

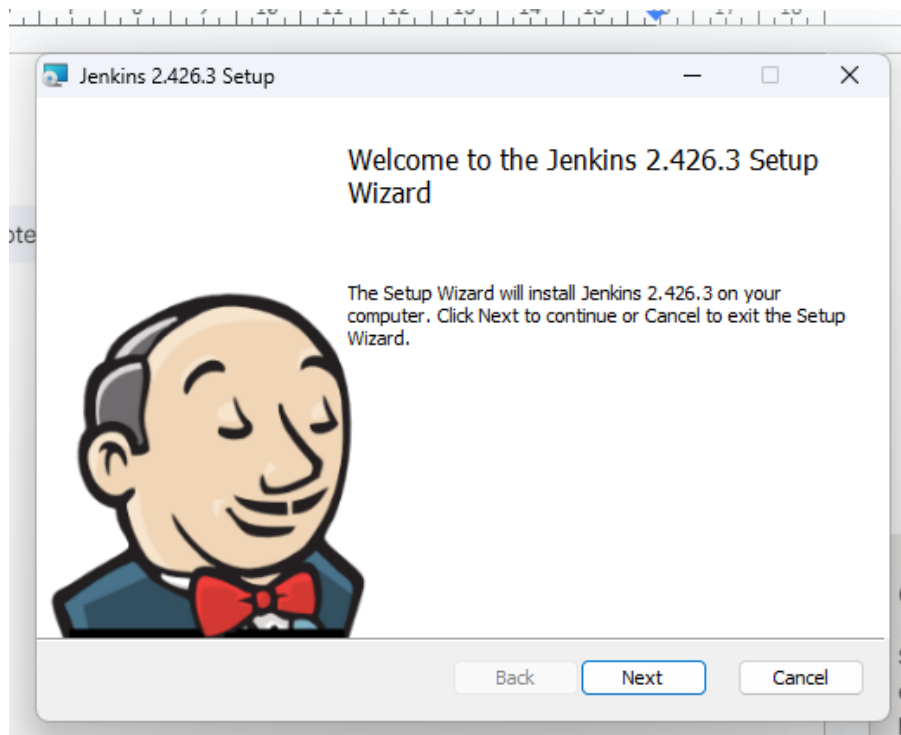
## EXPERIMENT – 4

**AIM** - To understand Continuous Integration, install and configure Jenkins with Maven/Ant/Gradle to setup a build Job

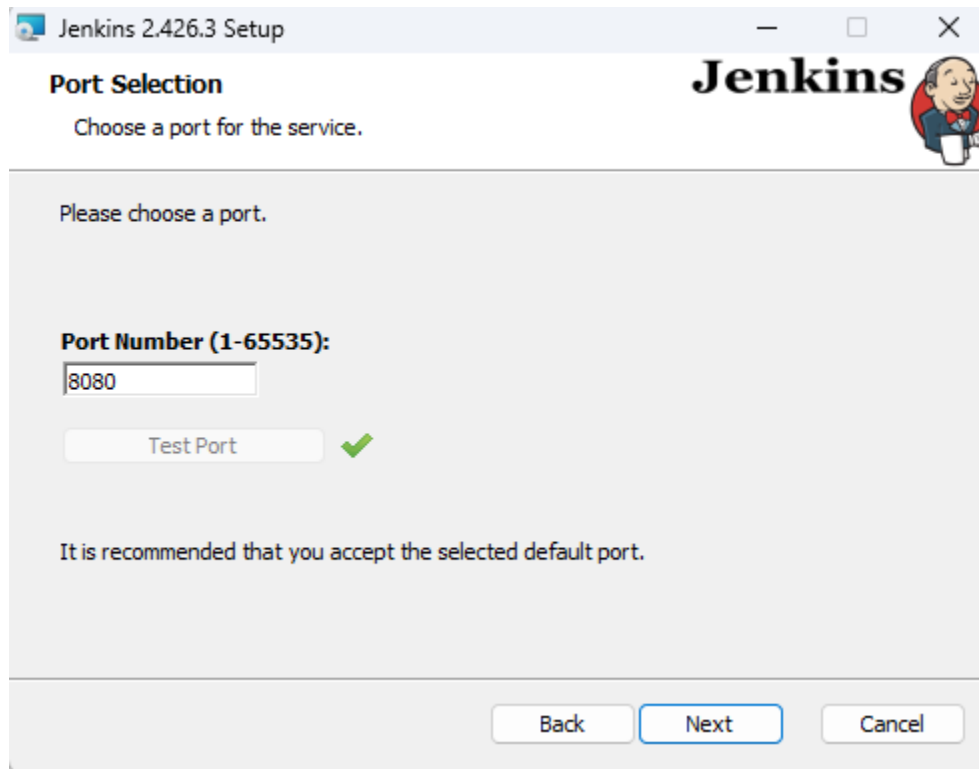
### **THEORY:**

Jenkins is an open-source automation tool written in Java with plugins built for Continuous Integration purpose. Jenkins is used to build