

## MAVEN

1. Git Bash
2. Github
3. Gitlab
4. Jenkins
5. Maven
6. Dockers
7. Ansible

Pythoon , html, java files

<https://maven.apache.org/download.cgi>

The screenshot shows the Maven download page with a sidebar on the left containing links like 'What is Maven?', 'Features', 'Installation', 'Downloads', 'Use', 'Release Notes', 'What's new in Maven 4?', 'Maven Daemon', 'DOCUMENTATION', 'Maven Plugins', 'Maven Extensions', 'Maven Tools', 'Index (category)', 'User Centre', 'Plugin Developer Centre', 'Maven Repository Centre', 'Maven Developer Centre', 'Books and Resources', 'Security', 'COMMUNITY', 'Community Overview', 'Project Roles', 'How to Contribute', 'Getting Help', 'Issue Management', 'Getting Maven Source', and 'The Maven Team'. The main content area is titled 'System Requirements' and lists requirements for Java Development Kit (JDK), Memory, Disk, and Operating System. Below this is a 'Files' section with a table of download links, checksums, and signatures for binary tar.gz, binary zip, source tar.gz, and source zip archives. A list of links for release notes, source code, and license is also provided. The 'Maven Daemon' section is partially visible at the bottom.

### System Requirements

**Java Development Kit (JDK)** Maven 3.9+ requires JDK 8 or above to execute. It still allows you to build against 1.3 and other JDK versions [by using toolchains](#).

**Memory** No minimum requirement

**Disk** Approximately 10MB is required for the Maven installation itself. In addition to that, disk space will be used for your local Maven repository. The size of your local repository will vary depending on usage but expect at least 500MB.

**Operating System** No minimum requirement. Start up scripts are included as shell scripts (tested on many Unix flavors) and Windows batch files.

### Files

Maven is distributed in several formats for your convenience. Simply pick a ready-made binary distribution archive and follow the [installation instructions](#). Use a source archive if you intend to build Maven yourself.

In order to guard against corrupted downloads/installations, it is highly recommended to [verify the signature](#) of the release bundles against the public [KEYS](#) used by the Apache Maven developers.

	Link	Checksums	Signature
Binary tar.gz archive	<a href="#">apache-maven-3.9.9-bin.tar.gz</a>	<a href="#">apache-maven-3.9.9-bin.tar.gz.sha512</a>	<a href="#">apache-maven-3.9.9-bin.tar.gz.asc</a>
Binary zip archive	<a href="#">apache-maven-3.9.9-bin.zip</a>	<a href="#">apache-maven-3.9.9-bin.zip.sha512</a>	<a href="#">apache-maven-3.9.9-bin.zip.asc</a>
Source tar.gz archive	<a href="#">apache-maven-3.9.9-src.tar.gz</a>	<a href="#">apache-maven-3.9.9-src.tar.gz.sha512</a>	<a href="#">apache-maven-3.9.9-src.tar.gz.asc</a>
Source zip archive	<a href="#">apache-maven-3.9.9-src.zip</a>	<a href="#">apache-maven-3.9.9-src.zip.sha512</a>	<a href="#">apache-maven-3.9.9-src.zip.asc</a>

- 3.9.9 Release Notes and Release Reference Documentation
- latest source code from source repository
- Distributed under the Apache License, version 2.0
- other:
  - All current release sources (plugins, shared libraries,...) available at <https://downloads.apache.org/maven/>

### Maven Daemon

Files -> Binary Zip Archive → Link

Extract this and save it to c drive add to environment variable

Check in cmd

Write command : mvn -version

Dashboard > Manage Jenkins > Tools

Maven installations

Add Maven

≡ Maven

Name

❗ Required

MAVEN\_HOME

☐ Install automatically ?

Add Maven

Save

Apply

Jenkins 2.492.2

Dashboard > Manage Jenkins > Tools

Maven installations

Add Maven

≡ Maven

Name

Maven

☒ Install automatically ?

