

Installing Tools In Jenkins

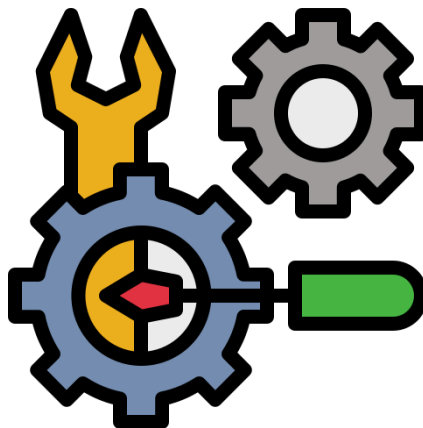


Installing Tools in Jenkins refers to setting up necessary software like build tools, testing frameworks, and analysis plugins required for the CI/CD pipeline.

Jenkins provides a convenient way to manage these tools:

- 1. Global Tool Configuration:** In Jenkins, you can install and configure build tools like Maven, Gradle, JDK, and Git directly from the Global Tool Configuration menu. This ensures that Jenkins jobs have access to these tools without needing to install them manually on the machine.
- 2. Plugins:** Jenkins offers a wide range of plugins to extend its functionality, such as SonarQube for code analysis, Checkstyle for coding standards, or Docker for container management. These can be installed via the Plugin Manager.
- 3. Tool Versions:** Jenkins allows you to install multiple versions of the same tool (e.g., different JDK or Maven versions) and configure jobs to use a specific version as needed.

By installing and managing these tools within Jenkins, you streamline the pipeline setup and ensure consistency across jobs.



Let's Get Started 🙌

←

→

↻

⚠ Not Secure

54.161.226.94:8080


🔍

☆

🔒 Incognito

Finish update

📁 All Bookmarks

 **Jenkins**

🔍 Search (⌘+K)

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🔔 1

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Dashboard >

+

New Item

 Build History

 Manage Jenkins

 My Views

Build Queue

⌵

No builds in the queue.

Build Executor Status

⌵

1 Idle

2 Idle

✎ Add description

Welcome to Jenkins!

This page is where your Jenkins jobs will be displayed. To get started, you can set up distributed builds or start building a software project.

Start building your software project

Create a job

+

Set up a distributed build

Set up an agent

🖥

Configure a cloud

☁

Learn more about distributed builds

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REST API

Jenkins 2.462.2

Click on Manage Jenkins then click on Tools.

The screenshot shows the Jenkins web interface in a browser. The address bar indicates the URL is 54.161.226.94:8080/manage/. The Jenkins logo and a search bar are at the top. The left sidebar contains navigation links: New Item, Build History, Manage Jenkins (selected), and My Views. Below these are two expandable sections: Build Queue (showing 'No builds in the queue.') and Build Executor Status (showing two 'Idle' executors). The main content area is titled 'Manage Jenkins' and features a search bar for settings. Under the 'System Configuration' heading, there are six configuration options: System (global settings), Plugins (manage plugins), Clouds (configure cloud instances), Tools (configure tools and installers), Nodes (manage nodes), and Appearance (configure look and feel). The 'Tools' option is highlighted with a light blue background.

→ To access **Manage Jenkins**, you need administrative privileges, as this option is only available to users with admin rights. This section provides full control over Jenkins configuration, including plugin management, security settings, and system maintenance tasks.

Start configuring the JDK (Java Development Kit) settings for Jenkins, which is crucial for building and running Java-based projects. You can add a new JDK installation by providing a name (in this case, "OracleJDK11") and specifying the `JAVA_HOME` path, where the JDK is installed on your system.

The **"Install automatically"** option allows Jenkins to automatically download and install the JDK if it's not already present on the server. However, if you have JDK installed manually, leave this unchecked and provide the correct `JAVA_HOME` path.

Important Note: Ensure the name you give here (e.g., "OracleJDK11") is consistent with the name you'll reference in your Jenkins jobs. This way, when a job runs, Jenkins will use the correct JDK version for builds or tests.

Dashboard > Manage Jenkins > Tools

Use default maven global settings

JDK installations

Add JDK

≡ JDK

Name

OracleJDK11

JAVA_HOME

☐ Install automatically ?

Add JDK

Save Apply

Copy the Path.

```
AWS — root@ip-172-31-82-48: ~ — ssh -i Jenkins_Key.pem ubuntu@ec2-54-161-226-94.com...
ubuntu@ip-172-31-82-48:~$ sudo -i
root@ip-172-31-82-48:~# ls /usr/lib/jvm/
java-1.11.0-openjdk-amd64  java-11-openjdk-amd64  openjdk-11
root@ip-172-31-82-48:~# /usr/lib/jvm/java-1.11.0-openjdk-amd64
```

Paste the Path.

