

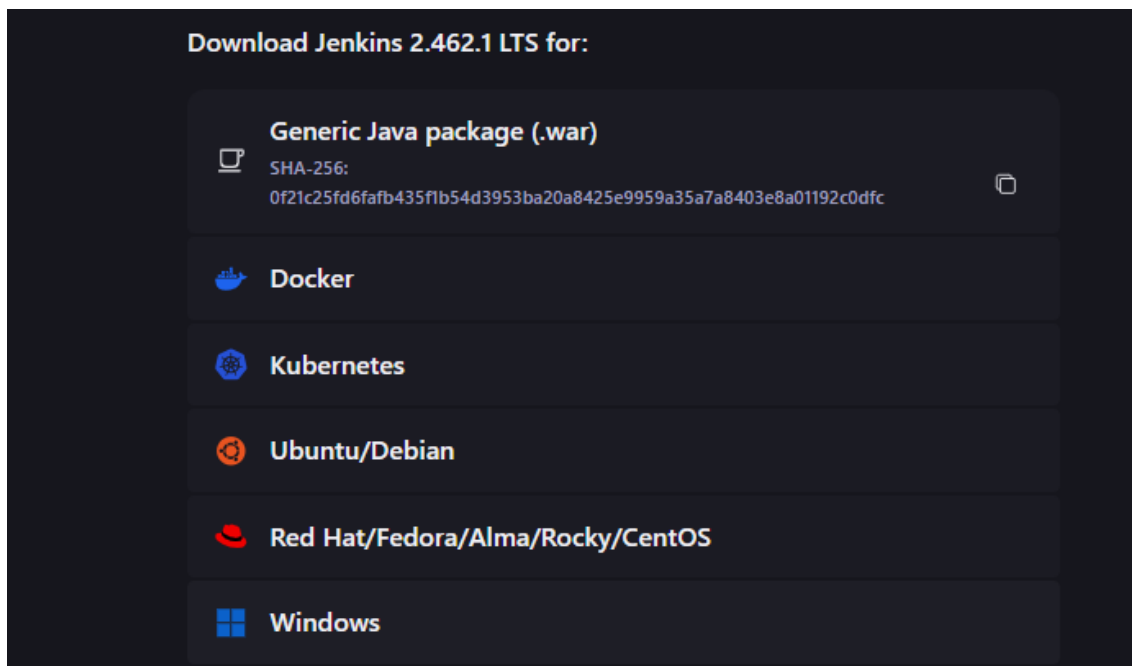
Experiment No. 4

Procedure :

Step 1 : Go to jenkins.io



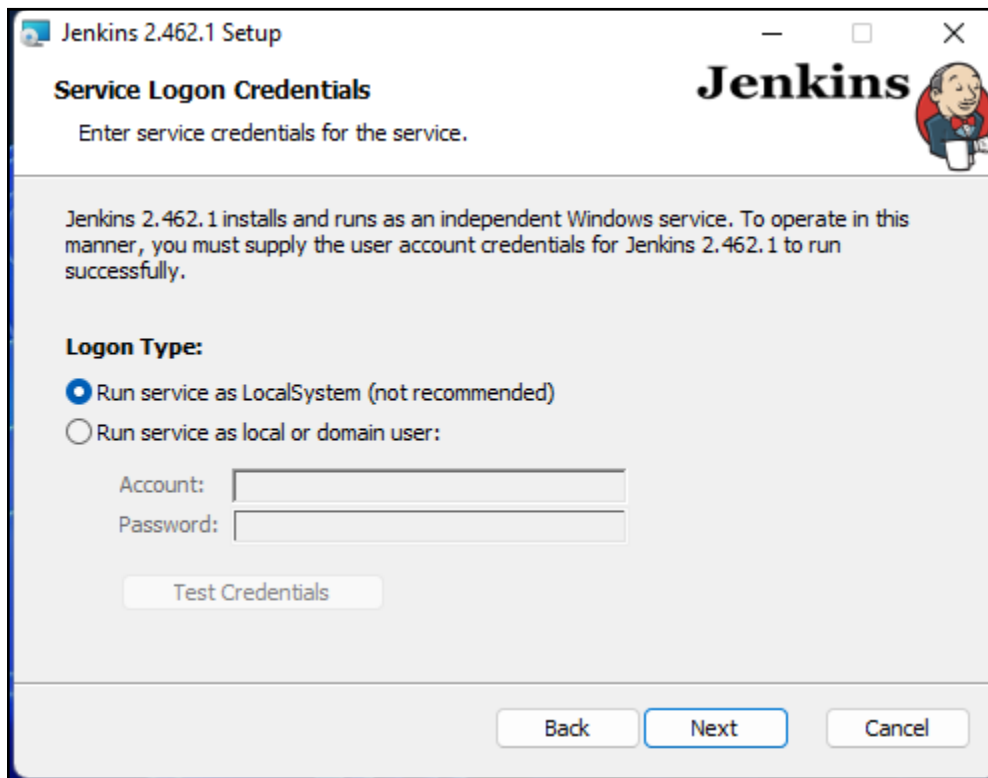
Step 2 : Download Jenkins.



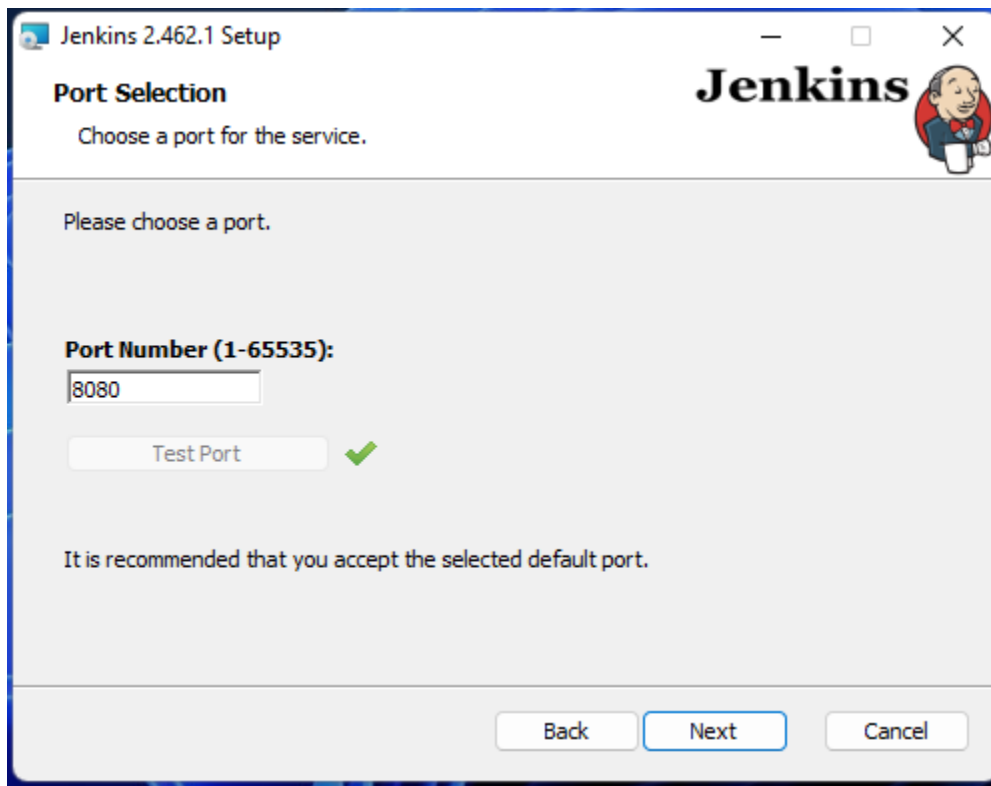
Step 3 : Start Jenkins setup.