≡ Install from Apache

Version

3.9.9

Add Installer ▾

Add Maven

Save

Apply

Remove the tick marks

Dashboard > Manage Jenkins > Plugins

Plugins

Updates18

Available plugins

Installed plugins

Advanced settings

Search installed plugins

Name	Enabled
<b>Ant Plugin</b> 513.vde9e7b_a_0da_0f Adds Apache Ant support to Jenkins <a href="#">Report an issue with this plugin</a>	<input checked="" type="checkbox"/>
<b>Apache HttpComponents Client 4.x API Plugin</b> 4.5.14-269.vfa_2321039a_83 Bundles Apache HttpComponents Client 4.x and allows it to be used by Jenkins plugins. <a href="#">Report an issue with this plugin</a>	<input checked="" type="checkbox"/>
<b>ASM API</b> 9.7.1-97.v4cc844130d97 This plugin provides the <b>ASM</b> APIs (v9.7.1) for other plugins. <a href="#">Report an issue with this plugin</a>	<input checked="" type="checkbox"/>
<b>Bootstrap 5 API Plugin</b> 5.3.3-2 Provides <b>Bootstrap 5</b> for Jenkins Plugins. Bootstrap is (according to their self-perception) the world's most popular front-end component library to build responsive, mobile-first projects on the web. <a href="#">Report an issue with this plugin</a>	<input checked="" type="checkbox"/>
<b>bouncycastle API Plugin</b> 2.30.1.80-256.vf98926042a_9b_ This plugin provides a stable API to Bouncy Castle related tasks. <a href="#">Report an issue with this plugin</a>	<input checked="" type="checkbox"/>
<b>Branch API Plugin</b> 2.1214.v3f652804588d This plugin provides an API for multiple branch based projects.	<input checked="" type="checkbox"/>

localhost:8080/manage/pluginManager/33°C SmokeENG IN3:29 PM 27-Mar-25

## Install Maven Plugins

Dashboard > Manage Jenkins > Plugins

Plugins

Updates18

Available plugins

Installed plugins

Advanced settings

Search maven in

Install

Refresh

Install	Name	Released
<input checked="" type="checkbox"/>	<b>Maven Integration</b> 3.25 <a href="#">Build Tools</a> 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.	1 mo 18 days ago
<input type="checkbox"/>	<b>Pipeline Maven Integration</b> 1508.v347c4b_692202 <a href="#">pipeline</a> <a href="#">Maven</a> This plugin provides integration with Pipeline, configures maven environment to use within a pipeline job by calling sh mvn or bat mvn. The selected maven installation will be configured and prepended to the path.	16 days ago
<input type="checkbox"/>	<b>Maven Info</b> 0.3.2 <a href="#">List view columns</a> <a href="#">Maven</a> Adds columns configurable in views to show info about Maven jobs.	4 mo 22 days ago
<input type="checkbox"/>	<b>Maven Invoker</b> 2.5 <a href="#">External Site/Tool Integrations</a> <a href="#">Maven</a> This plugin will parse result files produced by the maven-invoker-plugin	2 yr 1 mo ago


## Create Project

Dashboard > All > New Item


## New Item

Enter an item name


Select an item type




**Freestyle project**  
 Classic, general-purpose job type that checks out from up to one SCM, executes build steps serially, followed by post-build steps like archiving artifacts and sending email notifications.




**Maven project**  
 Build a maven project. Jenkins takes advantage of your POM files and drastically reduces the configuration.



**Pipeline**  
 Orchestrates long-running activities that can span multiple build agents. Suitable for building pipelines (formerly known as workflows) and/or organizing complex activities that do not easily fit in free-style job type.