and test your software projects continuously making it easier for developers to integrate changes to the project and making it easier for users to obtain a fresh build. It also allows you to continuously deliver your software by integrating with many testing and deployment technologies.

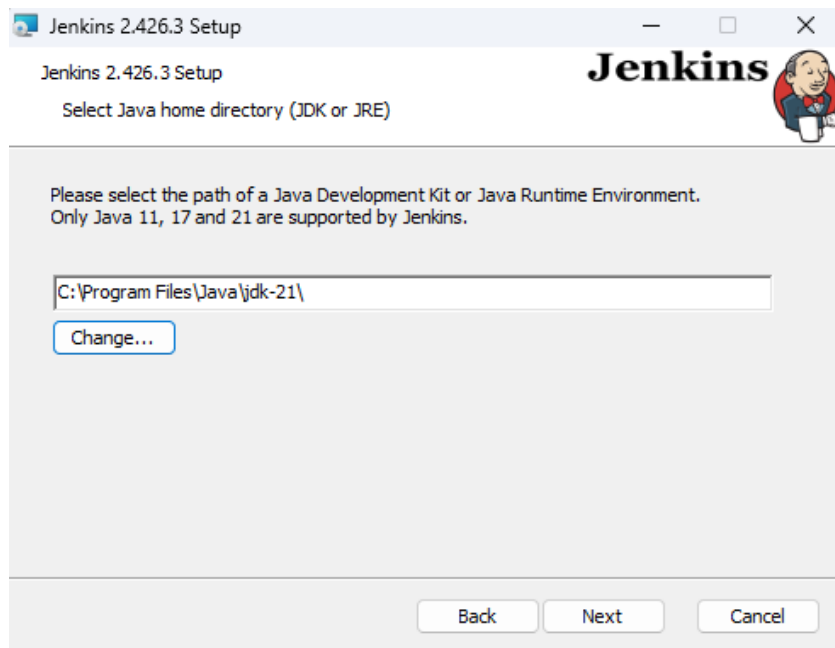
### **Step 1: Install Jenkins from website**