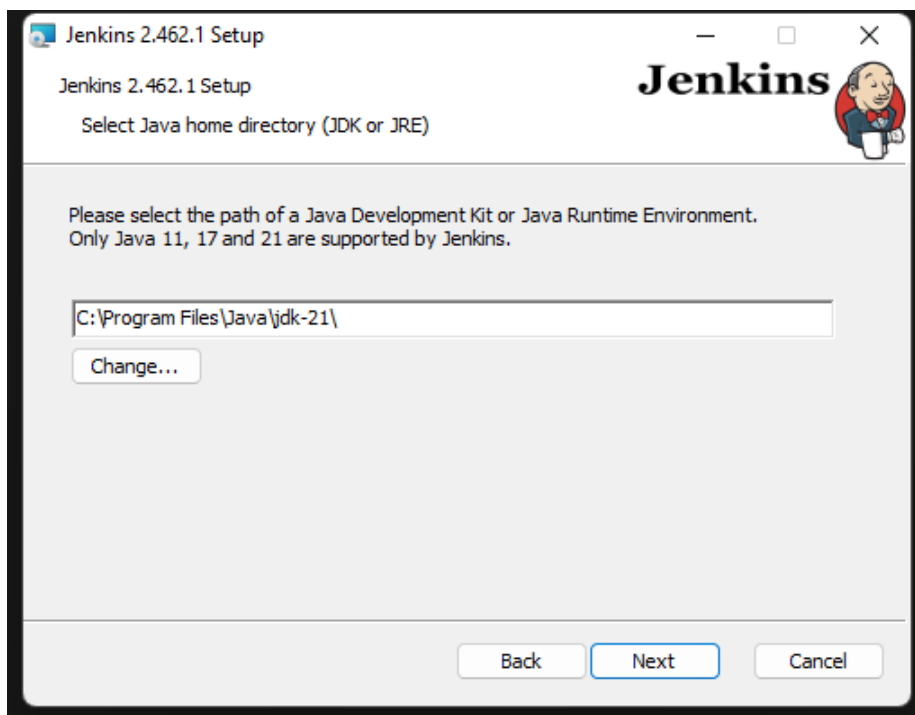
Step 4 : Run service as LocalSystem.



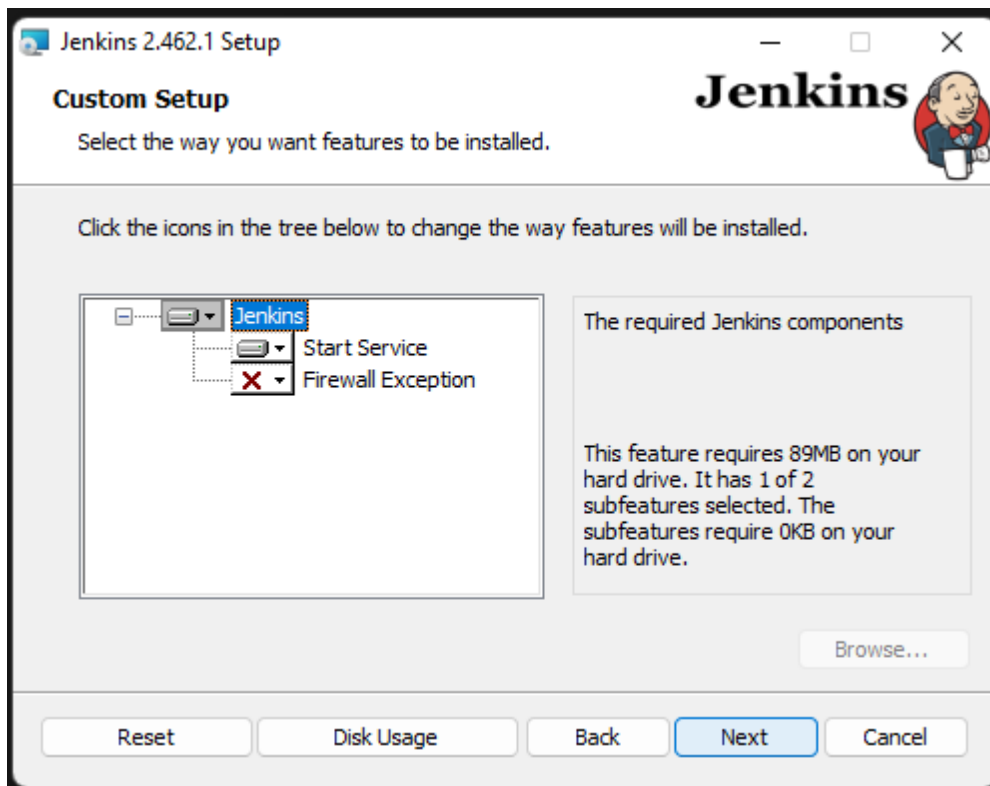
Step 5 : Port number 8080.



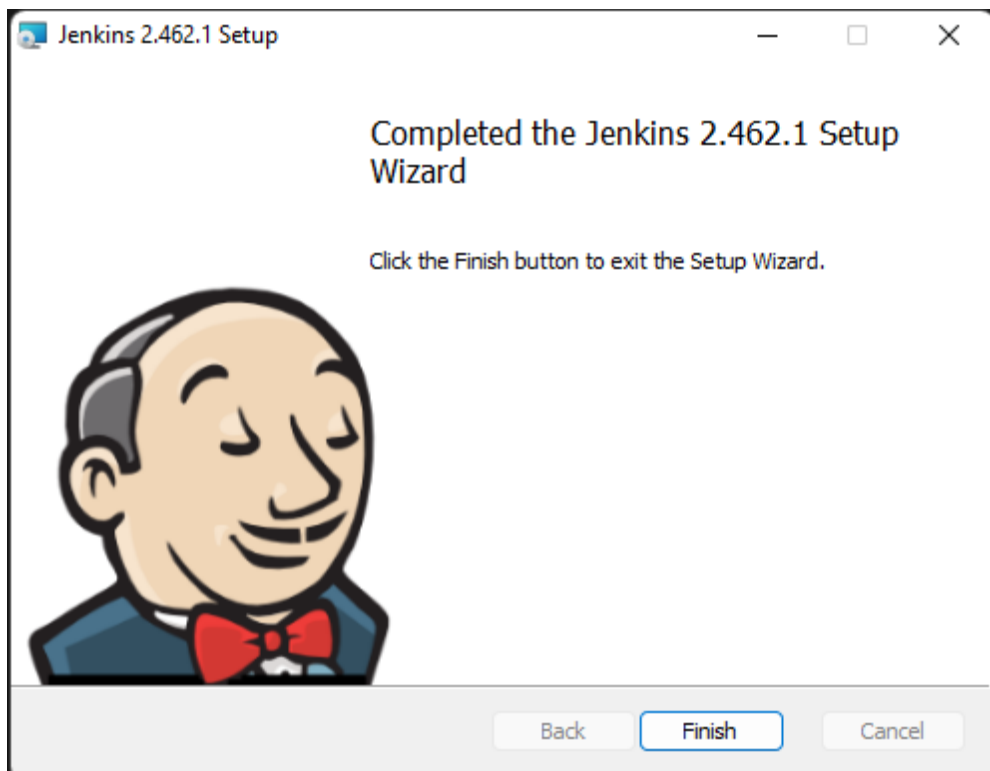
Step 6 : Set JDK path.