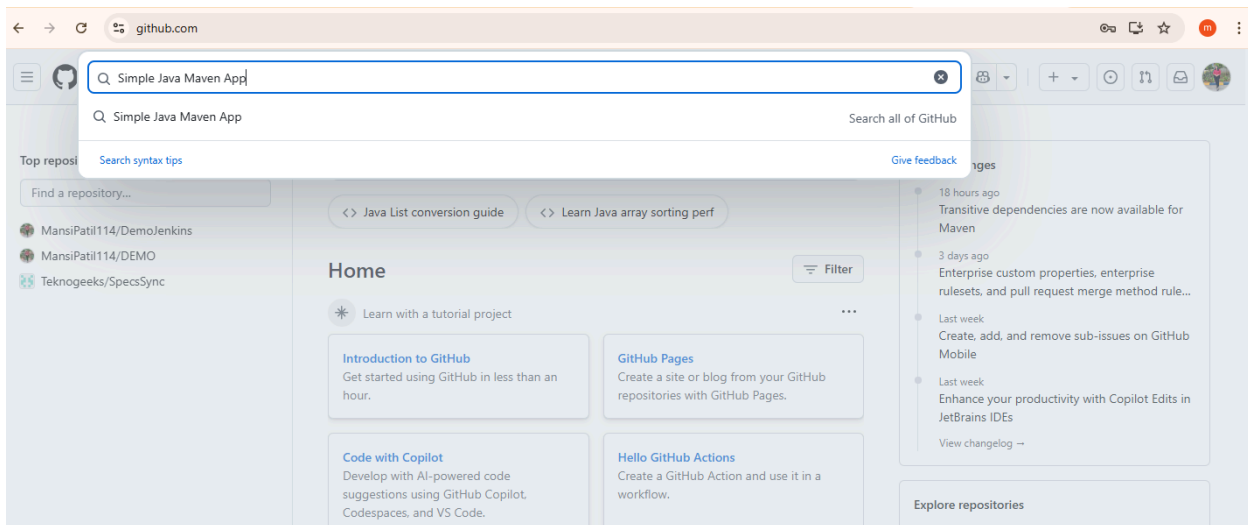
**Multi-configuration project**  
 Suitable for projects that need a large number of different configurations, such as testing on multiple environments, platform-specific builds, etc.



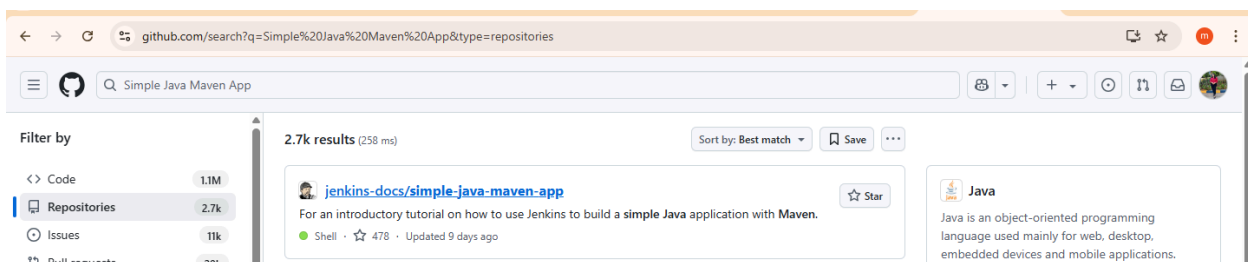
**Folder**

OK

## GITHUB



.Slect it



## Create fork

The screenshot shows the GitHub interface for creating a new fork. At the top, the repository path is 'jenkins-docs / simple-java-maven-app'. Below the navigation bar, the title 'Create a new fork' is displayed. A brief explanation states: 'A fork is a copy of a repository. Forking a repository allows you to freely experiment with changes without affecting the original project. [View existing forks.](#)' A note indicates 'Required fields are marked with an asterisk (\*)'.

The form contains the following fields and options:

- Owner \***: A dropdown menu showing 'MansiPatil114'.
- Repository name \***: A text input field containing 'simple-java-maven-app'. Below it, a green checkmark and text state 'simple-java-maven-app is available.'
- Description (optional)**: A text area with the placeholder text 'For an introductory tutorial on how to use Jenkins to build a simple Java application with Maven.'
- Copy the master branch only**: A checked checkbox. Below it, text says 'Contribute back to jenkins-docs/simple-java-maven-app by adding your own branch. [Learn more.](#)'
- Information icon**: A small circle with an 'i' icon, followed by the text 'You are creating a fork in your personal account.'

A green 'Create fork' button is located at the bottom right of the form.

## Added to my repository

## Clone to it to this device for local storage

```
C:\>git clone https://github.com/MansiPatil114/simple-java-maven-app.git
Cloning into 'simple-java-maven-app'...
remote: Enumerating objects: 241, done.
Remote: Total 241 (delta 0), reused 0 (delta 0), pack-reused 241 (from 1)
Receiving objects: 100% (241/241), 65.37 KiB | 5.45 MiB/s, done.
Resolving deltas: 100% (79/79), done.

C:\>
```

