

# **Experiment 6: Continuous Integration with Jenkins: Setting Up a CI Pipeline, Integrating Jenkins with Maven/Gradle, Running Automated Builds and Tests**



Prerequisite: Create “GitHub” account and install and configure “git” in local machine

## INSTALLATION OF GIT

Step 1: search for “install git” and click on download link

The screenshot shows a Google search results page for the query "install git". The search bar at the top contains "install git". Below the search bar, there are language and location settings in Kannada: ಎಲ್ಲಾ ವೆಡಿಯೋಗಳು ಬಿಲ್ಗಾಗಳು ಶಾಹಿರ್ಗಳು ಸುದ್ದಿ ವೇಬ್ ನಕ್ಷೆಗಳು :: ಇನ್‌ಪ್ರೈಸ್". The main search result is for "Git" from the website <https://git-scm.com>. The result includes a snippet: "1.5 Getting Started - Installing Git". It states: "The most official build is available for download on the Git website. Just go to <https://git-scm.com/download/win> and the download will start automatically." A red box highlights the "Downloads" section, which includes links for macOS, Windows, Linux/Unix, and a "Git logo". Below this, another result for "Git" shows a "Git - Downloading Package" section with a link to download the latest version for Windows.

Google search results for "install git":

- Git**  
<https://git-scm.com> · ಈ ಪ್ರಬಂಧನ್ಯಾ ಅನುವಾದಿಸಿ ·  
1.5 Getting Started - Installing Git  
The most official build is available for download on the Git website. Just go to <https://git-scm.com/download/win> and the download will start automatically.
- Downloads**  
Downloads. macOS · Windows · Linux/Unix · Older releases are available and the Git source repository is on GitHub.  
[Windows](#) [Linux/Unix](#) [macOS](#) [Git logo](#)
- Git**  
<https://git-scm.com> · ಈ ಪ್ರಬಂಧನ್ಯಾ ಅನುವಾದಿಸಿ ·  
Git - Downloading Package  
Download for Windows. Click here to download the latest (2.48.1) 64-bit version of Git for Windows.  
This is the most recent maintained build.  
[GUI Clients](#) [Book](#) [Community](#)

Bottom status bar:

- 9 30°C Sunny
- Search bar
- Icons for File Explorer, Paint, Edge, Chrome, Task View, Calendar, and Word
- Network, Battery, and Sound icons
- ENG US
- 14:34
- 07-03-2025

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## Step 2: Select OS for which git needs to be installed

The screenshot shows the official Git Downloads page at [git-scm.com/downloads](https://git-scm.com/downloads). The 'Downloads' section is highlighted with a red box. It contains three main download links: 'macOS', 'Windows', and 'Linux/Unix'. To the right of the 'Downloads' section is a large image of a computer monitor displaying the latest source release information: 'Latest source Release 2.48.1' and a 'Download for Windows' button.

**Downloads**

- macOS
- Windows
- Linux/Unix

Older releases are available and the Git source repository is on GitHub.

**GUI Clients**

Git comes with built-in GUI tools (`git-gui`, `gitk`), but there are several third-party tools for users looking for a platform-specific experience.

[View GUI Clients →](#)

**Logos**

Various Git logos in PNG (bitmap) and EPS (vector) formats are available for use in online and print projects.

[View Logos →](#)

**Git via Git**

If you already have Git installed, you can get the latest development version via Git itself:

```
git clone https://github.com/git/git
```

You can also always browse the current contents of the git repository using the [web interface](#).

At the bottom of the screen, the taskbar shows the date (07-03-2025), time (13:22), battery level (9%), weather (30°C, Sunny), and various system icons.

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### Step 3: select the installer which is appropriate for your system

The entire [Pro Git book](#) written by Scott Chacon and Ben Straub is available to [read online for free](#). Dead tree versions are available on [Amazon.com](#).

## Download for Windows

[Click here to download](#) the latest **2.48.1** 64-bit version of **Git for Windows**. This is the most recent [maintained build](#). It was released **22 days ago**, on 2025-02-13.

### Other Git for Windows downloads

[Standalone Installer](#)  
[32-bit Git for Windows Setup.](#)  
**64-bit Git for Windows Setup.**  
[Portable \("thumbdrive edition"\)](#)  
[32-bit Git for Windows Portable.](#)  
[64-bit Git for Windows Portable.](#)

**Using winget tool**  
Install [winget tool](#) if you don't already have it, then type this command in command prompt or Powershell.  
`winget install --id Git.Git -e --source winget`

The current source code release is version **2.48.1**. If you want the newer version, you can build it from the [source code](#).

**Now What?**  
Now that you have downloaded Git, it's time to start using it.

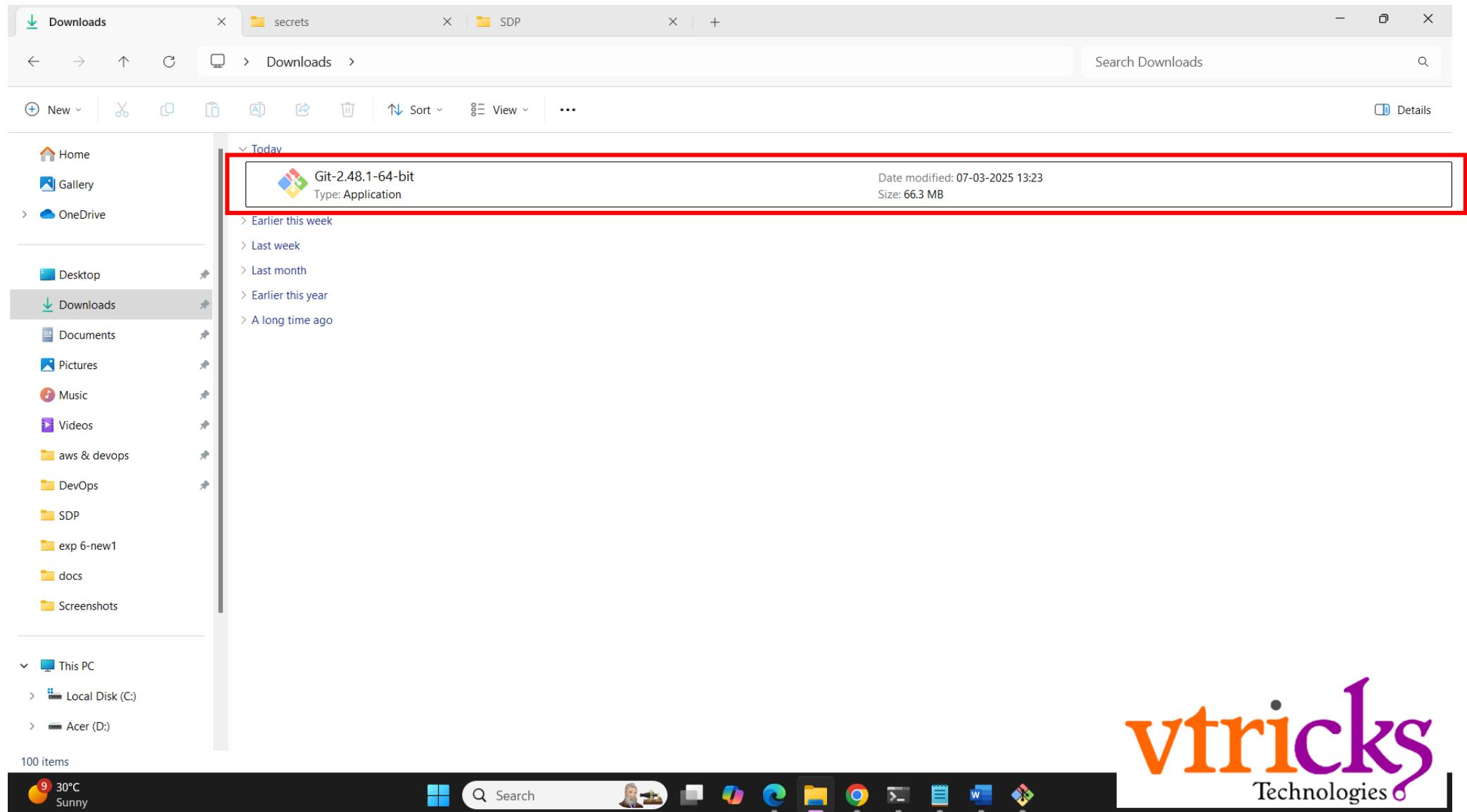
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9 30°C Sunny