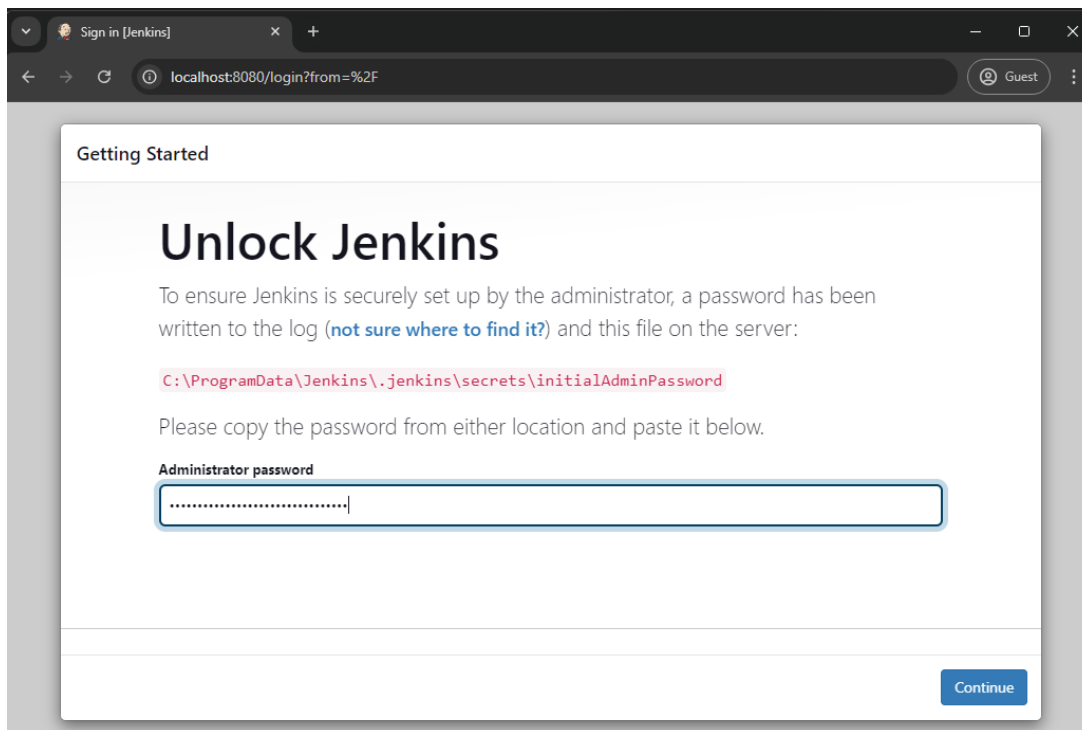
Step 7 : Click on next and install.



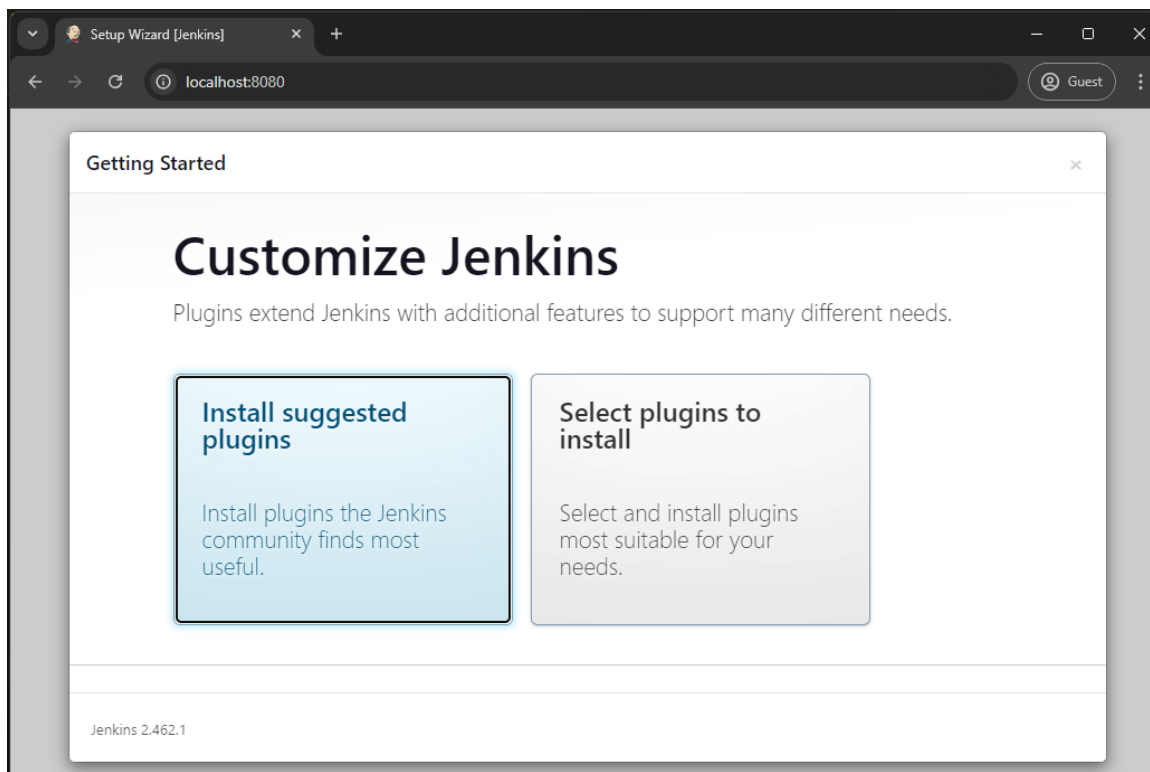
Step 8 : Jenkins setup is completed.



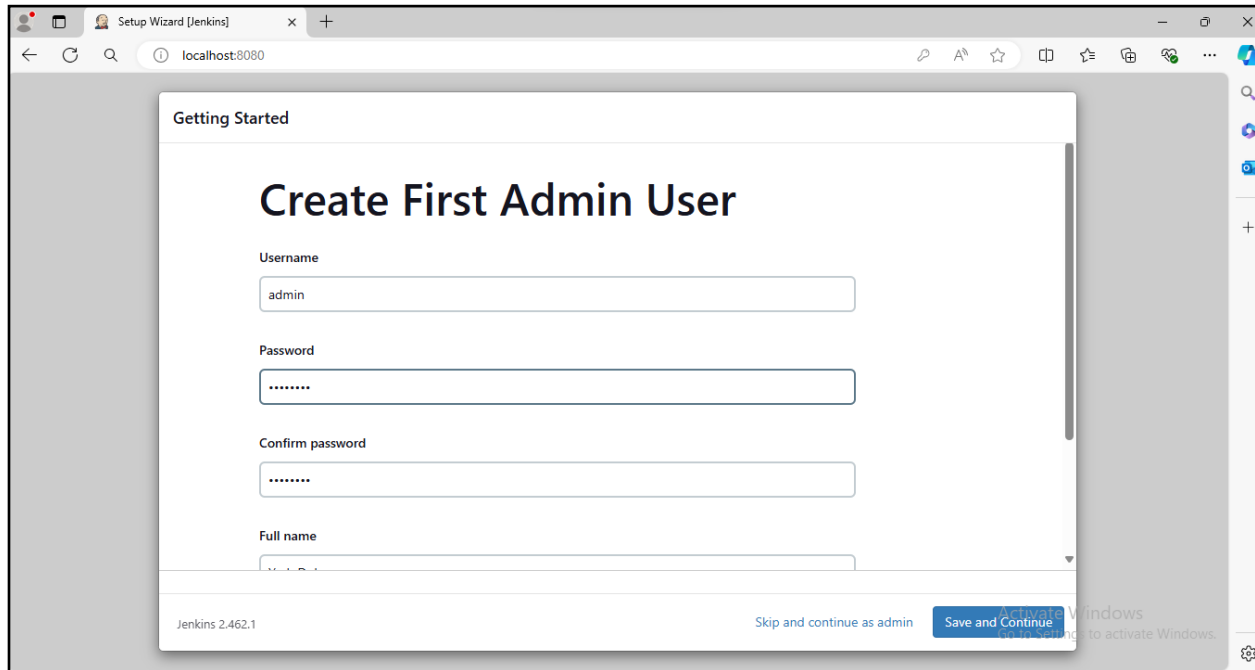
Step 9 : Get password from the path and unlock Jenkins.



Step 10 : Install suggested plugins.



Step 11 : Create User.



The screenshot shows the 'Getting Started' page of the Jenkins Setup Wizard. The main heading is 'Create First Admin User'. Below this, there are four input fields: 'Username' (containing 'admin'), 'Password' (masked with dots), 'Confirm password' (masked with dots), and 'Full name' (empty). At the bottom right, there are two buttons: 'Skip and continue as admin' and 'Save and Continue'. The Jenkins version 'Jenkins 2.462.1' is displayed at the bottom left. A Windows watermark is visible in the bottom right corner.