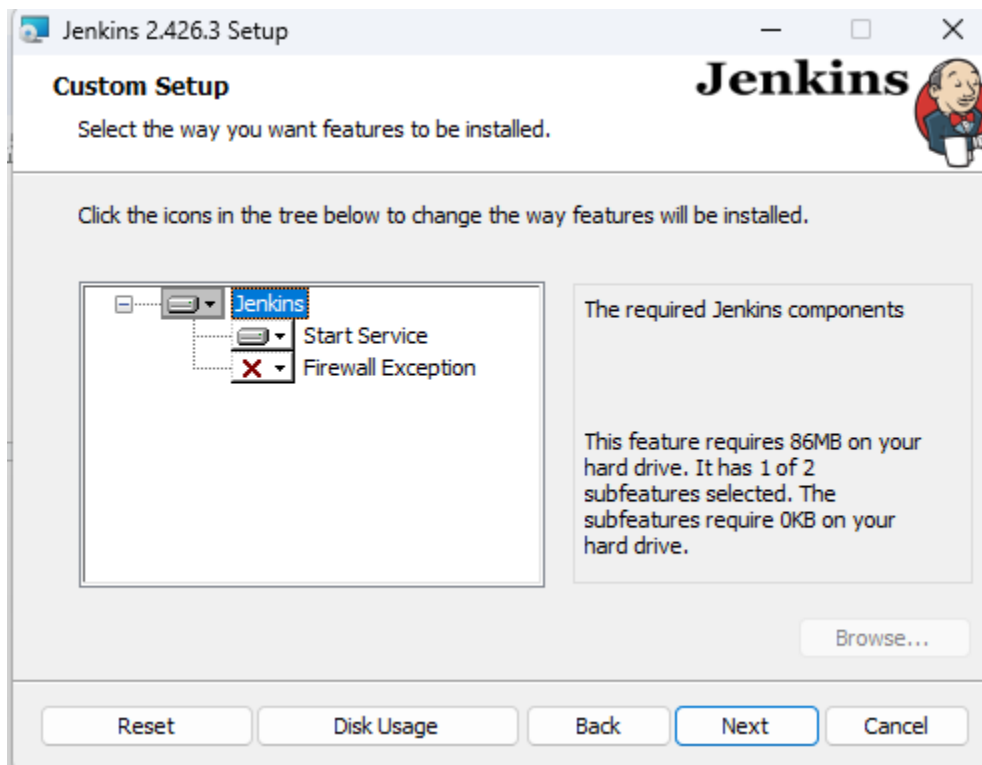
## Step 2: Select the desired options



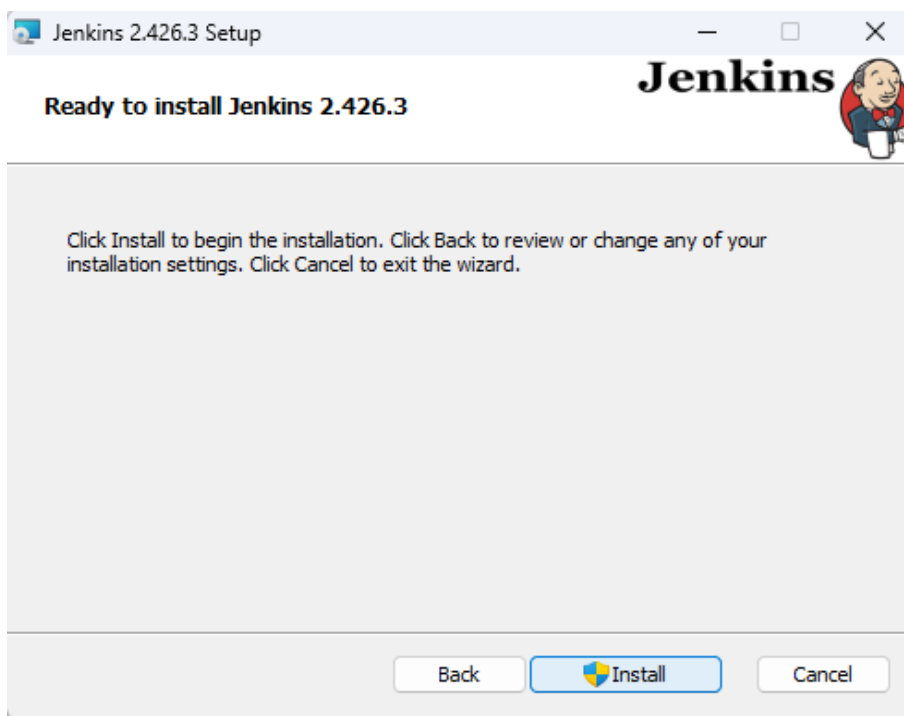
## Step 3: Select the files where jdk 21 is installed



