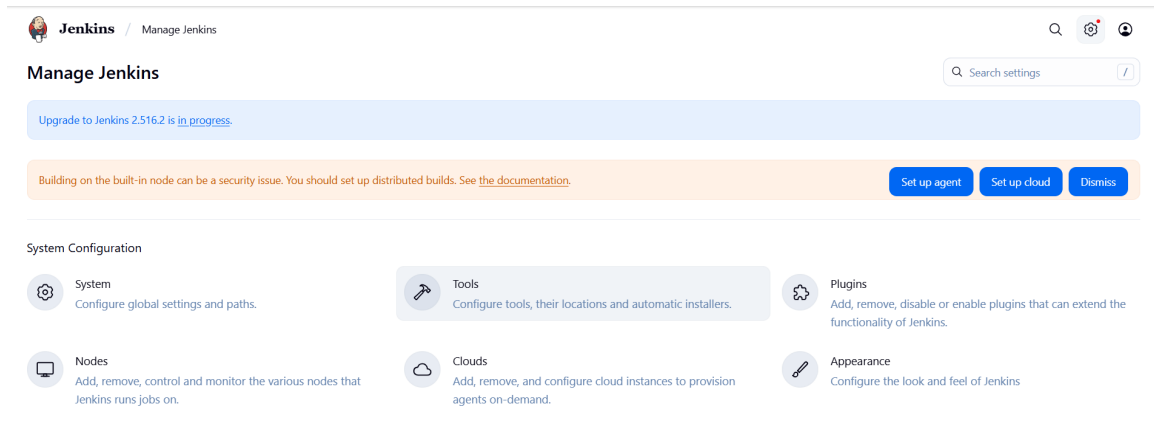


5. USE THE FOLLOWING COMMAND TO CHECK THE MAVEN VERSION:
MVN -VERSION

```
devank@DESKTOP-AULU5MH MINGW64 ~  
$ mvn -version  
Apache Maven Daemon (mvnd) 1.0.2 windows-amd64 native client (cccc1ec8a5b741c62b29f9fb04d37b1678a029bb)  
Terminal: org.jline.terminal.impl.jni.win.NativeWinSysTerminal  
Apache Maven 3.9.9 (8e8579a9e76f7d015ee5ec7bfc97d260186937)  
Maven home: C:\Users\devank\Desktop\maven\maven-mvnd-1.0.2-windows-amd64\mvn  
Java version: 23.0.1, vendor: Oracle Corporation, runtime: C:\Program Files\Java\jdk-23  
Default locale: en_IN, platform encoding: UTF-8  
OS name: "windows 11", version: "10.0", arch: "amd64", family: "windows"
```

STEP 2: SET UP GLOBAL TOOL CONFIGURATION

1. GO TO THE JENKINS DASHBOARD, CLICK ON **MANAGE JENKINS**, AND THEN SELECT **TOOLS** FROM THE LIST OF OPTIONS



The screenshot shows the Jenkins 'Manage Jenkins' interface. At the top, there's a header with the Jenkins logo and 'Manage Jenkins' text. Below this is a search bar and a notification bar. The main content area is titled 'System Configuration' and contains several icons for different settings: System, Tools, Plugins, Nodes, Clouds, and Appearance. The 'Tools' icon is highlighted, indicating it's the selected option.

Jenkins / Manage Jenkins

Manage Jenkins

Upgrade to Jenkins 2.516.2 is in progress.

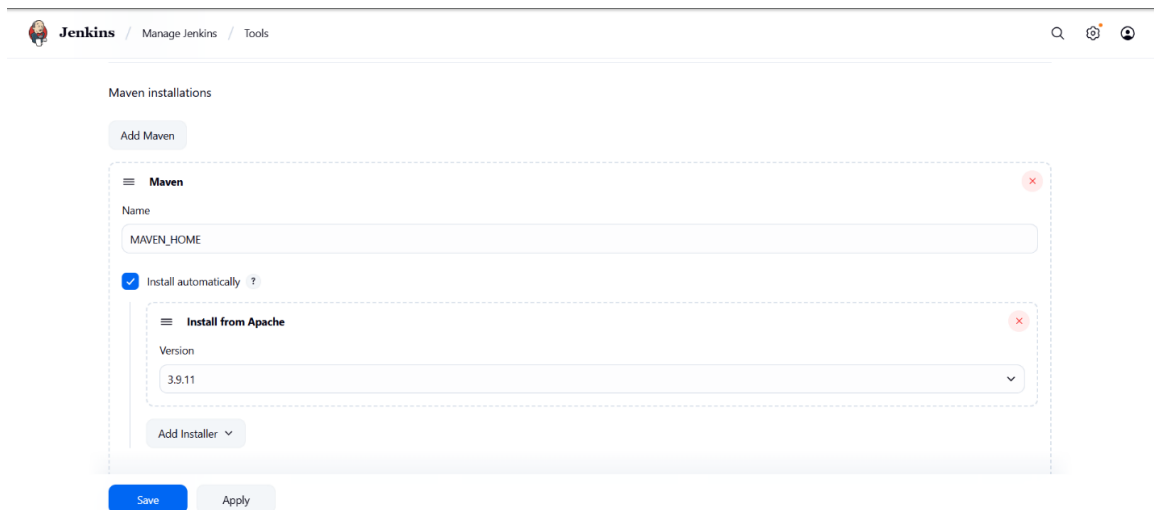
Building on the built-in node can be a security issue. You should set up distributed builds. See the documentation.

Set up agent Set up cloud Dismiss

System Configuration

- System**
Configure global settings and paths.
- Tools**
Configure tools, their locations and automatic installers.
- Plugins**
Add, remove, disable or enable plugins that can extend the functionality of Jenkins.
- Nodes**
Add, remove, control and monitor the various nodes that Jenkins runs jobs on.
- Clouds**
Add, remove, and configure cloud instances to provision agents on-demand.
- Appearance**
Configure the look and feel of Jenkins

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 'Maven installations' configuration page in Jenkins. It features a form for adding a new Maven installation. The form includes a text input for 'Name' (set to 'MAVEN_HOME'), a checked checkbox for 'Install automatically', and a section for 'Install from Apache' with a 'Version' dropdown (set to '3.9.11'). There are 'Add Maven' and 'Add Installer' buttons, and 'Save' and 'Apply' buttons at the bottom.

Jenkins / Manage Jenkins / Tools

Maven installations

Add Maven

Maven

Name
MAVEN_HOME

☒ Install automatically ?

Install from Apache

Version
3.9.11

Add Installer

Save Apply