Getting Started

Create First Admin User

Username

Password

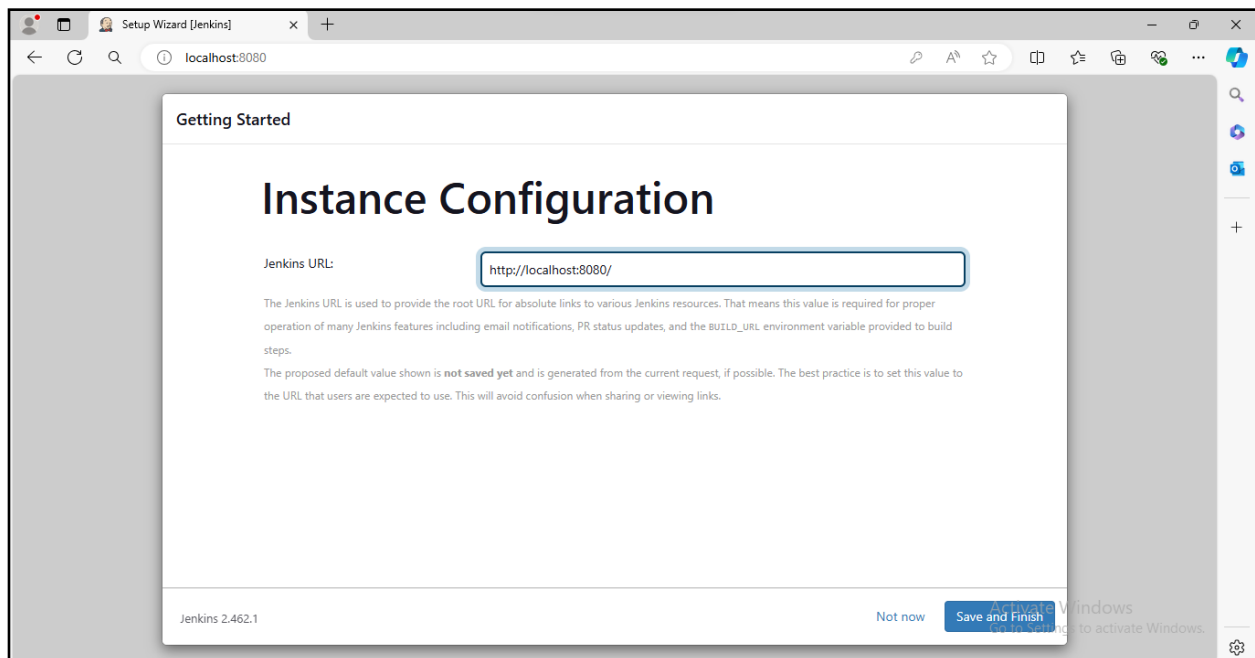
Confirm password

Full name

Jenkins 2.462.1

[Skip and continue as admin](#) [Save and Continue](#)

Step 12 : Configure instance.



The screenshot shows the 'Getting Started' page of the Jenkins Setup Wizard. The main heading is 'Instance Configuration'. Below this, there is a 'Jenkins URL' input field containing 'http://localhost:8080/'. Below the input field, there is a paragraph of text explaining the purpose of the Jenkins URL. At the bottom right, there are two buttons: 'Not now' and 'Save and Finish'. The Jenkins version 'Jenkins 2.462.1' is displayed at the bottom left. A Windows watermark is visible in the bottom right corner.

Getting Started

Instance Configuration

Jenkins URL:

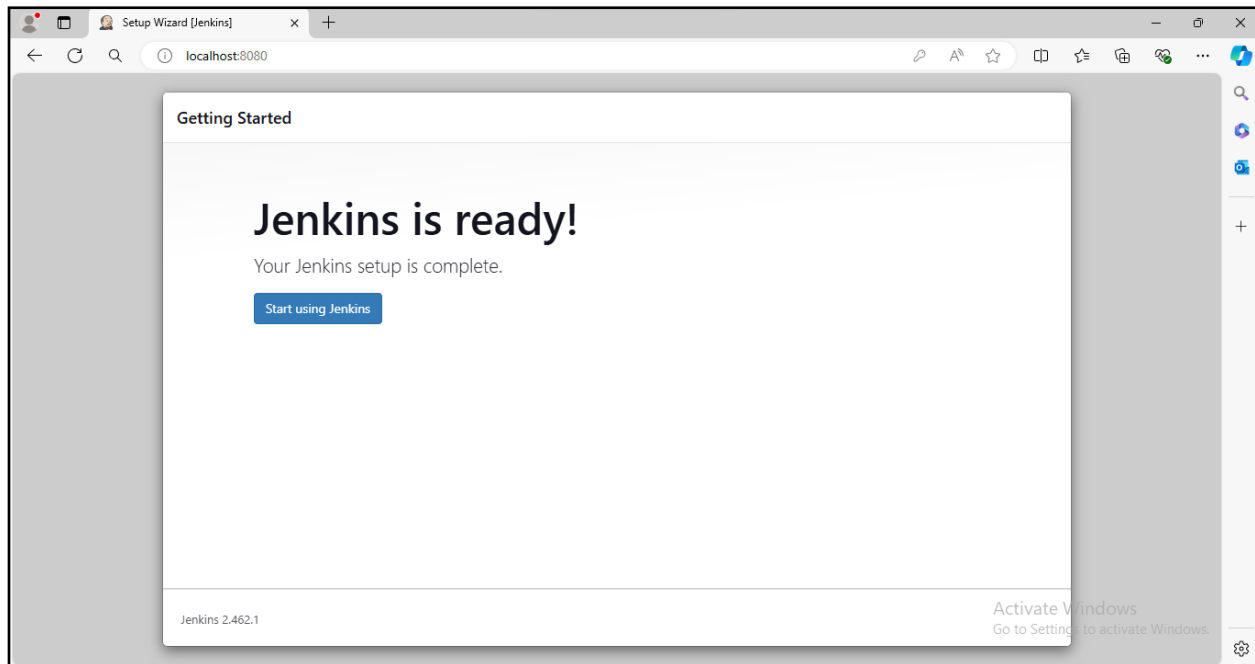
The Jenkins URL is used to provide the root URL for absolute links to various Jenkins resources. That means this value is required for proper operation of many Jenkins features including email notifications, PR status updates, and the `BUILD_URL` environment variable provided to build steps.

The proposed default value shown is not saved yet and is generated from the current request, if possible. The best practice is to set this value to the URL that users are expected to use. This will avoid confusion when sharing or viewing links.

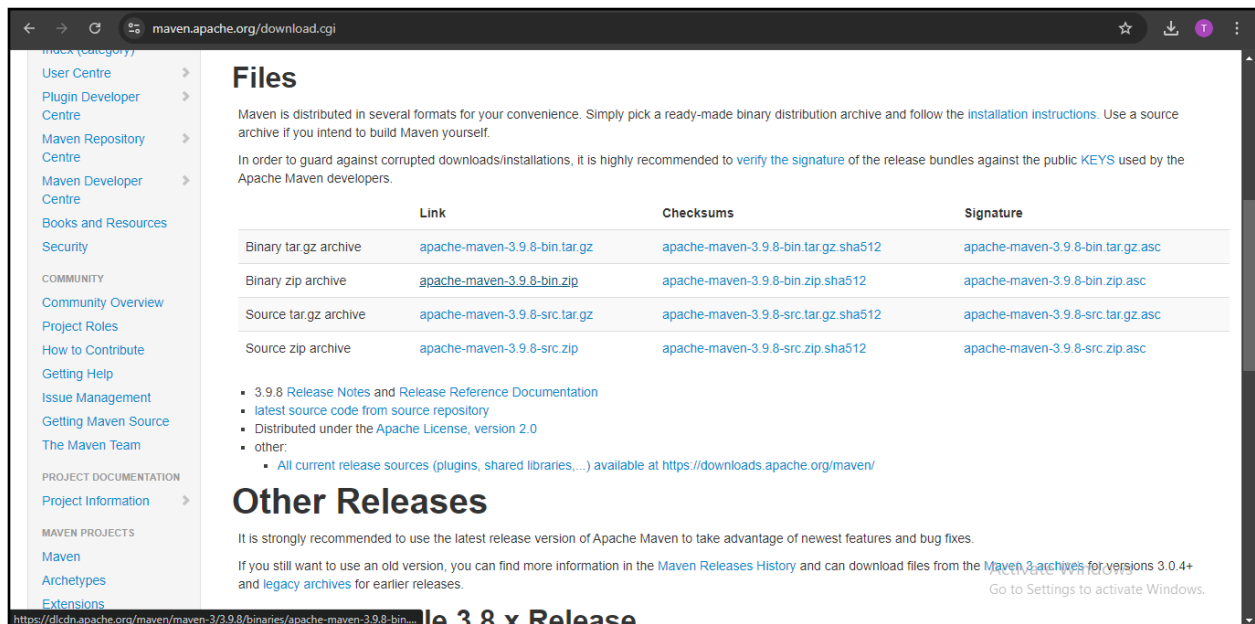
Jenkins 2.462.1

[Not now](#) [Save and Finish](#)

