# Experiment No: 4

Roll Number 121A3002

AIM: Installation of Jenkins with Maven/Ant/Gradle, GitHub and Python Plugins to setup a build Job.

THEORY: Jenkins is a free and open source automation server. It helps automate the parts of software development related to building, testing, and deploying, facilitating continuous integration and continuous delivery. It is a server-based system that runs in servlet containers such as Apache Tomca

Installation process of Jenkins

Install Java : Jdk 1.8 or Java 11.

Set environment variable : path and JAVA_HOME
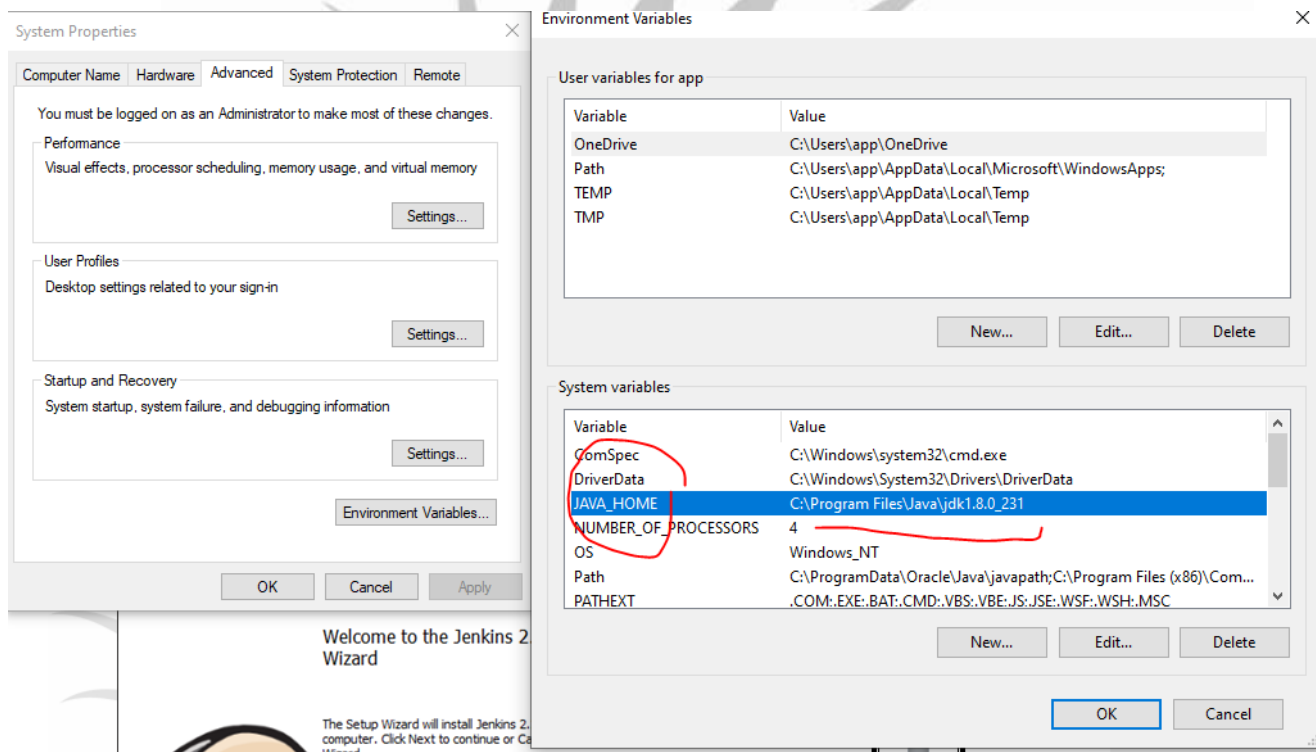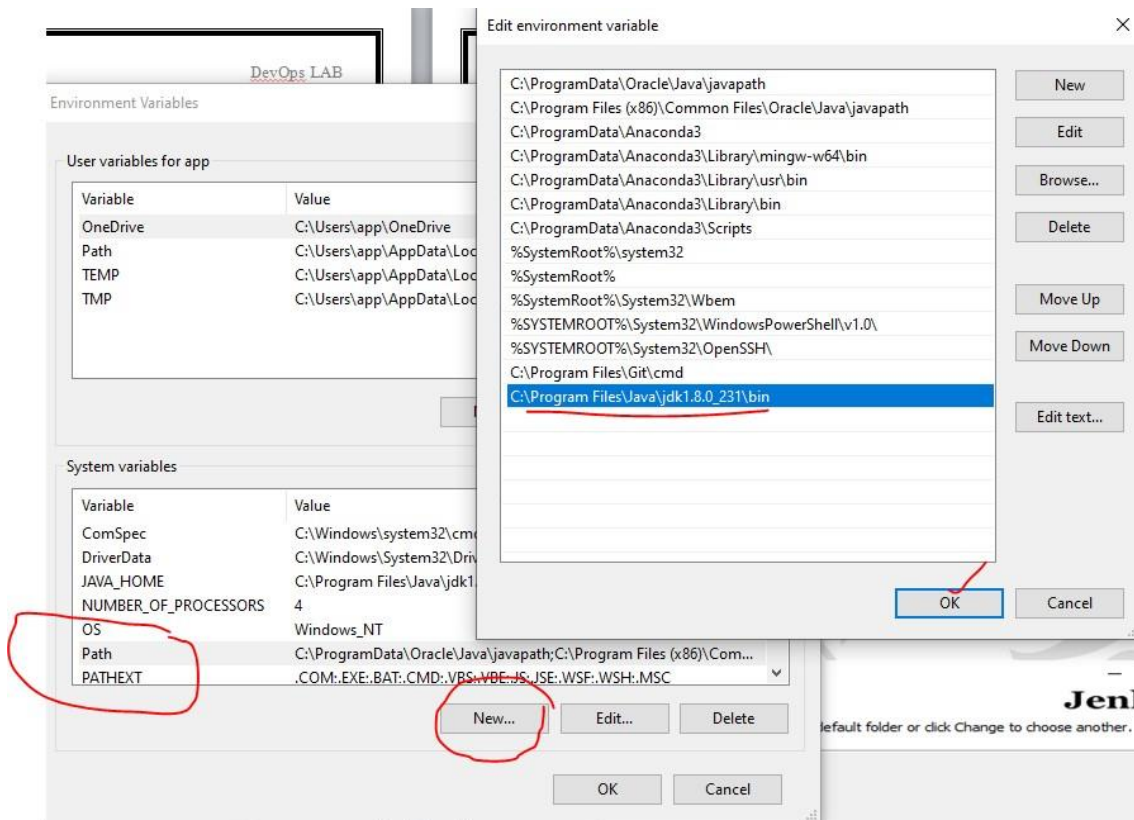
Step 1) Got to https://www.jenkins.io/download/ and select the platform. In our case Windows