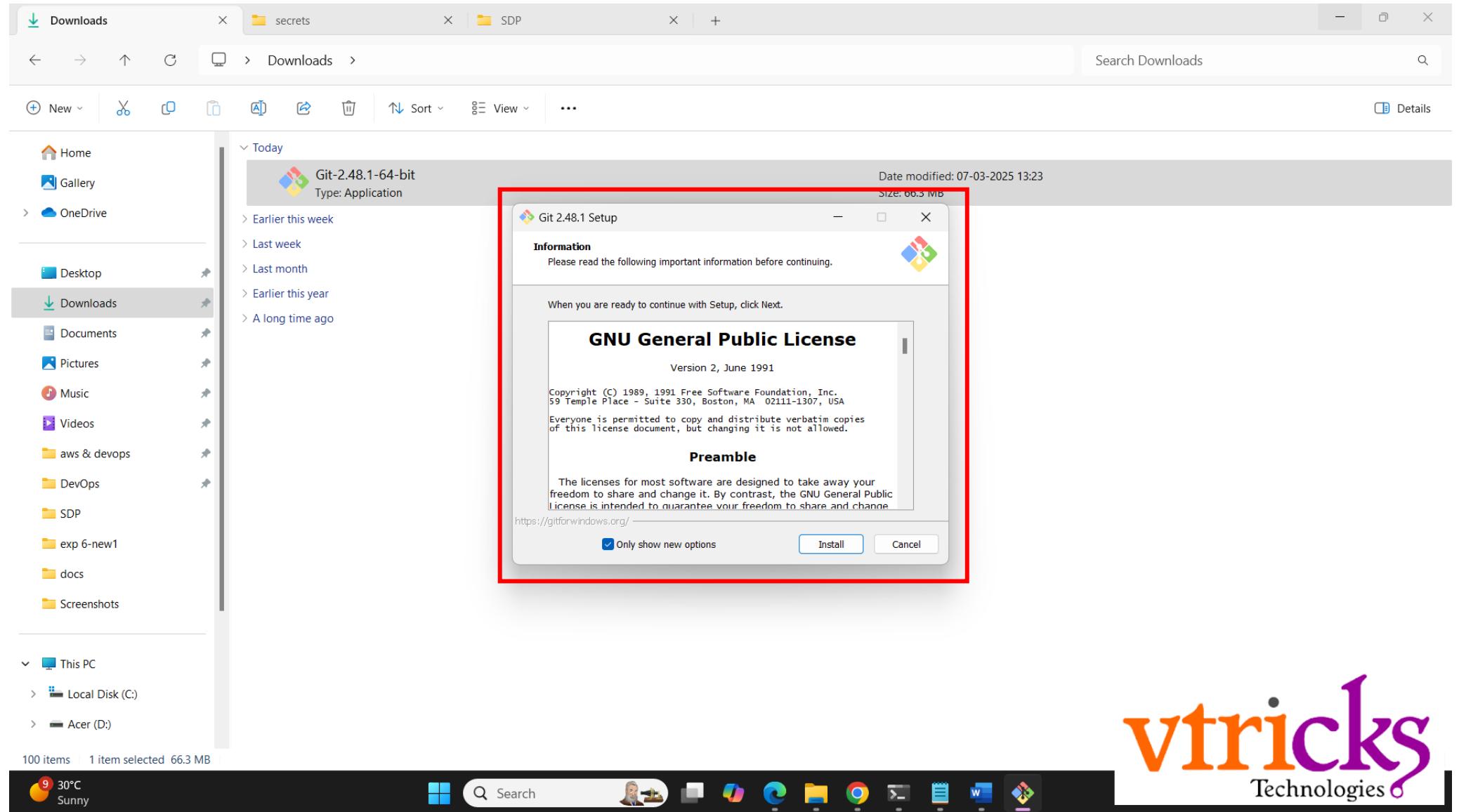
Search

13:22 07-03-2025

## Step 4: Double click on the downloaded file to begin with installation

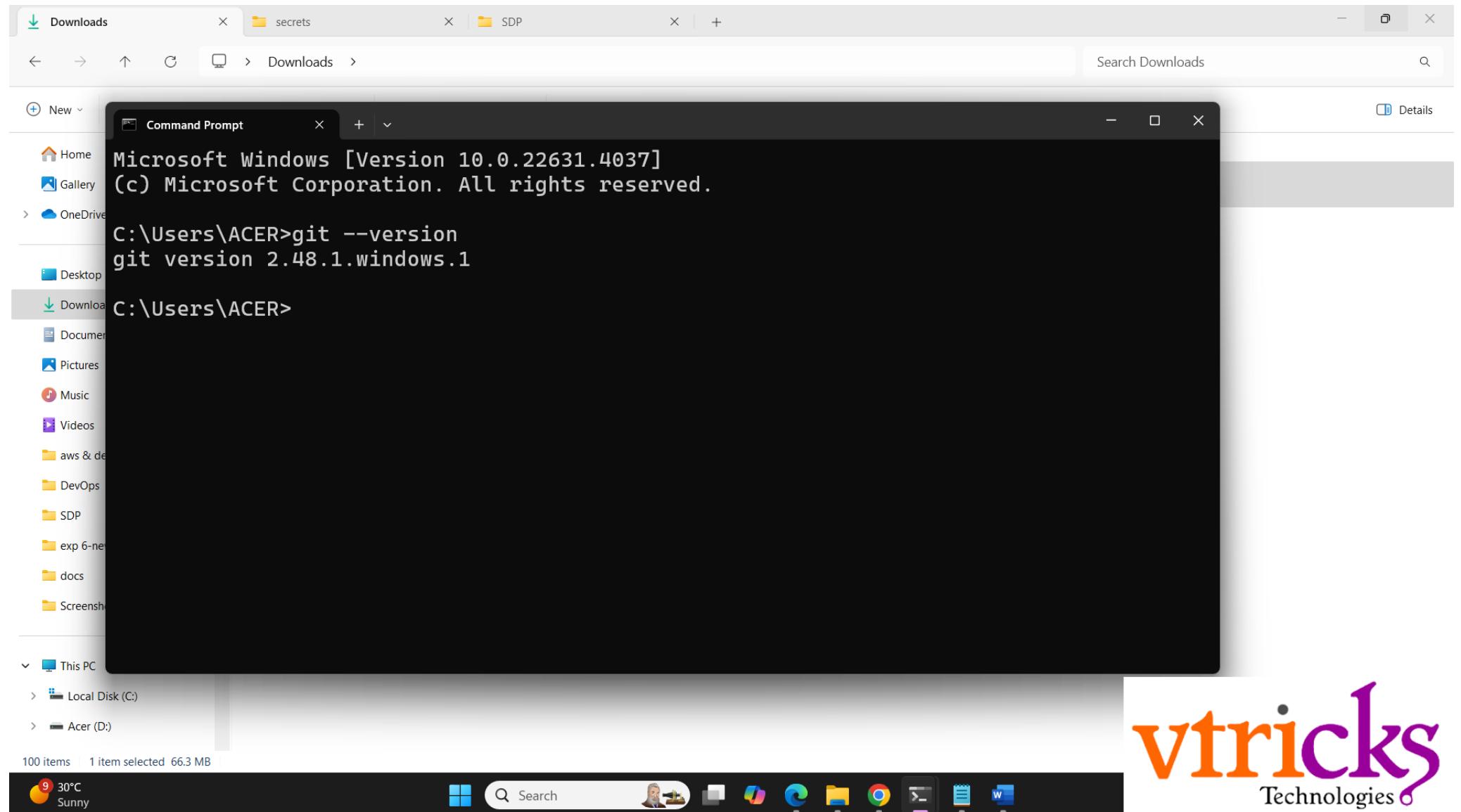


## Step 5: Follow the steps to continue with installation



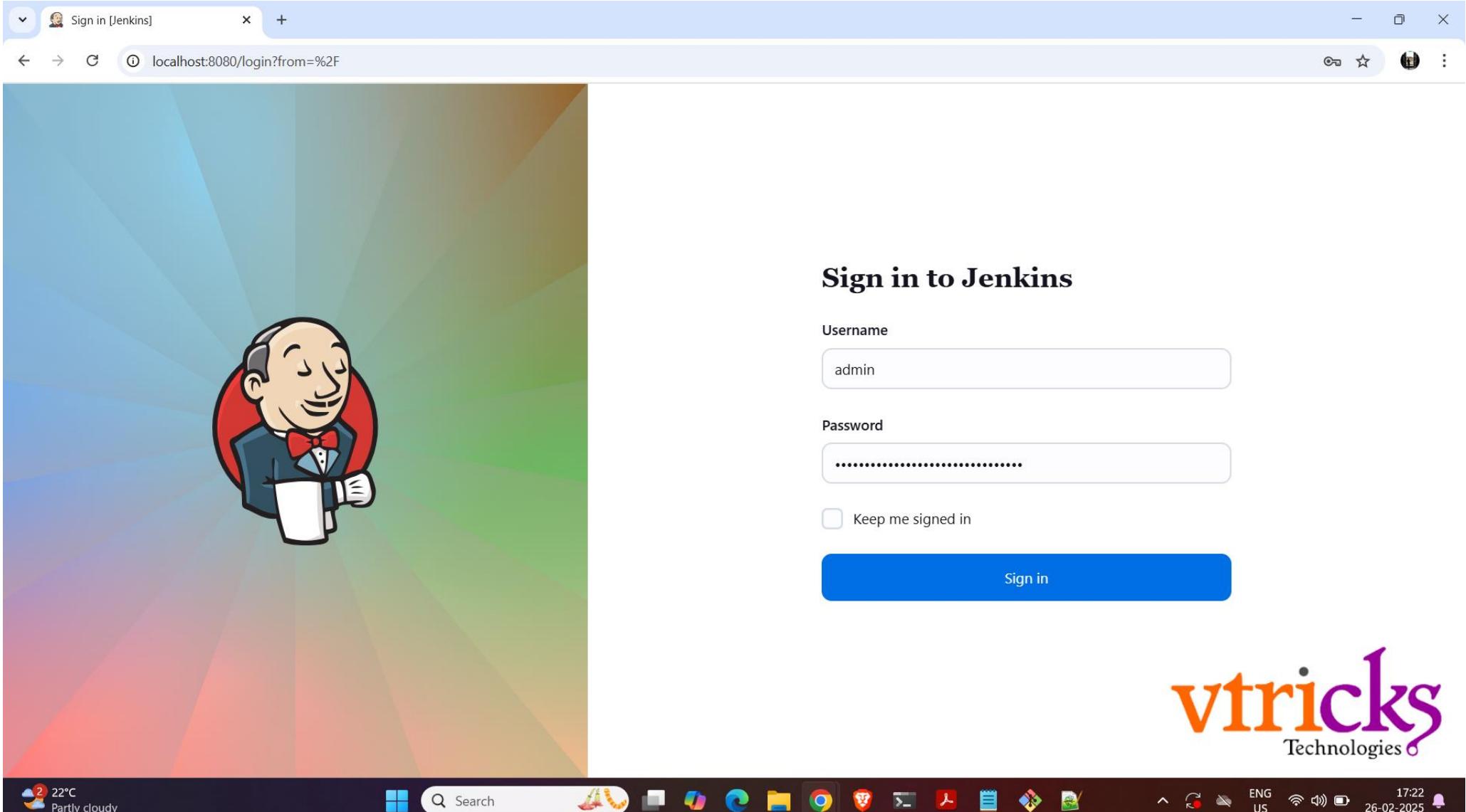
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Step 6: After completion of installation, Run “git --version” in command prompt to verify the installation of git.



## CI/CD SET UP IN JENKINS

### Step 1: Sign in to Jenkins



The screenshot shows a web browser window titled "Sign in [Jenkins]" with the URL "localhost:8080/login?from=%2F". The page features a colorful background with radial gradients in blue, green, yellow, and red. On the left side, there is a cartoon illustration of a man with a bow tie holding a coffee cup. The right side contains the Jenkins logo and the text "Sign in to Jenkins". Below the logo are fields for "Username" (containing "admin") and "Password" (containing a series of dots). There is also a "Keep me signed in" checkbox and a blue "Sign in" button. At the bottom of the screen, there is a taskbar with various icons and system status information.

Sign in to Jenkins

Username

admin

Password

.....

Keep me signed in

Sign in

2 22°C Partly cloudy

Search

vtricks Technologies

ENG US 17:22 26-02-2025

Step 2: In the Jenkins dashboard click on “Manage Jenkins”

The screenshot shows the Jenkins dashboard at [localhost:8080](http://localhost:8080). The top navigation bar includes a user icon, 'Dashboard [Jenkins]', and a search bar. On the right, there are icons for a shield with a '1', a person labeled 'admin', and 'log out'. Below the header, the Jenkins logo is displayed, followed by a 'Dashboard' link and a 'New Item' button. A red box highlights the 'Manage Jenkins' link, which is preceded by a gear icon. Other links include 'Build History' and 'My Views'. To the right, a large 'Welcome to Jenkins!' message is centered, with a sub-section titled 'Start building your software project' containing a 'Create a job' button and a '+' icon. Further down, there are sections for 'Set up a distributed build', 'Set up an agent' (with a monitor icon), 'Configure a cloud' (with a cloud icon), and 'Learn more about distributed builds' (with a question mark icon). At the bottom of the page, there is a footer with the vtricks Technologies logo, REST API, Jenkins 2.492.1, and system status indicators like weather, search, and various application icons.