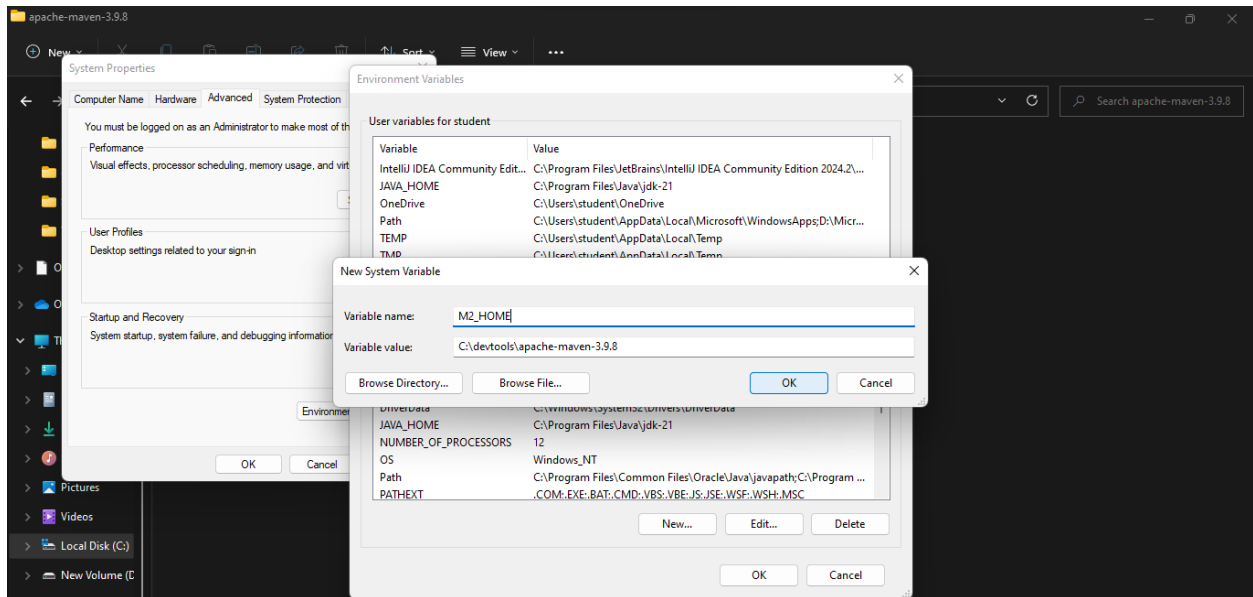
Step 13 : Jenkins is ready.



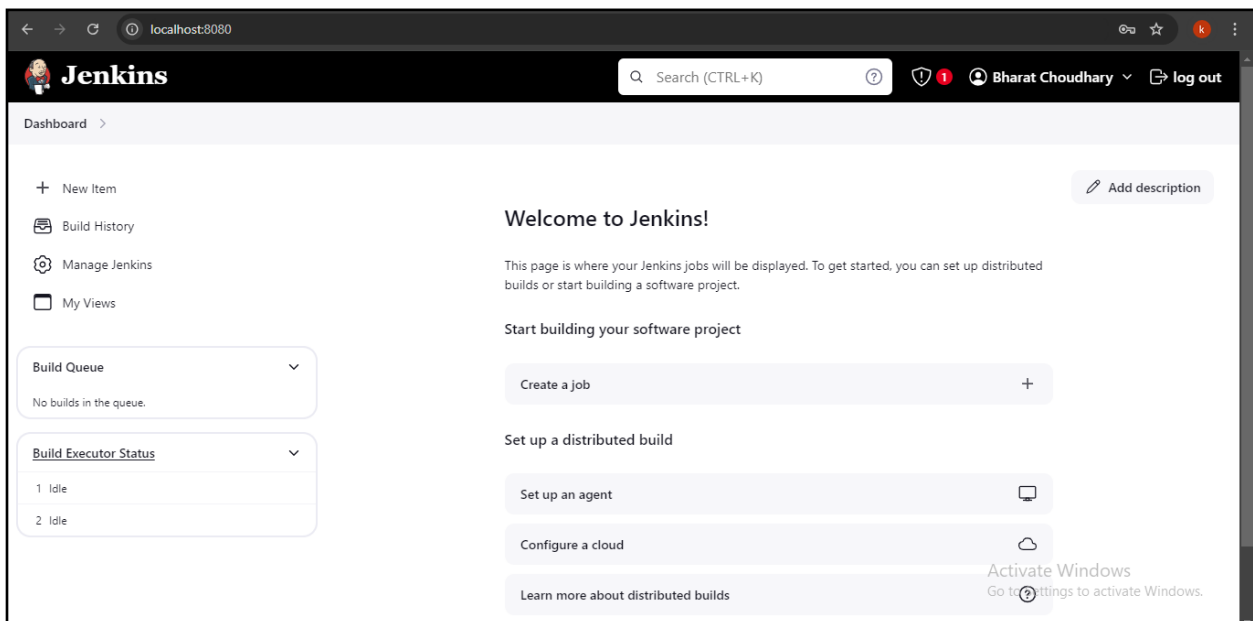
Step 14 : Download Maven.



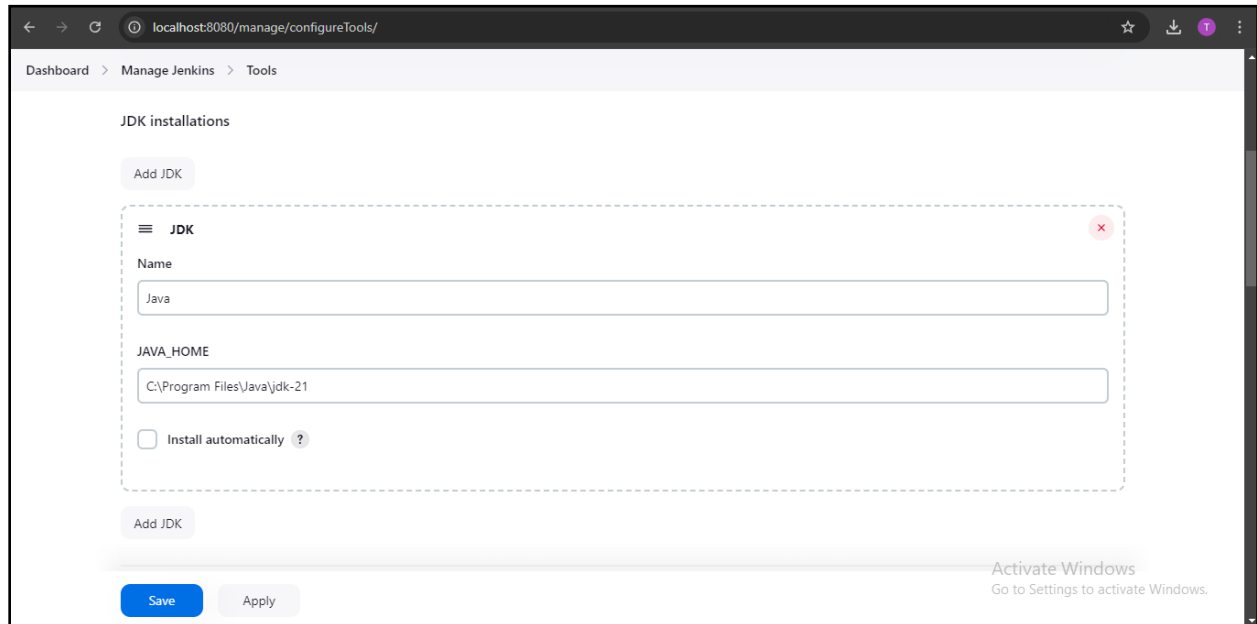
Step 15 : Extract it in new folder devtools, then set environment variables.