The screenshot shows the Jenkins web interface in an Incognito browser window. The address bar shows the URL `54.161.226.94:8080/manage/configureTools/`. The breadcrumb navigation is `Dashboard > Manage Jenkins > Tools`. There are two dropdown menus at the top: "Use default maven settings" and "Default global settings provider" (set to "Use default maven global settings"). Under the "JDK installations" section, there is an "Add JDK" button. A modal window is open for adding a new JDK. It has a title bar "JDK" with a close button. The "Name" field contains "OracleJDK11". The "JAVA_HOME" field contains the path `/usr/lib/jvm/java-1.11.0-openjdk-amd64`. There is an unchecked checkbox for "Install automatically". At the bottom of the modal are "Save" and "Apply" buttons.

Dashboard > Manage Jenkins > Tools

Use default maven settings

Default global settings provider

Use default maven global settings

JDK installations

Add JDK

JDK

Name

OracleJDK11

JAVA_HOME

/usr/lib/jvm/java-1.11.0-openjdk-amd64

☐ Install automatically

Save Apply

Install JDK-8.

```
AWS — root@ip-172-31-82-48: ~ — ssh -i Jenkins_Key.pem ubuntu@ec2-54-161-226-94.compute-1.a...
root@ip-172-31-82-48:~# apt update > /dev/null

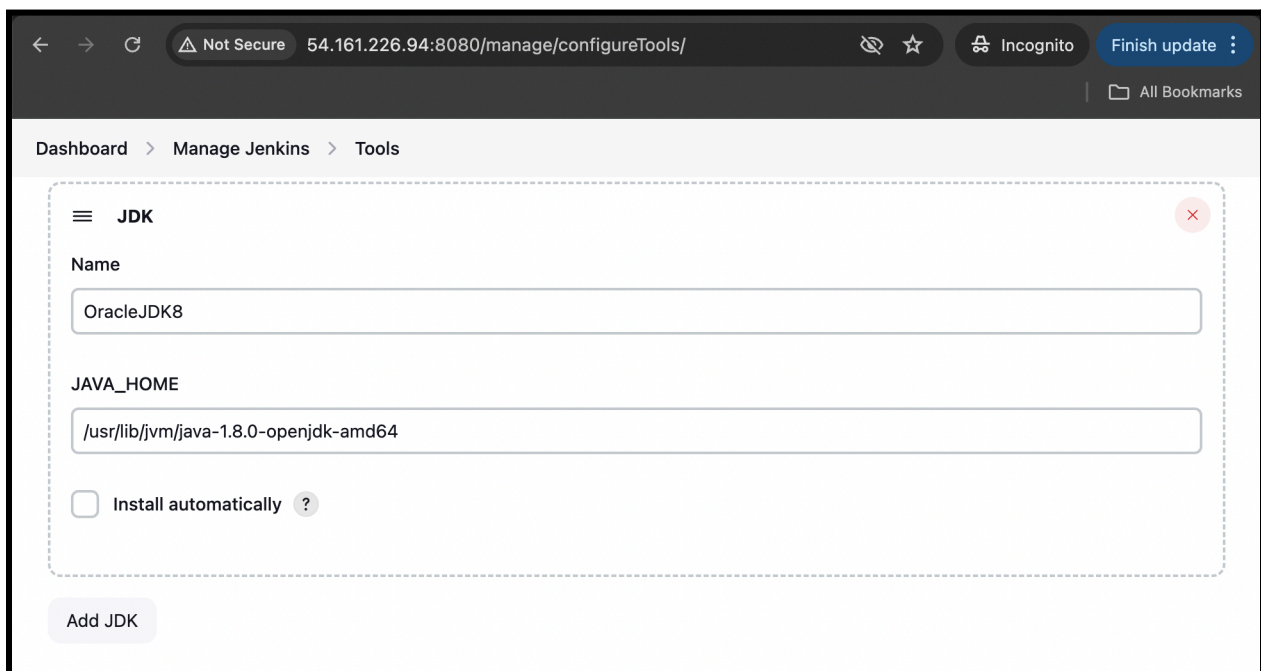
WARNING: apt does not have a stable CLI interface. Use with caution
in scripts.

root@ip-172-31-82-48:~# apt install openjdk-8-jdk -y
```

Copy the path.

```
AWS — root@ip-172-31-82-48: ~ — ssh -i Jenkins_Key.pem ubuntu@ec2-54-161-226-94.compute-1.a...
root@ip-172-31-82-48:~# ls /usr/lib/jvm/
java-1.11.0-openjdk-amd64  java-11-openjdk-amd64  openjdk-11
java-1.8.0-openjdk-amd64  java-8-openjdk-amd64
root@ip-172-31-82-48:~# /usr/lib/jvm/java-1.8.0-openjdk-amd64
```

Paste the Path.



The screenshot shows the Jenkins web interface in a browser. The address bar indicates the URL is `54.161.226.94:8080/manage/configureTools/`. The page title is "JDK". The "Name" field contains "OracleJDK8". The "JAVA_HOME" field contains the path `/usr/lib/jvm/java-1.8.0-openjdk-amd64`. There is an unchecked checkbox for "Install automatically" with a help icon. At the bottom, there is an "Add JDK" button.