Step 2) Go to download location from local computer and unzip the downloaded package. Double-click on unzipped jenkins.msi. You can also Jenkin using a WAR (Web application ARchive) but that is not recommended.

Step 3) In the Jenkin Setup screen, click Next.

Step 4) Choose the location where you want to have the Jenkins instance installed (default location is C:\Program Files (x86)\Jenkins), then click on Next button.
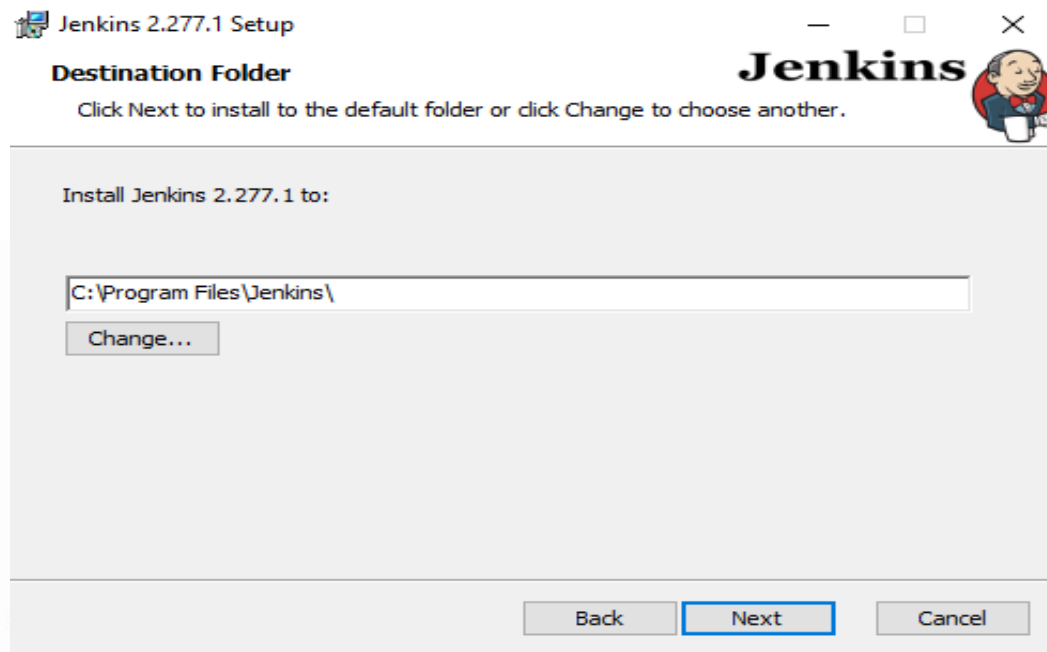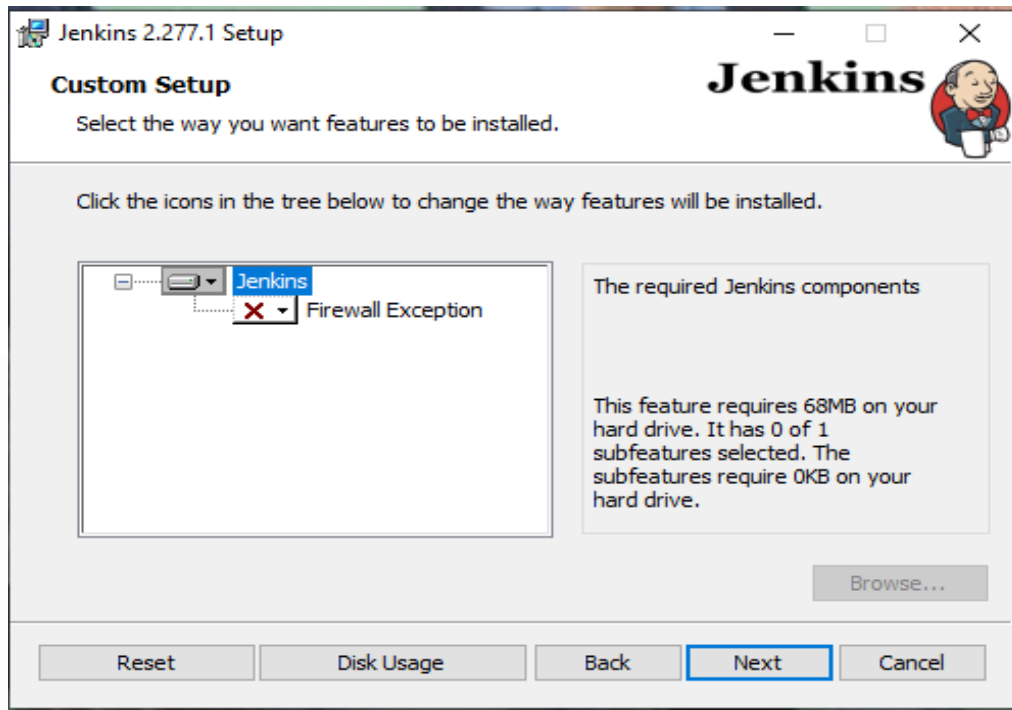
Here, Select Logon type as ' Run service as LocalSystem(Windows equivalent root)

Step 5)Click on the Install button.

Jenkins 2.277.1 Setup

Port Selection
  Choose a port for the service.

Please choose a port.

Port Number (1-65535):
8080

Test Port   ✔

It is recommended that you accept the selected default port.