Step 16 : Jenkins dashboard.



Step 17 : Configure JDK path in Jenkins.



The screenshot shows the Jenkins 'Tools' configuration page for 'JDK installations'. The breadcrumb navigation is 'Dashboard > Manage Jenkins > Tools'. There is an 'Add JDK' button at the top left. A dashed box contains the configuration for a new JDK installation. Inside the box, there is a 'JDK' header with a menu icon and a red close button. Below the header, there is a 'Name' field with the value 'Java', a 'JAVA_HOME' field with the value 'C:\Program Files\Java\jdk-21', and an 'Install automatically' checkbox which is unchecked. Below the dashed box is another 'Add JDK' button. At the bottom of the page are 'Save' and 'Apply' buttons. An 'Activate Windows' watermark is visible in the bottom right corner.

Dashboard > Manage Jenkins > Tools

JDK installations

Add JDK

JDK

Name

Java

JAVA_HOME

C:\Program Files\Java\jdk-21

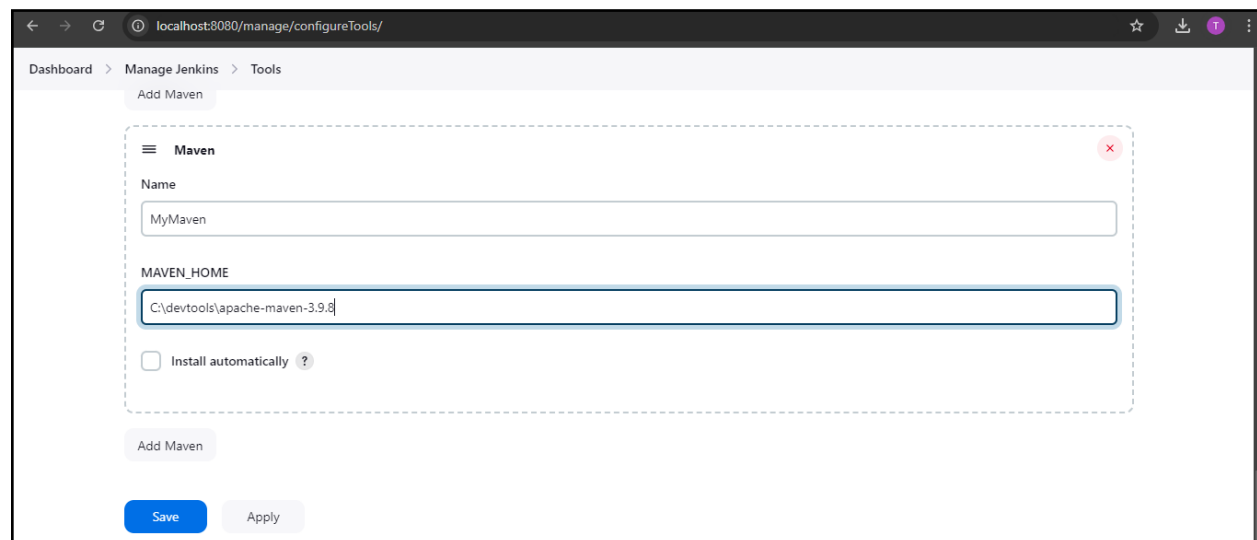
☐ Install automatically ?

Add JDK

Save Apply

Activate Windows
Go to Settings to activate Windows.

Step 18 : Configure Maven path in Jenkins.



The screenshot shows the Jenkins 'Tools' configuration page for 'Maven'. The breadcrumb navigation is 'Dashboard > Manage Jenkins > Tools'. There is an 'Add Maven' button at the top left. A dashed box contains the configuration for a new Maven installation. Inside the box, there is a 'Maven' header with a menu icon and a red close button. Below the header, there is a 'Name' field with the value 'MyMaven', a 'MAVEN_HOME' field with the value 'C:\devtools\apache-maven-3.9.8', and an 'Install automatically' checkbox which is unchecked. Below the dashed box is another 'Add Maven' button. At the bottom of the page are 'Save' and 'Apply' buttons.

Dashboard > Manage Jenkins > Tools

Add Maven

Maven

Name

MyMaven

MAVEN_HOME

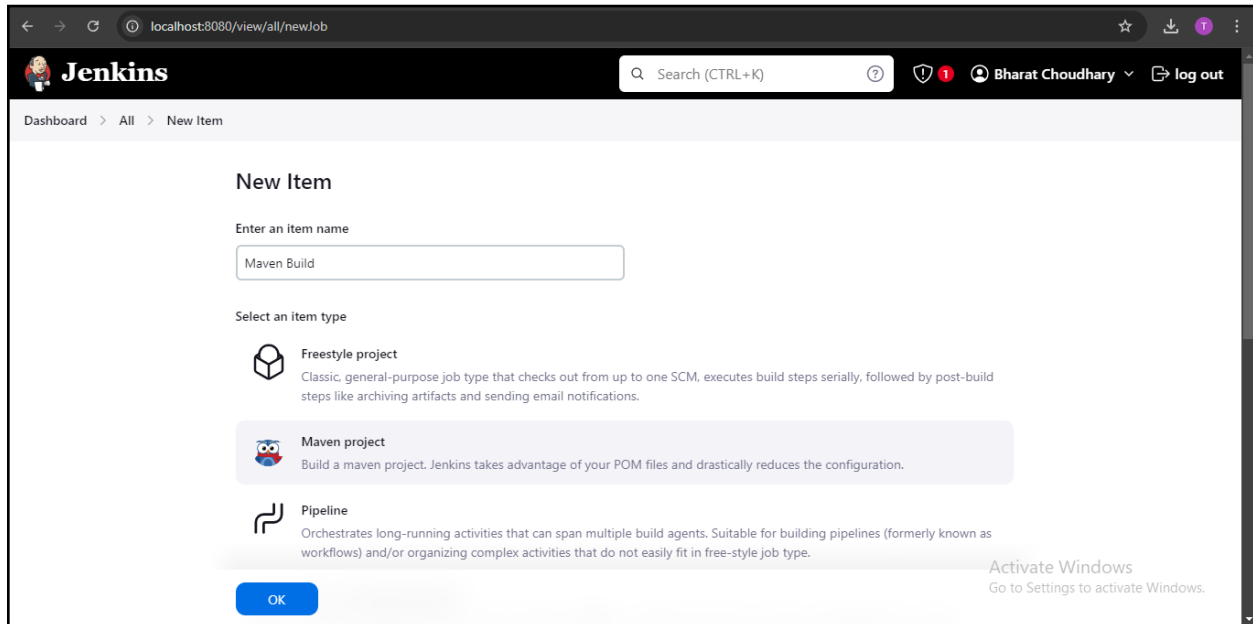
C:\devtools\apache-maven-3.9.8

☐ Install automatically ?