Dashboard [Jenkins] localhost:8080 admin log out

Jenkins

Dashboard >

+ New Item

Build History

Manage Jenkins

My Views

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 ?

vtricks Technologies REST API Jenkins 2.492.1

22°C Partly cloudy Search

ENG US 17:23 26-02-2025

Step 3: In the “Manage Jenkins” window click on “Plugins”

The screenshot shows the Jenkins Manage Jenkins page. On the left sidebar, the 'Manage Jenkins' item is selected and highlighted with a red box. On the right side, the 'Plugins' section is also highlighted with a red box. The 'Plugins' section contains a brief description: 'Add, remove, disable or enable plugins that can extend the functionality of Jenkins.'

**Manage Jenkins**

**System Configuration**

- System**: Configure global settings and paths.
- Nodes**: Add, remove, control and monitor the various nodes that Jenkins runs jobs on.
- Appearance**: Configure the look and feel of Jenkins

**Security**

- Security**: Secure Jenkins; define who is allowed to access/use the system.
- Credentials**: Configure credentials
- Credential Providers**: Configure the credential providers and types

**Tools**: Configure tools, their locations and automatic installers.

**Install as Windows Service**: Installs Jenkins as a Windows service to this system, so that Jenkins starts automatically when the machine boots.

**Clouds**: Add, remove, and configure cloud instances to provision agents on-demand.

**Plugins**: Add, remove, disable or enable plugins that can extend the functionality of Jenkins.

localhost:8080/manage/pluginManager

22°C Partly cloudy

Search

ENG US 17:24 26-02-2025



Step 4: In “Plugins” window click on “Available plugins” → Search for “Pipeline:Stage View” → select “Pipeline:Stage View” → click on “Install”

The screenshot shows the Jenkins Plugin Manager interface. On the left, there's a sidebar with options: Updates, Available plugins (which is selected and highlighted with a red box), Installed plugins, Advanced settings, and Download progress. The main area has a search bar at the top with the query "pipe". Below the search bar, there's a toolbar with "Install" and "Available" buttons. A red box highlights both the search bar and the "Install" button. The results list shows several plugins:

- Pipeline: REST API 2.37 (User Interface) - Last updated 12 days ago.
- Pipeline: Stage View 2.37 (User Interface) - Last updated 12 days ago. This plugin is selected, indicated by a checked checkbox icon, and highlighted with a red box.
- Docker Pipeline 599.v76126c79a\_a\_2d (pipeline, DevOps, Deployment, docker) - Last updated 16 hr ago.
- Lockable Resources 1349.v8b\_ccb\_c5487f7 (pipeline, Cluster Management, Agent Management) - Last updated 19 days ago.
- Pipeline: Deprecated Groovy Libraries 612.v55f2f80781ef (Miscellaneous) - A note below it states: "Hosting of Pipeline Groovy libraries inside a Jenkins Git server. **Deprecated**. Use [Pipeline: Groovy Libraries](#) instead. If you...

At the bottom of the screen, there's a taskbar with various icons and system status information. On the right side, there's a watermark for "vtricks Technologies".

## Look for the successful installation of plugin

The screenshot shows the Jenkins 'Plugins' management page at [localhost:8080/manage/pluginManager/updates/](http://localhost:8080/manage/pluginManager/updates/). The left sidebar lists navigation options: Dashboard, Manage Jenkins, Plugins, Updates, Available plugins, Installed plugins, Advanced settings, and Download progress. The 'Download progress' tab is currently selected. The main content area displays a list of installed and available plugins, each with a status indicator (green circle with a checkmark) followed by the word 'Success'. A red box highlights the entries for 'Pipeline: REST API', 'Pipeline: Stage View', and 'Loading plugin extensions'. Below this list, there is a message: → [Go back to the top page](#) (you can start using the installed plugins right away).

Plugin	Status
Pipeline Graph Analysis	Success
Metrics	Success
Pipeline Graph View	Success
Git	Success
EDDSA API	Success
Trilead API	Success
SSH Build Agents	Success
Matrix Authorization Strategy	Success
PAM Authentication	Success
LDAP	Success
Email Extension	Success
Mailer	Success
Theme Manager	Success
Dark Theme	Success
Loading plugin extensions	Success
Pipeline: REST API	Success
Pipeline: Stage View	Success
Loading plugin extensions	Success

→ [Go back to the top page](#)  
(you can start using the installed plugins right away)



REST API Jenkins 2.492.1



Step 5: Go to main Dashboard of Jenkins → click on “New Item” or “Create a Job”

The screenshot shows the Jenkins dashboard at [localhost:8080](http://localhost:8080). The left sidebar has a 'New Item' button highlighted with a red box. The main content area features a 'Welcome to Jenkins!' message and a 'Start building your software project' section with a 'Create a job' button also highlighted with a red box. The bottom status bar shows system information like weather, search, and system icons.

Dashboard >

+ New Item

Build History

Manage Jenkins

My Views

Build Queue

No builds in the queue.

Build Executor Status

0/2

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

22°C Partly cloudy

Search

ENG US

17:27 26-02-2025

REST API Jenkins 2.492.1



Step 6: Provide Project/item name → select Item type → click on “OK”

New Item

Enter an item name

maven-project

Select an item type

**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.

**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.

**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**  
Creates a container that stores nested items in it. Useful for grouping things together. Unlike view, which is just a filter, a folder creates a separate namespace, so you can have multiple things of the same name as long as they are in different

OK

22°C Partly cloudy

Search

ENG US 17:28 26-02-2025

## Step 7: Provide Description(optional)

The screenshot shows the Jenkins configuration interface for a 'maven-project'. The 'General' tab is selected. A red box highlights the 'Description' input field, which contains the text 'maven project 1'. Below the description, there are several optional checkboxes: 'Discard old builds', 'Do not allow concurrent builds', 'Do not allow the pipeline to resume if the controller restarts', 'GitHub project', 'Pipeline speed/durability override', and 'Preserve stashes from completed builds'. At the bottom of the configuration panel are 'Save' and 'Apply' buttons. The top of the window shows the browser title 'maven-project Config [Jenkins]' and the URL 'localhost:8080/job/maven-project/configure'. The top right corner shows the Jenkins logo, user 'admin', and a 'log out' link. The bottom of the screen shows a Windows taskbar with various icons and system status.

Scroll down in this window

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## Step 8: Select “GitHub hook trigger for GITScm polling”

The screenshot shows the Jenkins configuration page for a job named "maven-project". The "Triggers" section is active, indicated by a red box around the "Triggers" tab in the sidebar. The "GitHub hook trigger for GITScm polling" option is selected, indicated by a checked checkbox and highlighted with a red box. Other trigger options shown are "Build after other projects are built", "Build periodically", "Poll SCM", and "Trigger builds remotely". Below the triggers, there is a "Pipeline" section with a "Definition" dropdown set to "Pipeline script". A code editor window titled "Script" is open, showing a single line of Groovy code: "1". There is a "try sample Pipeline..." button next to the code editor. At the bottom of the page, there are "Save" and "Apply" buttons.