Back   Next   Cancel

Jenkins 2.277.1 Setup

Jenkins 2.277.1 Setup
  Select Java home directory (JDK or JRE)

Please select the path of a Java Development Kit or Java Runtime Environment.
Only Java 1.8 and 11 are supported by Jenkins.

C:\Program Files\Java\jdk-11.0.1\

Change...

Back   Next   Cancel

Step 6) Once install is complete, click Finish.

Step 7) During the installation process an info panel may pop-up to inform the user that for a complete setup, the system should be rebooted at the end of the current installation. Click on OK button when the Info panel is popping-up:

How to Unblock Jenkins?

After completing the Jenkins installation phase, you should proceed further and start its configuration. Next steps will guide you how you can unblock Jenkins application:

Step 1) After completing the Jenkins installation process, a browser tab will pop-up asking for the initial Administrator password. To access Jenkins, you need to go to browse the following path in your web browser. http://localhost:8080
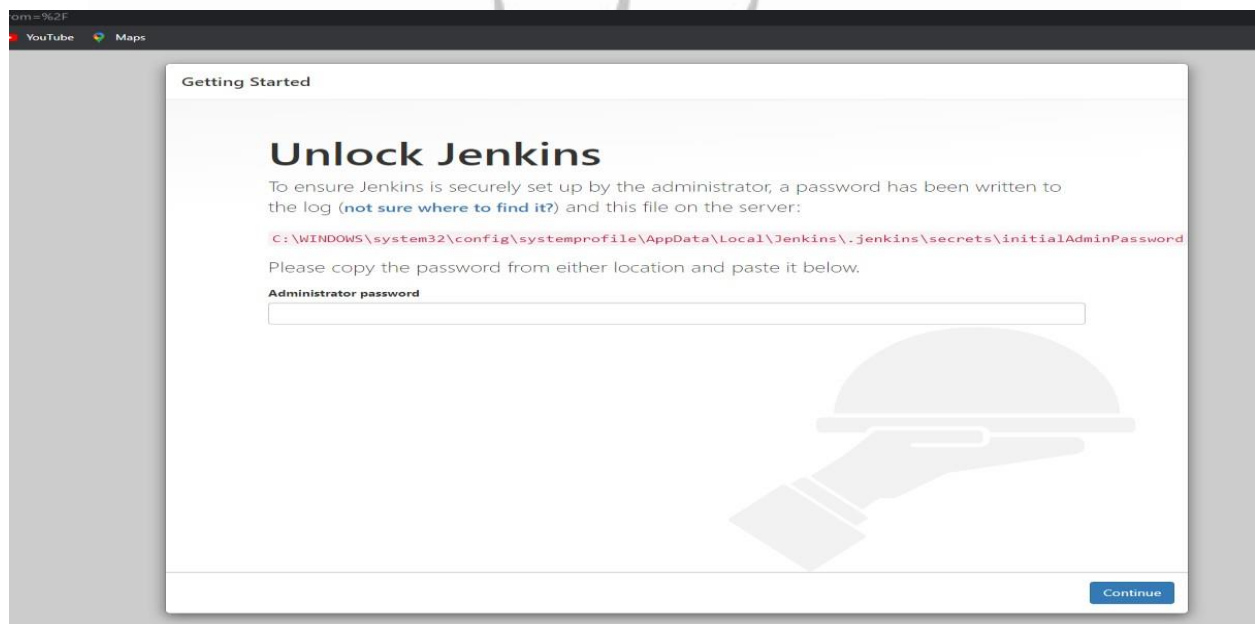
If you can access the above URL, then it confirms that Jenkins is successfully installed in your system.

Step 2) The initial Administrator password should be found under the Jenkins installation path (set at Step 4 in Jenkins Installation).

For default installation location to C:\Program Files (x86)\Jenkins, a file called initialAdminPassword can be found under C:\Program Files (x86)\Jenkins\secrets.

However, If a custom path for Jenkins installation was selected, then you should check that location for initialAdminPassword file.