Add Maven

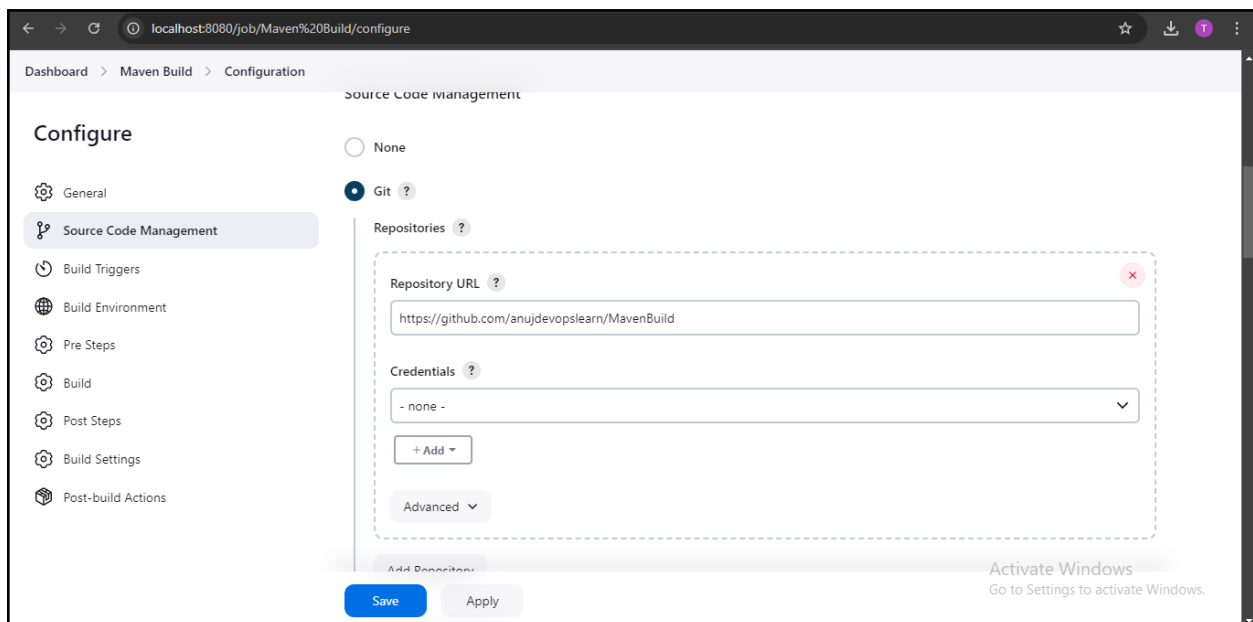
Save Apply

Step 19 : Click on new item, enter item name and select maven project.



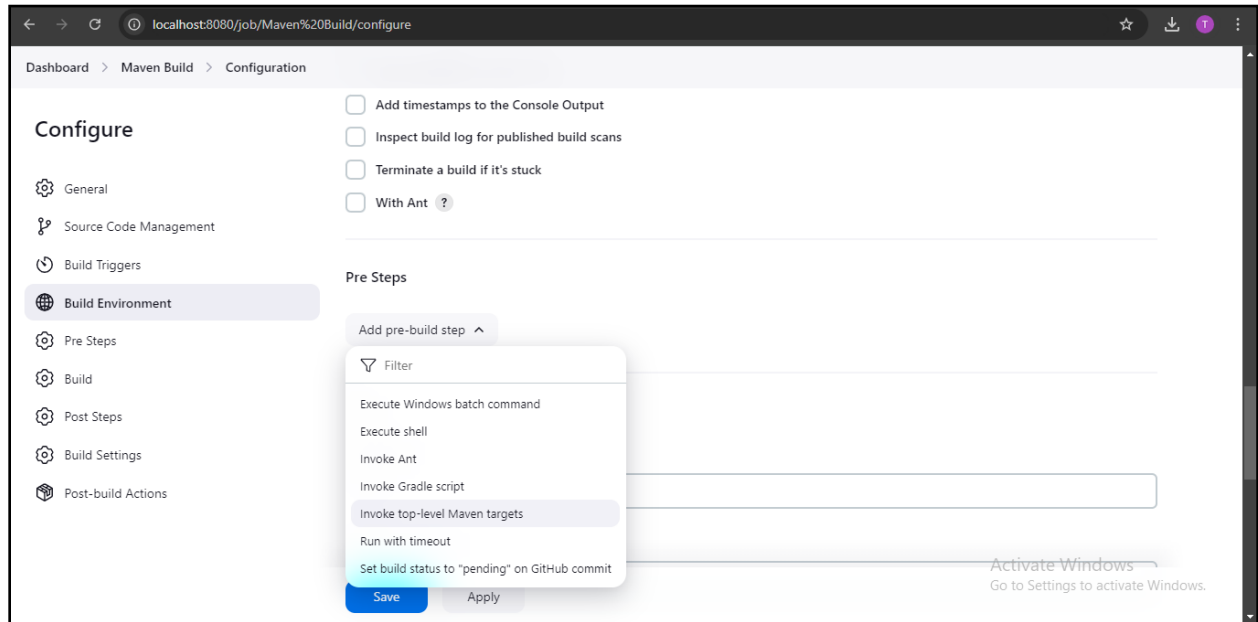
The screenshot shows the Jenkins 'New Item' page. The browser address bar indicates the URL is localhost:8080/view/all/newJob. The Jenkins logo and a search bar are at the top. The breadcrumb trail is 'Dashboard > All > New Item'. The main heading is 'New Item'. Below it, there is a text input field for 'Enter an item name' containing 'Maven Build'. Under 'Select an item type', three options are listed: 'Freestyle project' (Classic, general-purpose job type), 'Maven project' (Build a maven project. Jenkins takes advantage of your POM files and drastically reduces the configuration.), and 'Pipeline' (Orchestrates long-running activities that can span multiple build agents). The 'Maven project' option is highlighted with a blue background. An 'OK' button is at the bottom left. An 'Activate Windows' watermark is visible in the bottom right corner.

Step 20 : In project configuration, add a GitHub repository.

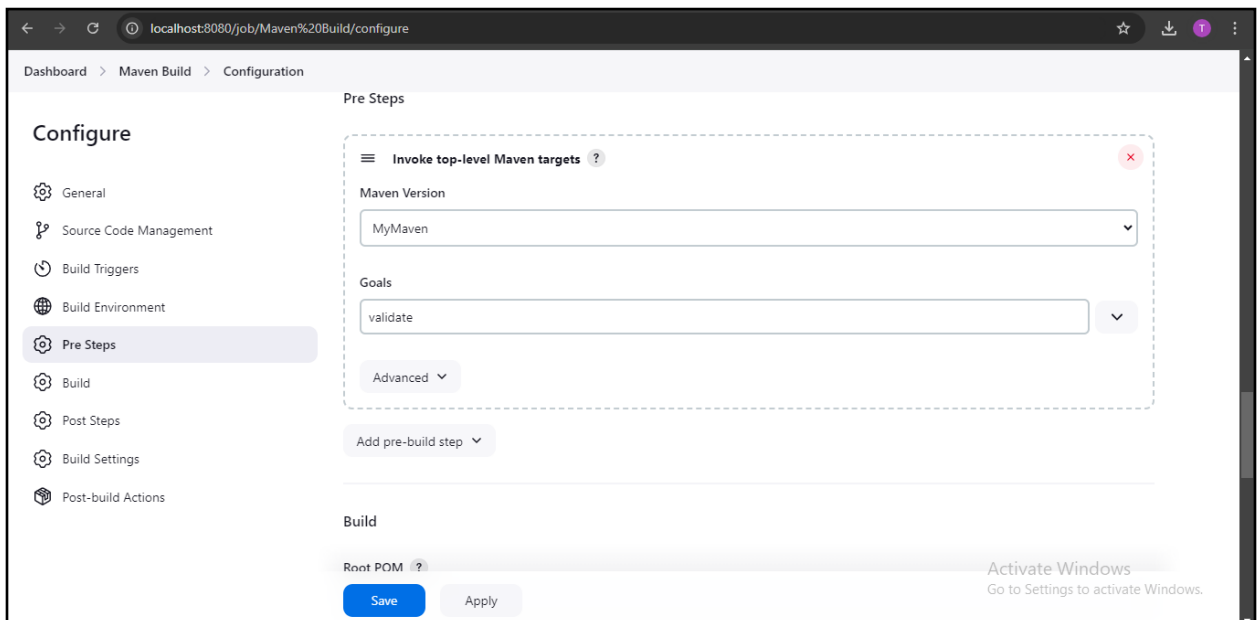


The screenshot shows the Jenkins 'Configuration' page for the 'Maven Build' job. The browser address bar indicates the URL is localhost:8080/job/Maven%20Build/configure. The breadcrumb trail is 'Dashboard > Maven Build > Configuration'. The main heading is 'Configure'. On the left, a sidebar lists configuration sections: 'General', 'Source Code Management' (selected), 'Build Triggers', 'Build Environment', 'Pre Steps', 'Build', 'Post Steps', 'Build Settings', and 'Post-build Actions'. The 'Source Code Management' section is expanded, showing radio buttons for 'None' and 'Git' (selected). Below, there is a 'Repositories' section with a dashed border. It contains a 'Repository URL' input field with the value 'https://github.com/anujdevopslearn/MavenBuild', a 'Credentials' dropdown menu set to '- none -', and an '+ Add' button. An 'Advanced' dropdown is also visible. At the bottom, there are 'Save' and 'Apply' buttons. An 'Activate Windows' watermark is visible in the bottom right corner.