Scroll down in this window

Step 9: Under “Pipeline”, select “Pipeline script” → select “Hello world” or “try sample Pipeline” → click on “Pipeline Syntax”

The screenshot shows the Jenkins Pipeline configuration page for a job named "maven-project". The "Pipeline" tab is selected in the sidebar. The main area displays a Groovy script for a pipeline:

```
1 pipeline {  
2     agent any  
3     stages {  
4         stage('Hello') {  
5             steps {  
6                 echo 'Hello World'  
7             }  
8         }  
9     }  
10 }  
11  
12 }
```

Key UI elements highlighted with red boxes:

- "Pipeline script" dropdown menu (top right of the script editor).
- "try sample Pipeline..." dropdown menu (top right of the script editor).
- "Pipeline Syntax" button (bottom left of the script editor).
- "Save" button (bottom left of the script editor).

The Jenkins interface includes a header bar with a user icon, a search bar, and various system status icons like weather and battery level. A watermark for "vtricks Technologies" is visible in the bottom right corner.

## Pipeline Syntax window appears as follows

The screenshot shows the Jenkins Pipeline Syntax Snippet Generator interface. At the top, there are two tabs: "maven-project Config [Jenkins]" and "Pipeline Syntax: Snippet Genera". The URL in the address bar is "localhost:8080/job/maven-project/pipeline-syntax/". The page title is "Jenkins". On the right, there is a search icon, a user icon labeled "admin", and a "log out" link.

The main navigation bar includes "Dashboard", "maven-project", and "Pipeline Syntax". On the left, a sidebar titled "Snippet Generator" lists several options: "Declarative Directive Generator", "Declarative Online Documentation", "Steps Reference", "Global Variables Reference", "Online Documentation", "Examples Reference", and "IntelliJ IDEA GDSL".

The main content area is titled "Overview". It contains a brief description of the Snippet Generator: "This **Snippet Generator** will help you learn the Pipeline Script code which can be used to define various steps. Pick a step you are interested in from the list, configure it, click **Generate Pipeline Script**, and you will see a Pipeline Script statement that would call the step with that configuration. You may copy and paste the whole statement into your script, or pick up just the options you care about. (Most parameters are optional and can be omitted in your script, leaving them at default values.)"

A section titled "Steps" shows a "Sample Step" named "archiveArtifacts: Archive the artifacts". Below this, there is a configuration panel for "archiveArtifacts". It includes fields for "Files to archive" (with a placeholder "C:\jenkins\workspace\myapp\target") and an "Advanced" dropdown menu. A "Generate Pipeline Script" button is located below the configuration panel.

At the bottom of the screen, there is a taskbar with icons for weather (22°C, Partly cloudy), search, file explorer, Google Chrome, and other applications. The system tray shows the date (26-02-2025) and time (17:36). A watermark for "vtricks Technologies" is visible on the right side of the interface.

Step 10: under “Sample Step” select “git: Git” form drop down → under “Repository URL” provide project’s git repository URL → under “Branch” select branch name, usually “main”

The screenshot shows the Jenkins Pipeline Syntax Snippet Generator interface. On the left, there's a sidebar with links like Snippet Generator, Declarative Directive Generator, Declarative Online Documentation, Steps Reference, Global Variables Reference, Online Documentation, Examples Reference, and IntelliJ IDEA GDSL. The main content area has a title 'Overview'. Below it, a section titled 'Steps' contains a 'Sample Step' dropdown menu. The 'git: Git' option is selected and highlighted with a red box. Below this, there are fields for 'Repository URL' containing 'https://github.com/VijayDesai08/maven-project.git' and 'Branch' containing 'main', both also highlighted with red boxes. At the bottom, there's a toolbar with various icons and status information including weather, system volume, and date/time.

localhost:8080/job/maven-project/pipeline-syntax/

Jenkins

Dashboard > maven-project > Pipeline Syntax

Snippet Generator

Declarative Directive Generator

Declarative Online Documentation

Steps Reference

Global Variables Reference

Online Documentation

Examples Reference

IntelliJ IDEA GDSL

Sample Step

git: Git

git

Repository URL

https://github.com/VijayDesai08/maven-project.git

Branch

main

Credentials

- none -

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Scroll down in this window

## Step 11: Click on “Generate Pipeline Script” → copy generated script

The screenshot shows the Jenkins Pipeline Syntax Snippet Generator interface. At the top, there are two tabs: "maven-project Config [Jenkins]" and "Pipeline Syntax: Snippet Genera". The URL in the address bar is "localhost:8080/job/maven-project/pipeline-syntax/". Below the tabs, the breadcrumb navigation shows "Dashboard > maven-project > Pipeline Syntax".

The main area contains the following configuration:

- Credentials:** - none -
- + Add**
- Include in polling?**
- Include in changelog?**

A large blue button labeled "Generate Pipeline Script" is highlighted with a red box. Below it, the generated pipeline code is shown in a red-bordered box:

```
git branch: 'main', url: 'https://github.com/VijayDesai08/maven-project.git'
```

At the bottom left, there is a "Global Variables" section with a note about unsupported Pipeline features.

On the right side of the screen, the vtricks Technologies logo is visible.

The bottom of the image shows a Windows taskbar with various icons and system status information, including the date and time (26-02-2025, 17:37).

Step 12: Go back to project configuration window → make changes as in the following image

The screenshot shows the Jenkins Pipeline Syntax configuration page for a job named "maven-project". The "Pipeline" tab is selected in the sidebar. The main area displays a Groovy script for defining a pipeline stage:

```
1 pipeline {  
2   agent any  
3  
4   stages {  
5     stage('SCM') {  
6       steps {  
7         git branch: 'main', url: 'https://github.com/VijayDesai08/maven-project.git'  
8       }  
9     }  
10   }  
11 }  
12 }
```

Annotations highlight specific parts of the code:

- A callout box labeled "Name of the stage: SCM" points to the stage name "SCM" in the script.
- A callout box labeled "Paste generated pipeline script" points to the text input field where the generated script is pasted.

Other visible elements include a "General" section in the sidebar, a "Definition" dropdown set to "Pipeline script", and a "try sample Pipeline..." button. A note on the left side states: "This stage draws/downloads project code and other dependency files from the source code management tool github." A "Use Groovy Sandbox" checkbox is checked. At the bottom are "Save" and "Apply" buttons.

make changes as in the following image and click on “Apply” and “Save”

The screenshot shows the Jenkins Pipeline configuration page for a job named "maven-project". The "Pipeline" tab is selected in the sidebar. A callout box on the left side of the pipeline script area contains the following text:

This stage creates “target” directory using project files downloaded in previous stage. Inside this .jar/.war file of the project will be created.

The pipeline script is as follows:

```
1 pipeline {  
2   agent any  
3  
4   stages {  
5     stage('SCM') {  
6       steps {  
7         git branch: 'main', url: 'https://github.com/VijayDesai08/maven-project.git'  
8       }  
9     }  
10    stage('BUILD') {  
11      steps {  
12        bat '"E:\\aws & devops\\apache-maven-3.9.9\\bin\\mvn" clean install'  
13      }  
14    }  
15  }  
16}
```

Annotations highlight specific parts of the script:

- A red box surrounds the stage name "stage('BUILD')". An arrow points from this box to a callout box labeled "Name of the stage".
- A red box surrounds the command "bat '"E:\\aws & devops\\apache-maven-3.9.9\\bin\\mvn" clean install'". An arrow points from this box to a callout box labeled "Command to create a .war file".