Dashboard > Manage Jenkins > Tools

JDK

Name

OracleJDK8

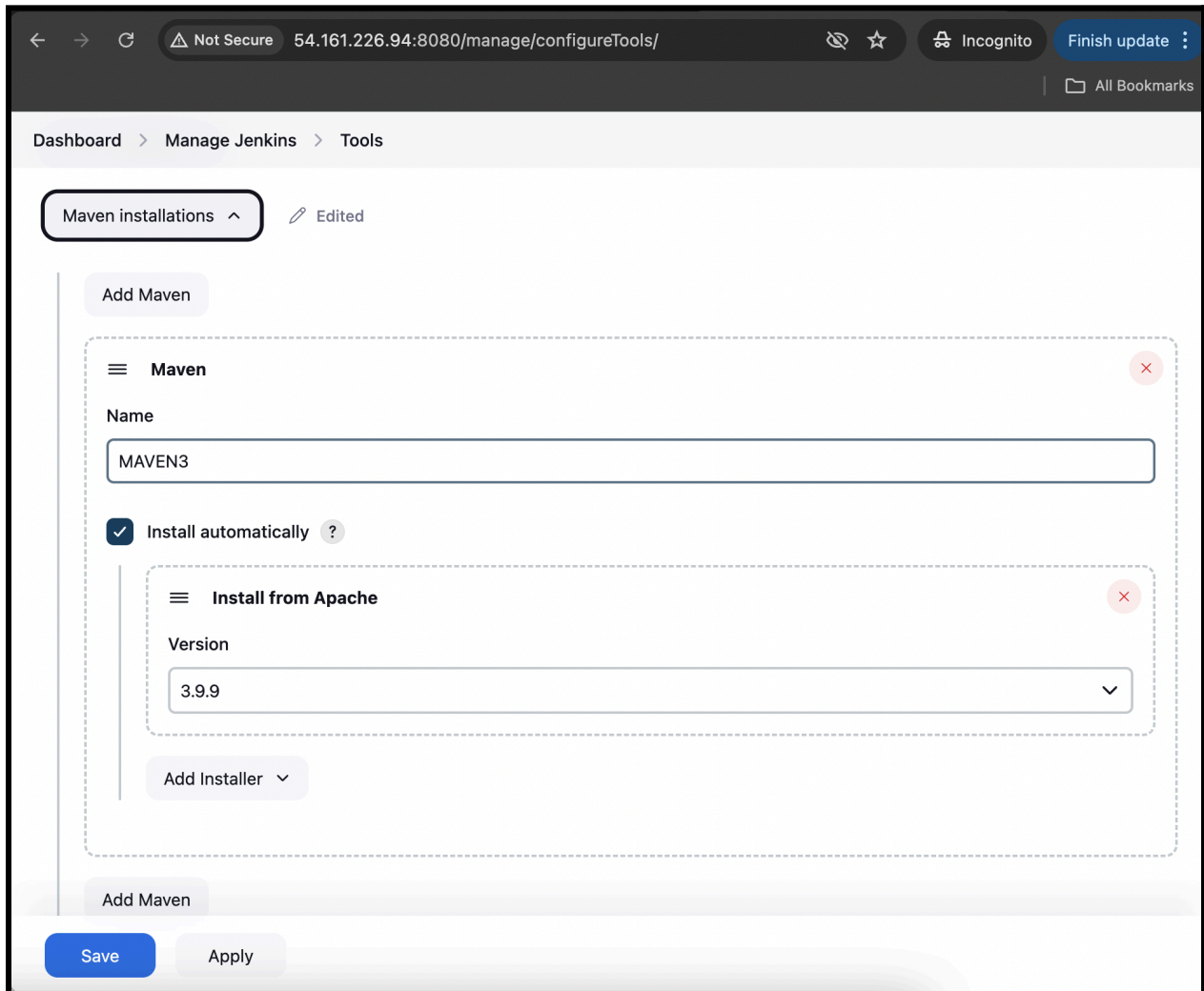
JAVA_HOME

/usr/lib/jvm/java-1.8.0-openjdk-amd64

☐ Install automatically ?

Add JDK

Now add MAVEN.



The screenshot shows the Jenkins web interface in an Incognito browser window. The address bar displays the URL `54.161.226.94:8080/manage/configureTools/`. The breadcrumb navigation shows `Dashboard > Manage Jenkins > Tools`. The main section is titled "Maven installations" and includes an "Add Maven" button. A form for adding a new Maven installation is visible, with the following fields and options:

- Name:** A text input field containing the value "MAVEN3".
- Install automatically:** A checkbox that is checked.
- Install from Apache:** A sub-section containing a "Version" dropdown menu with the value "3.9.9" selected.

At the bottom of the form, there is an "Add Installer" button with a dropdown arrow. Below the form, there are two buttons: "Save" (in blue) and "Apply".

Click Save.

Note: Git comes pre-installed on Ubuntu by default. For other operating systems, you'll need to install Git manually.