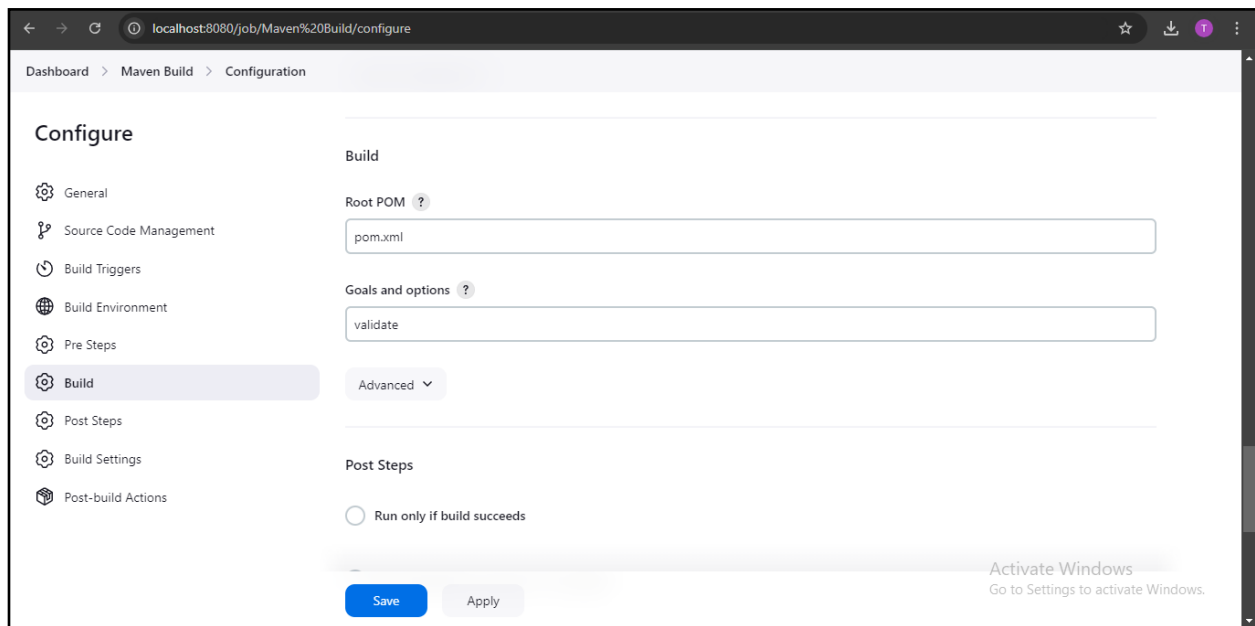
Step 21 : Click invoke top-level maven targets.



Step 22 : Set up pre-steps.



Step 23 : Set root POM and goal, apply and save.

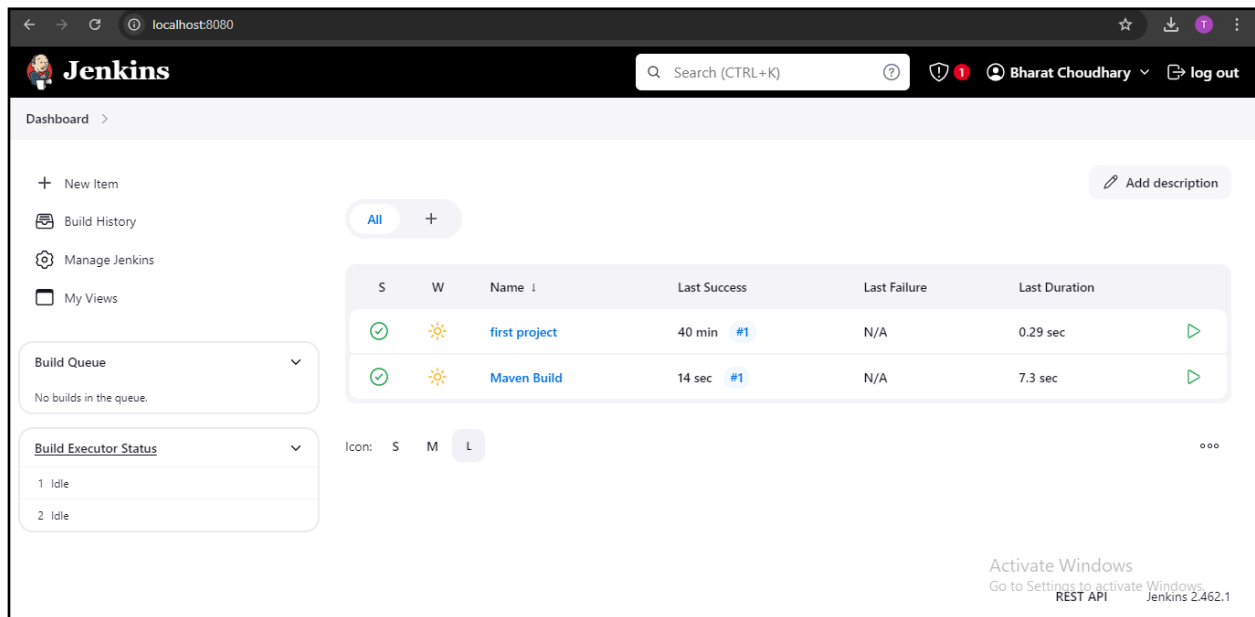


The screenshot shows the Jenkins Configuration page for a Maven Build job. The left sidebar contains a list of configuration categories: General, Source Code Management, Build Triggers, Build Environment, Pre Steps, Build, Post Steps, Build Settings, and Post-build Actions. The 'Build' category is selected and highlighted. The main content area is titled 'Configure' and contains the following fields:

- Root POM**: A text input field containing 'pom.xml'.
- Goals and options**: A text input field containing 'validate'.
- Advanced**: A dropdown menu currently set to 'Advanced'.
- Post Steps**: A section with a radio button labeled 'Run only if build succeeds'.

At the bottom of the configuration area, there are two buttons: 'Save' and 'Apply'. An 'Activate Windows' watermark is visible in the bottom right corner.

Step 24 : Finally project build is successful.



The screenshot shows the Jenkins Dashboard. The top navigation bar includes the Jenkins logo, a search bar, and user information for 'Bharat Choudhary'. The left sidebar contains links for 'New Item', 'Build History', 'Manage Jenkins', and 'My Views'. The main content area displays a table of build history with the following columns: S, W, Name, Last Success, Last Failure, and Last Duration.

S	W	Name	Last Success	Last Failure	Last Duration
✓	☀	first project	40 min #1	N/A	0.29 sec
✓	☀	Maven Build	14 sec #1	N/A	7.3 sec

Below the table, there is a section for 'Build Queue' showing 'No builds in the queue.' and a 'Build Executor Status' section showing two idle executors. An 'Activate Windows' watermark is visible in the bottom right corner.