At the bottom of the configuration page, there are "Save" and "Apply" buttons. The "Use Groovy Sandbox" checkbox is checked.

## Step 13: go to project window and click on “Build Now”

The screenshot shows the Jenkins interface for the 'maven-project' pipeline. The top navigation bar includes tabs for 'maven-project [Jenkins]' and 'Pipeline Syntax: Snippet Genera'. The URL in the address bar is 'localhost:8080/job/maven-project/'. The main header features the Jenkins logo and the text 'Jenkins'. On the right, there are search, user profile ('admin'), and 'log out' links. Below the header, the breadcrumb navigation shows 'Dashboard > maven-project >'. The left sidebar contains several options: 'Status' (selected), 'Changes' (with a red box around the 'Build Now' button), 'Configure', 'Delete Pipeline', 'Full Stage View', 'Stages', 'Rename', 'Pipeline Syntax', and 'GitHub Hook Log'. The central area is titled 'maven-project' and 'maven project 1'. It includes a 'Stage View' section with a message 'No data available. This Pipeline has not yet run.' and a 'Permalinks' section. At the bottom, there is a 'Builds' summary card and a system tray with various icons.

maven-project

maven project 1

Stage View

No data available. This Pipeline has not yet run.

Permalinks

Builds

22°C Partly cloudy

Search

17:42 26-02-2025

## Observe building of different stages according to pipeline script

maven-project [Jenkins] Pipeline Syntax: Snippet Genera + localhost:8080/job/maven-project/ admin log out

### Jenkins

Dashboard > maven-project >

Status Edit description

</> Changes

▷ Build Now

⚙ Configure

Delete Pipeline

Full Stage View

Stages

Rename

Pipeline Syntax

Github Hook Log

### maven-project

maven project 1

#### Stage View

Average stage times:

Declarative: Tool Install	SCM	build	
255ms	3s	8s	
#1 17:42 No Changes	255ms	3s	8s

#### Permalinks

Builds

No builds

22°C Partly cloudy Search

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17:42 26-02-2025 ENG US

Step 14: Completion of building stages of the project will appear as below → click on build number under “Builds” to know Console Output of build

The screenshot shows the Jenkins Pipeline Syntax Snippet Generator interface. At the top, there are two tabs: "maven-project [Jenkins]" and "Pipeline Syntax: Snippet Genera". The URL in the address bar is "localhost:8080/job/maven-project/". The main header says "Jenkins" with a user icon and "admin log out". Below the header, the breadcrumb navigation shows "Dashboard > maven-project >".

The left sidebar contains the following options:

- Status (highlighted)
- </> Changes
- ▷ Build Now
- ⚙ Configure
- Delete Pipeline
- Full Stage View
- Stages
- Rename
- Pipeline Syntax
- Github Hook Log

The main content area has a title "maven-project" with a green checkmark icon. Below it is the subtitle "maven project 1".

The "Stage View" section is highlighted with a red box. It displays a grid of stages with their average times:

Declarative: Tool Install	SCM	build
Average stage times: (full run time: ~18s) #1 17:42 No Changes 255ms	3s	10s
	255ms	3s
	10s	

The "Builds" section is also highlighted with a red box. It shows a table with one row:

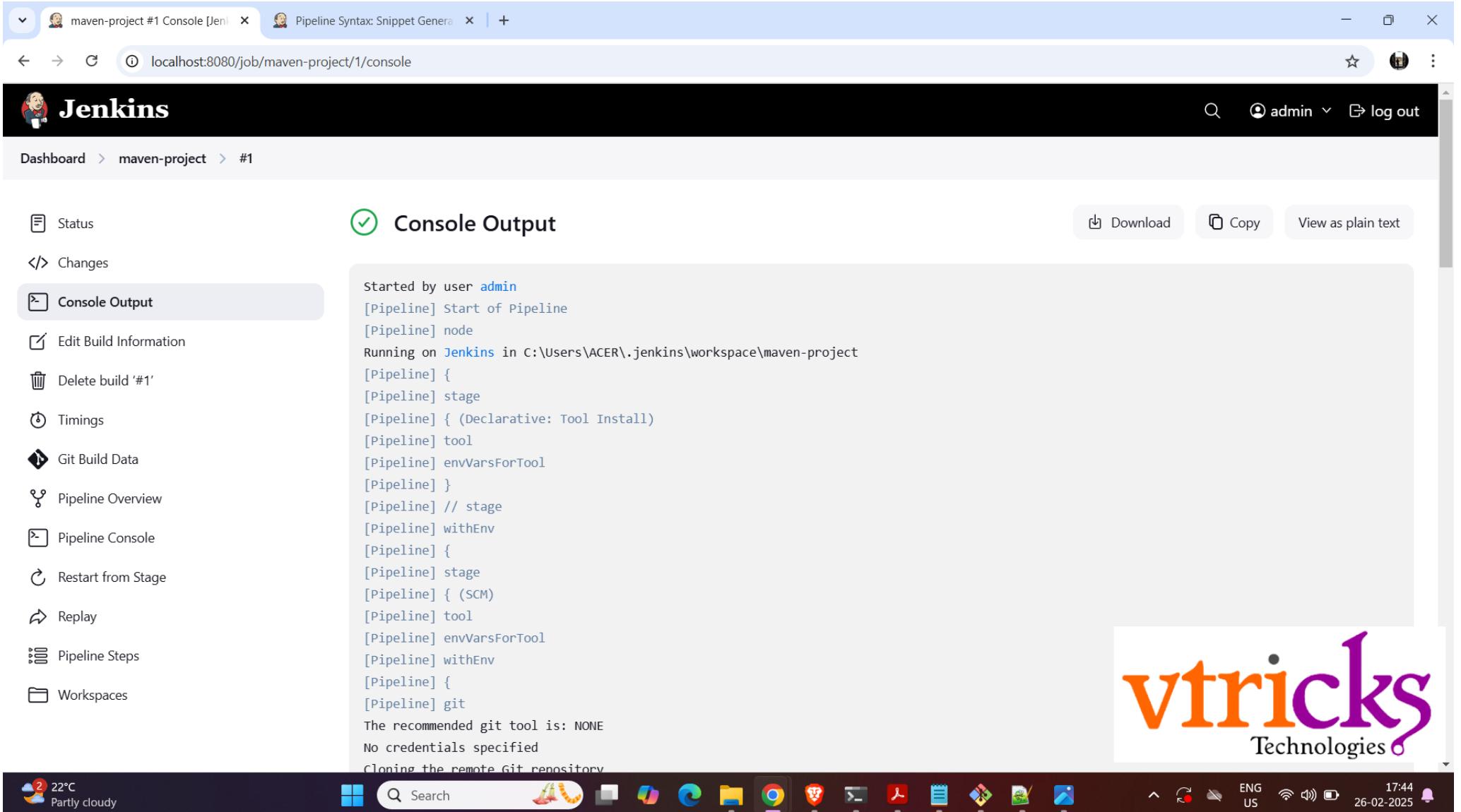
Builds
Filter Today #1 5:42 PM

To the right of the builds table, a list of permalinks is provided:

- Last build (#1), 52 sec ago
- Last stable build (#1), 52 sec ago
- Last successful build (#1), 52 sec ago
- Last completed build (#1), 52 sec ago

At the bottom of the screen, there is a taskbar with various icons and system status information. On the far right, the date and time are shown as "26-02-2025 17:43".