## Build Step 1:

```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

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

PS C:\Users\Admin> mvn --version
Apache Maven 3.9.9 (8e8579a9e76f7d015ee5ec7bfc9d97d260186937)
Maven home: C:\Program Files\APACHE\apache-maven-3.9.9
Java version: 17.0.12, vendor: Oracle Corporation, runtime: C:\Program Files\Java\jdk-17
Default locale: en_US, platform encoding: Cp1252
OS name: "windows 11", version: "10.0", arch: "amd64", family: "windows"
PS C:\Users\Admin> cd ..
PS C:\Users> cd ..
PS C:\> cd simple-java-maven-app
PS C:\simple-java-maven-app> mvn clean package
[INFO] Scanning for projects...
[INFO]
[INFO] -----< com.mycompany.app:my-app >-----
[INFO] Building my-app 1.0-SNAPSHOT
[INFO] from pom.xml
[INFO] -----[ jar ]-----
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-enforcer-plugin/3.5.0/maven-enforcer-plugin-3.5.0.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-enforcer-plugin/3.5.0/maven-enforcer-plugin-3.5.0.pom (8.1 kB at 51 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/enforcer/enforcer/3.5.0/enforcer-3.5.0.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/enforcer/enforcer/3.5.0/enforcer-3.5.0.pom (9.3 kB at 579 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-enforcer-plugin/3.5.0/maven-enforcer-plugin-3.5.0.jar (256 kB at 1.2 MB/s)
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-enforcer-plugin/3.5.0/maven-enforcer-plugin-3.5.0.jar (256 kB at 1.2 MB/s)
[INFO]
[INFO] T E S T S
[INFO]
[INFO] Running com.mycompany.app.AppTest
[INFO] Tests run: 2, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.041 s -- in com.mycompany.app.AppTest
[INFO] Results:
[INFO]
[INFO] Tests run: 2, Failures: 0, Errors: 0, Skipped: 0
[INFO]
[INFO] --- jar:3.4.2:jar (default-jar) @ my-app ---
[INFO] Building jar: C:\simple-java-maven-app\target\my-app-1.0-SNAPSHOT.jar
[INFO]
[INFO] BUILD SUCCESS
[INFO]
[INFO] Total time: 7.424 s
[INFO] Finished at: 2025-03-27T15:42:37+05:30
[INFO]
PS C:\simple-java-maven-app> |
```

```
form-engine-1.12.1.jar (256 kB at 1.2 MB/s)
Downloaded from central: https://repo.maven.apache.org/maven2/org/junit/platform/junit-platform-launcher/1.12.1/junit-platform-launcher-1.12.1.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/junit/platform/junit-platform-launcher/1.12.1/junit-platform-launcher-1.12.1.pom (3.0 kB at 151 kB/s)
Downloaded from central: https://repo.maven.apache.org/maven2/org/junit/platform/junit-platform-launcher/1.12.1/junit-platform-launcher-1.12.1.jar (208 kB at 1.6 MB/s)
Downloaded from central: https://repo.maven.apache.org/maven2/org/junit/platform/junit-platform-launcher/1.12.1/junit-platform-launcher-1.12.1.jar (208 kB at 1.6 MB/s)
[INFO]
[INFO] T E S T S
[INFO]
[INFO] Running com.mycompany.app.AppTest
[INFO] Tests run: 2, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.041 s -- in com.mycompany.app.AppTest
[INFO] Results:
[INFO]
[INFO] Tests run: 2, Failures: 0, Errors: 0, Skipped: 0
[INFO]
[INFO] --- jar:3.4.2:jar (default-jar) @ my-app ---
[INFO] Building jar: C:\simple-java-maven-app\target\my-app-1.0-SNAPSHOT.jar
[INFO]
[INFO] BUILD SUCCESS
[INFO]
[INFO] Total time: 7.424 s
[INFO] Finished at: 2025-03-27T15:42:37+05:30
[INFO]
PS C:\simple-java-maven-app> |
```

## New Item

Enter an item name

MavenProject36

Select an item type



### Freestyle project

Classic, general-purpose job type that checks out from up to one SCM, executes build steps serially, followed by post-build steps like archiving artifacts and sending email notifications.



### Maven project

Build a maven project. Jenkins takes advantage of your POM files and drastically reduces the configuration.



### Pipeline

Orchestrates long-running activities that can span multiple build agents. Suitable for building pipelines (formerly known as workflows) and/or organizing complex activities that do not easily fit in free-style job type.



### Multi-configuration project

Suitable for projects that need a large number of different configurations, such as testing on multiple environments, platform-specific builds, etc.