This PC > OS (C:) > Windows > System32 > config > systemprofile > AppData > Local > Jenkins > .jenkins > secrets

Name	Date modified	Type	Size
filepath-filters.d	16-03-2021 12:24	File folder	
whitelisted-callables.d	16-03-2021 12:24	File folder	
initialAdminPassword	16-03-2021 12:24	File	1 KB
jenkins.model.Jenkins.crumbSalt	16-03-2021 12:24	CRUMBSALT File	1 KB
master.key	16-03-2021 12:24	KEY File	1 KB
org.jenkinsci.main.modules.instance_ide...	16-03-2021 12:24	KEY File	1 KB
slave-to-master-security-kill-switch	16-03-2021 12:24	File	1 KB

Step 3) Open the highlighted file and copy the content of the initialAdminPassword file.

initialAdminPassword - Notepad

File   Edit   Format   View   Help

f04255b2301d4f2fa987e13d910c1038
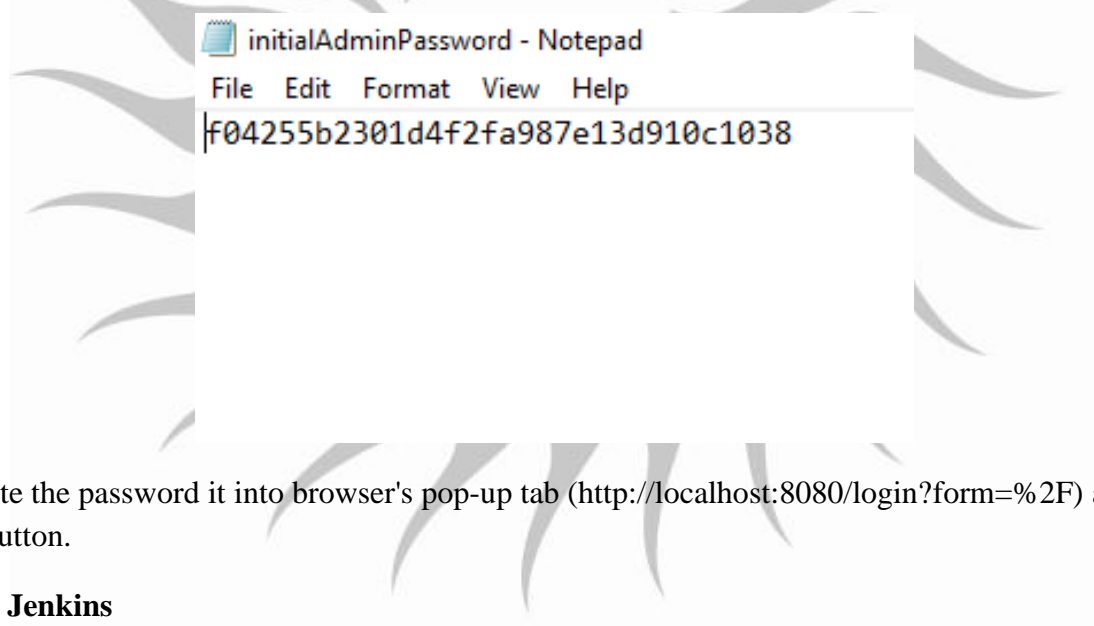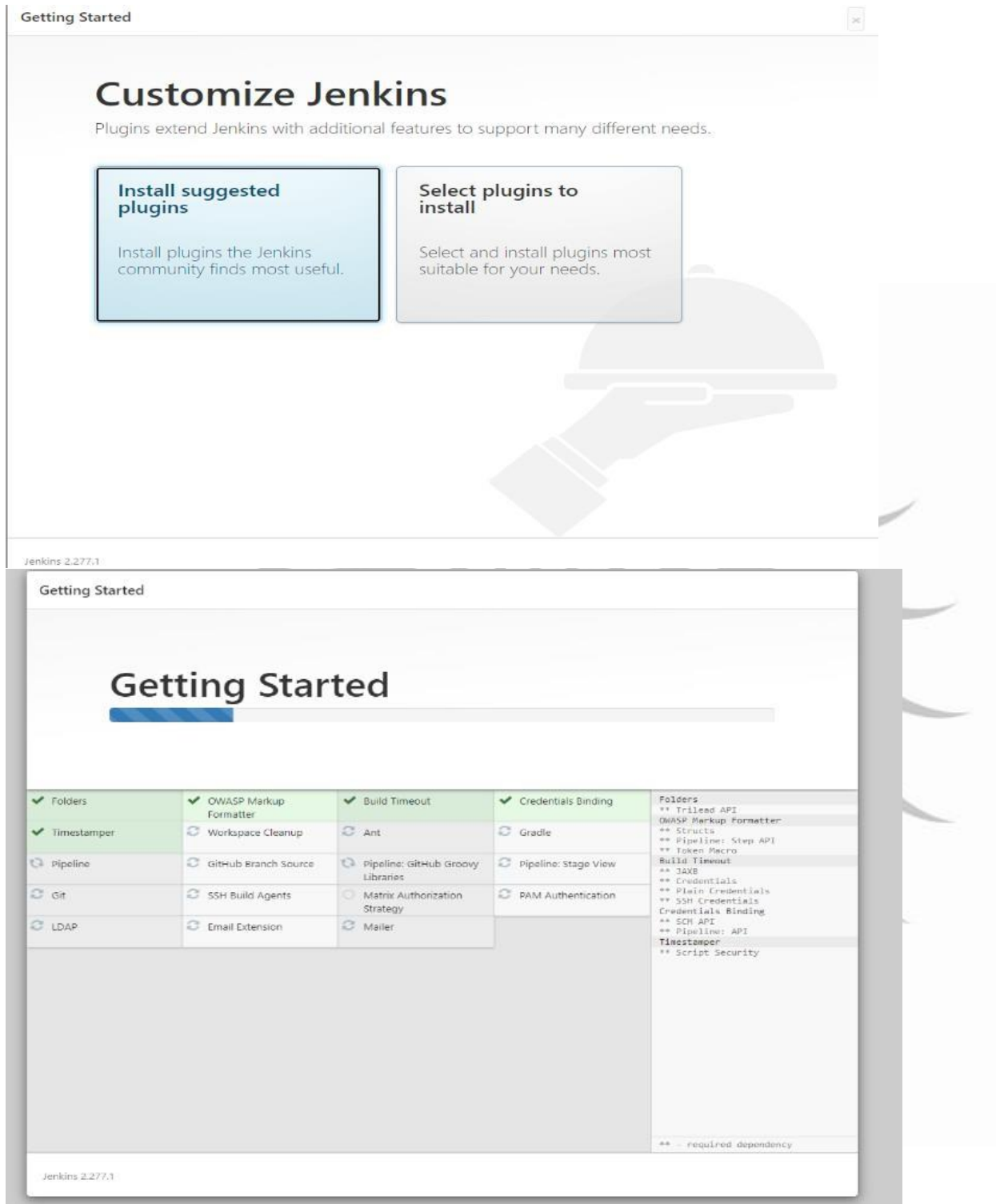
Step 4) Paste the password it into browser's pop-up tab (http://localhost:8080/login?form=%2F) and click on Continue button.