## Step 15: Console Output shows complete build details.



The screenshot shows a Jenkins interface with the following details:

- Top Bar:** Shows two open tabs: "maven-project #1 Console [Jen]" and "Pipeline Syntax: Snippet Genera".
- Address Bar:** Displays the URL "localhost:8080/job/maven-project/1/console".
- User Information:** Shows "admin" logged in.
- Header:** Features the Jenkins logo and navigation links for "Dashboard", "maven-project", and "#1".
- Left Sidebar:** Contains links for "Status", "Changes", "Console Output" (which is selected), "Edit Build Information", "Delete build '#1'", "Timings", "Git Build Data", "Pipeline Overview", "Pipeline Console", "Restart from Stage", "Replay", "Pipeline Steps", and "Workspaces".
- Central Content:** A large box titled "Console Output" displays the following log output:

```
Started by user admin
[Pipeline] Start of Pipeline
[Pipeline] node
Running on Jenkins in C:\Users\ACER\.jenkins\workspace\maven-project
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Declarative: Tool Install)
[Pipeline] tool
[Pipeline] envVarsForTool
[Pipeline] }
[Pipeline] // stage
[Pipeline] withEnv
[Pipeline] {
[Pipeline] stage
[Pipeline] { (SCM)
[Pipeline] tool
[Pipeline] envVarsForTool
[Pipeline] withEnv
[Pipeline] {
[Pipeline] git
The recommended git tool is: NONE
No credentials specified
Cloning the remote Git repository
```
- Bottom Status Bar:** Shows weather (22°C, Partly cloudy), a search bar, and various system icons (file explorer, browser, etc.). It also displays the date and time: "17:44 26-02-2025".



maven-project #1 Console [Jen] Pipeline Syntax: Snippet Genera +

localhost:8080/job/maven-project/1/console

Dashboard > maven-project > #1

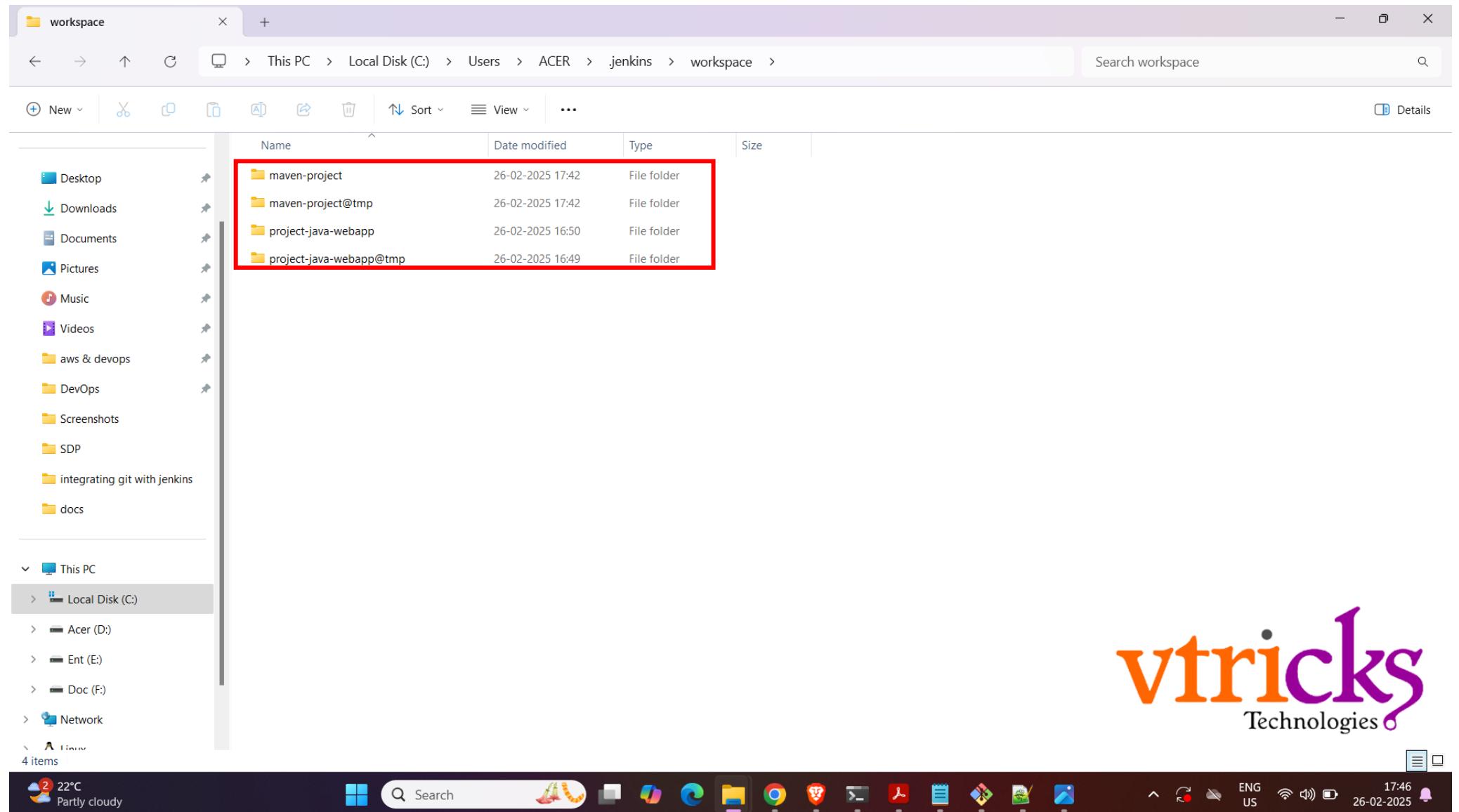
```
[INFO] Webapp assembled in [255 msec]
[INFO] Building war: C:\Users\ACER\.jenkins\workspace\maven-project\target\ROOT.war
[INFO]
[INFO] --- install:2.5.2:install (default-install) @ ROOT ---
[INFO] Installing C:\Users\ACER\.jenkins\workspace\maven-project\target\ROOT.war to C:\Users\ACER\.m2\repository\xyz\thebasha\ROOT\1.0-SNAPSHOT\ROOT-1.0-SNAPSHOT.war
[INFO] Installing C:\Users\ACER\.jenkins\workspace\maven-project\pom.xml to C:\Users\ACER\.m2\repository\xyz\thebasha\ROOT\1.0-SNAPSHOT\ROOT-1.0-SNAPSHOT.pom
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time:  5.934 s
[INFO] Finished at: 2025-02-26T17:42:59+05:30
[INFO] -----
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // stage
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // node
[Pipeline] End of Pipeline
Finished: SUCCESS
```