### Folder

OK

Dashboard > MavenProject36 > Configuration

## Configure

### General

### Source Code Management

### Triggers

### Environment

### Pre Steps

### Build

### Post Steps

### Build Settings

### Post-build Actions

☐ Execute concurrent builds if necessary

Advanced

### Source Code Management

Connect and manage your code repository to automatically pull the latest code for your builds.

☐ None

☒ Git

Repositories

Repository URL

https://github.com/MansiPatil14/sample-java-maven-app.git

Credentials

none

+ Add

Advanced

Add Repository

Branches to build

Branch Specifier (blank for 'any')

\*/master

Add Branch

Repository browser

(Auto)

Additional Behaviours

Add

### Triggers

Set up automated actions that start your build based on specific events, like code changes or scheduled times.

☒ Build whenever a `SNAPSHOT` dependency is built

☐ Schedule build when some upstream has no successful builds

☐ Trigger builds remotely (e.g., from scripts)

☐ Build after other projects are built

☐ Build periodically

Dashboard > MavenProject36 > Configuration

Configure

General

Source Code Management

Triggers

Environment

Pre Steps

Build

Post Steps

Build Settings

Post-build Actions

Build

Root POM ?  
pom.xml

Goals and options ?  
clean package

Advanced

Post Steps

☐ Run only if build succeeds

☐ Run only if build succeeds or is unstable

☒ Run regardless of build result  
Should the post-build steps run only for successful builds, etc.

Add post-build step

Save Apply

Dashboard > MavenProject36 > Configuration

Configure

General

Source Code Management

Triggers

Environment

Pre Steps

Build

Post Steps

Build Settings

Post-build Actions

Post Steps

☐ Run only if build succeeds

☐ Run only if build succeeds or is unstable

☒ Run regardless of build result  
Should the post-build steps run only for successful builds, etc.

Add post-build step

Build Settings

☐ E-mail Notification

Post-build Actions

Define what happens after a build completes, like sending notifications, archiving artifacts, or triggering other jobs.

Add post-build action

Save Apply

REST API Jenkins 2.492.2

Apply → Save → Build Now → COnsole Output



```
[INFO] Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/archiver/3.6.2/maven-archiver-3.6.2.jar (27 kB at 164 kB/s)
[INFO] Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/archiver/3.6.2/maven-archiver-3.6.2.jar (27 kB at 164 kB/s)
[INFO] Downloading from central: https://repo.maven.apache.org/maven2/com/github/luben/zstd-jni/1.5.5-11/zstd-jni-1.5.5-11.jar
[INFO] Downloaded from central: https://repo.maven.apache.org/maven2/org/iq80/snappy/snappy/0.4/snappy-0.4.jar (58 kB at 212 kB/s)
[INFO] Downloaded from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-archiver/4.9.2/plexus-archiver-4.9.2.jar (225 kB at 727 kB/s)
[INFO] Downloaded from central: https://repo.maven.apache.org/maven2/org/tukaani/xz/1.9/xz-1.9.jar (116 kB at 218 kB/s)
[INFO] Downloaded from central: https://repo.maven.apache.org/maven2/commons-codec/commons-codec/1.16.1/commons-codec-1.16.1.jar (365 kB at 166 kB/s)
[INFO] Downloaded from central: https://repo.maven.apache.org/maven2/com/github/luben/zstd-jni/1.5.5-11/zstd-jni-1.5.5-11.jar (6.8 MB at 1.1 MB/s)
[INFO] Building jar: C:\ProgramData\Jenkins\jenkins\workspace\MavenProject36\target\my-app-1.0-SNAPSHOT.jar
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 23.781 s
[INFO] Finished at: 2025-03-27T15:58:02+05:30
[INFO] -----
Waiting for Jenkins to finish collecting data
[JENKINS] Archiving C:\ProgramData\Jenkins\jenkins\workspace\MavenProject36\pom.xml to com.mycompany.app/my-app/1.0-SNAPSHOT/my-app-1.0-SNAPSHOT.pom
[JENKINS] Archiving C:\ProgramData\Jenkins\jenkins\workspace\MavenProject36\target\my-app-1.0-SNAPSHOT.jar to com.mycompany.app/my-app/1.0-SNAPSHOT/my-app-1.0-SNAPSHOT.jar
channel stopped
Finished: SUCCESS
```