Customize Jenkins

You can also customize your Jenkins environment by below-given steps:

Step 1) Click on the "Install suggested plugins button" so Jenkins will retrieve and install the essential plugins

Jenkins will start to download and install all the necessary plugins needed to create new Jenkins Jobs.

Note: You can choose the Option "Select Plugins to Install" and select the plugins you want to install

Step 2) After all suggested plugins were installed, the "Create First Admin User" panel will show up. Fill all the fields with desired account details and hit the "Save and Finish" button.

Getting Started

Create First Admin User

Username:

Password:

Confirm password:

Full name:

E-mail address:

Jenkins 2.277.1   Skip and continue as admin   Save and Continue

Step 3) Once you have filled the above data, finally it will ask for URL information where you can configure the default instance path for Jenkins. Leave it as it is to avoid any confusion later. However, if another application is already using 8080 port, you can use another port for Jenkins and finally save the settings, and you are done with installation of Jenkins. Hit the "Save and Continue" button:

Getting Started
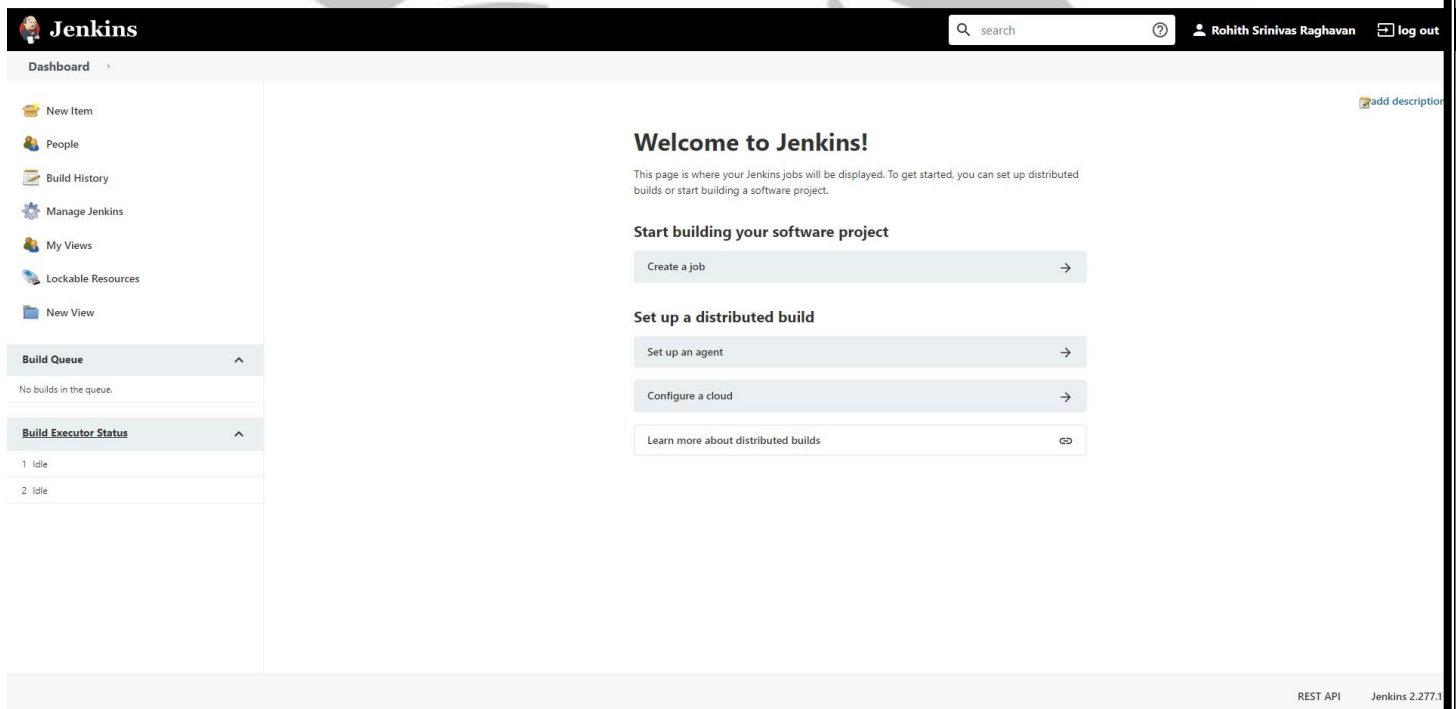
Jenkins is ready!

Your Jenkins setup is complete.

Start using Jenkins

We have successfully installed a new Jenkins Server. Hit the "Start using Jenkins" button.

Below you can find the Jenkins instance up and run, ready to create first Jenkins jobs:

Jenkins

Q search   ⑦   👤 **Rohith Srinivas Raghavan**   ⤴ **log out**

Dashboard →

- 📁 New Item
- 👥 People
- 📋 Build History
- ⚙️ Manage Jenkins
- 👥 My Views
- 🔒 Lockable Resources
- 📁 New View

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 | ↗ |

REST API   Jenkins 2.277.1

Installation of Maven Integration Plugins:

Likewise, put the screenshot of other installed plugins mentioned in the aim.

Conclusion:- Hence we have successfully installed Jenkins