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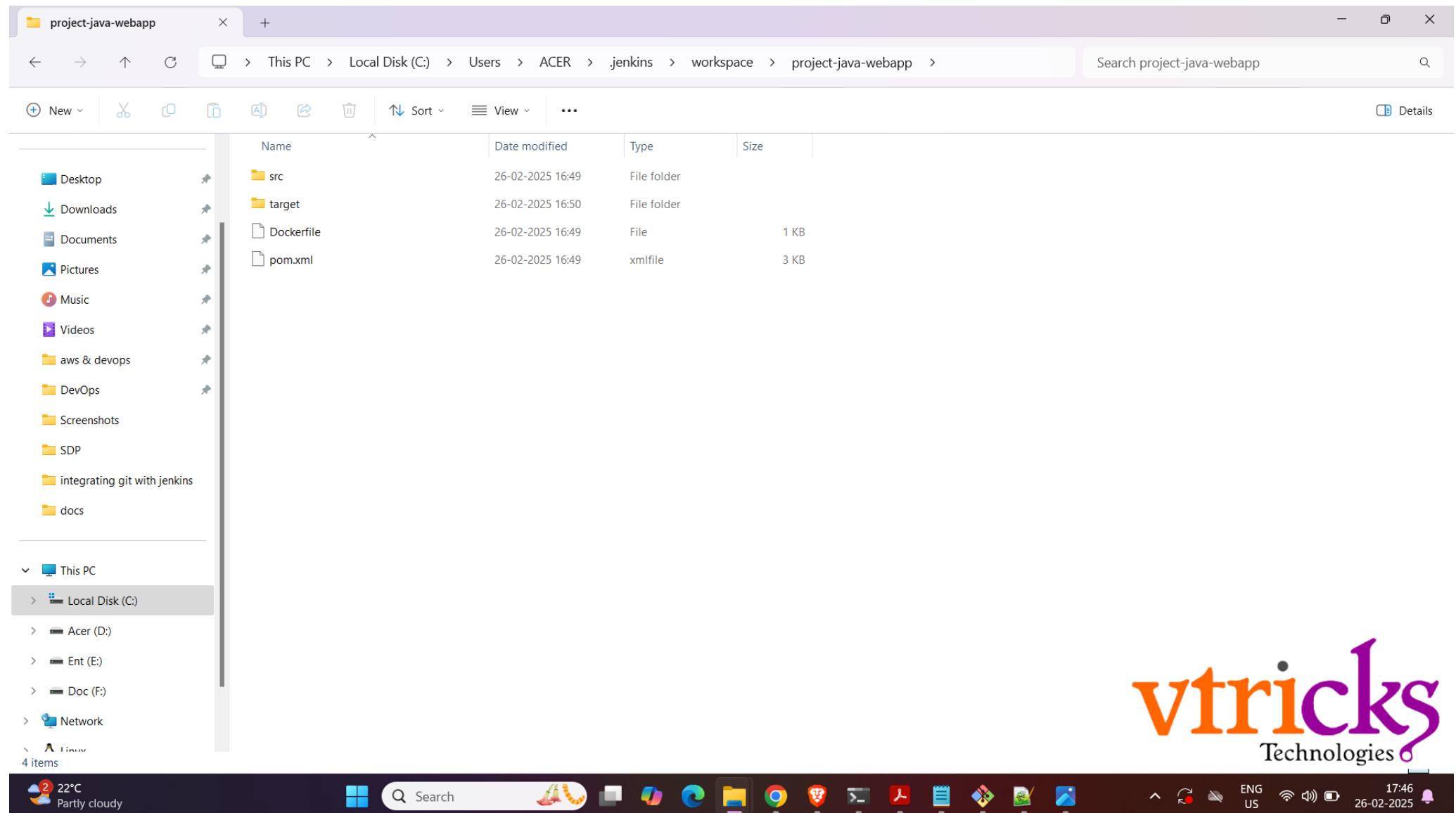
REST API Jenkins 2.492.1



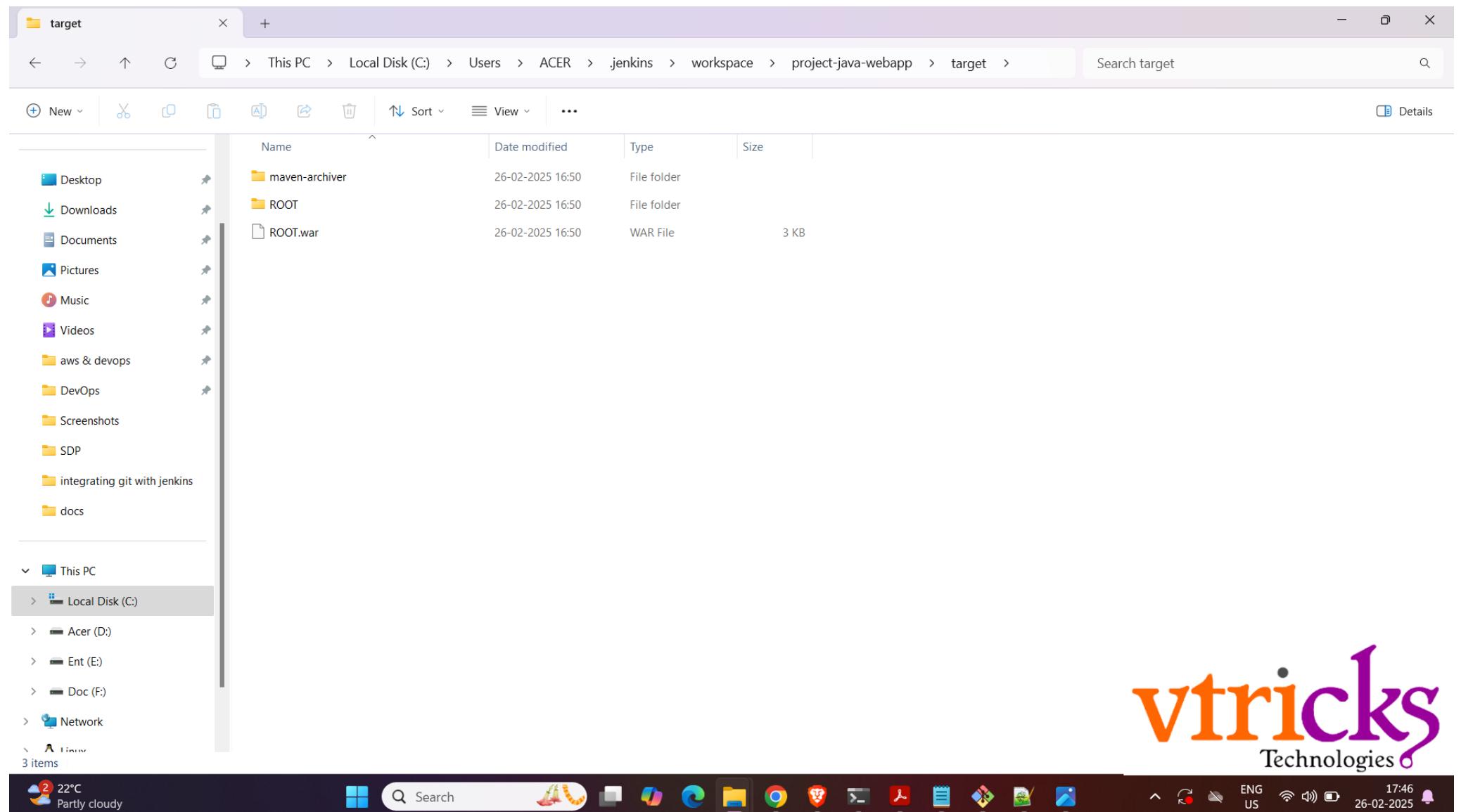
Step 15: go to "C:\Users\<your system user>\.jenkins\workspace" to verify the built projects; click on your project



Check for file and folders of the project; verify the creation of “target” folder inside which “.war” will be available



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