#### Step 4: Select the desired options



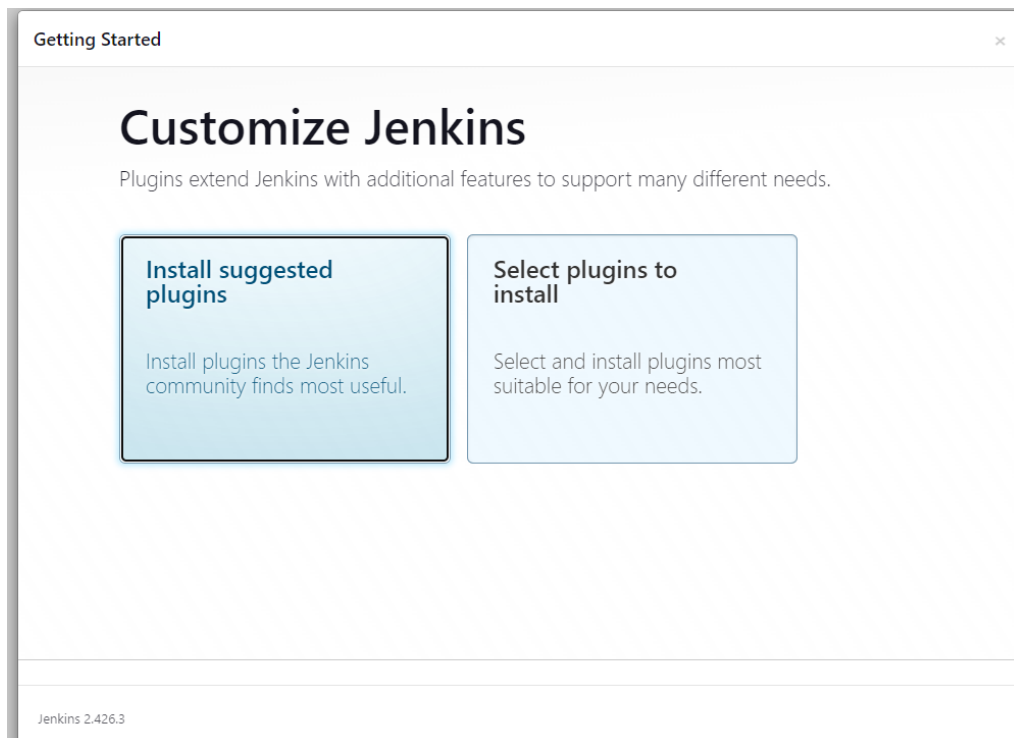
#### Step 5: Install the file



## Step 6: Installation is finished



## Step 7: Go on localhost:8080



## Step 8: Select the options and wait for a few minutes

Getting Started

# Getting Started

<input checked="" type="checkbox"/> Folders	<input checked="" type="checkbox"/> OWASP Markup Formatter	<input type="checkbox"/> Build Timeout	<input type="checkbox"/> Credentials Binding	** Icons API
<input type="checkbox"/> Timestampers	<input type="checkbox"/> Workspace Cleanup	<input type="checkbox"/> Ant	<input type="checkbox"/> Gradle	Folders
<input type="checkbox"/> Pipeline	<input type="checkbox"/> GitHub Branch Source	<input type="checkbox"/> Pipeline: GitHub Groovy Libraries	<input type="checkbox"/> Pipeline: Stage View	OWASP Markup Formatter
<input type="checkbox"/> Git	<input type="checkbox"/> SSH Build Agents	<input type="checkbox"/> Matrix Authorization Strategy	<input type="checkbox"/> PAM Authentication	
<input type="checkbox"/> LDAP	<input type="checkbox"/> Email Extension	<input type="checkbox"/> Mailer		

\*\* - required dependency

Jenkins 2.426.3

## Step 9: Fill the appropriate credentials

Getting Started

# Create First Admin User

Username

Password

Confirm password

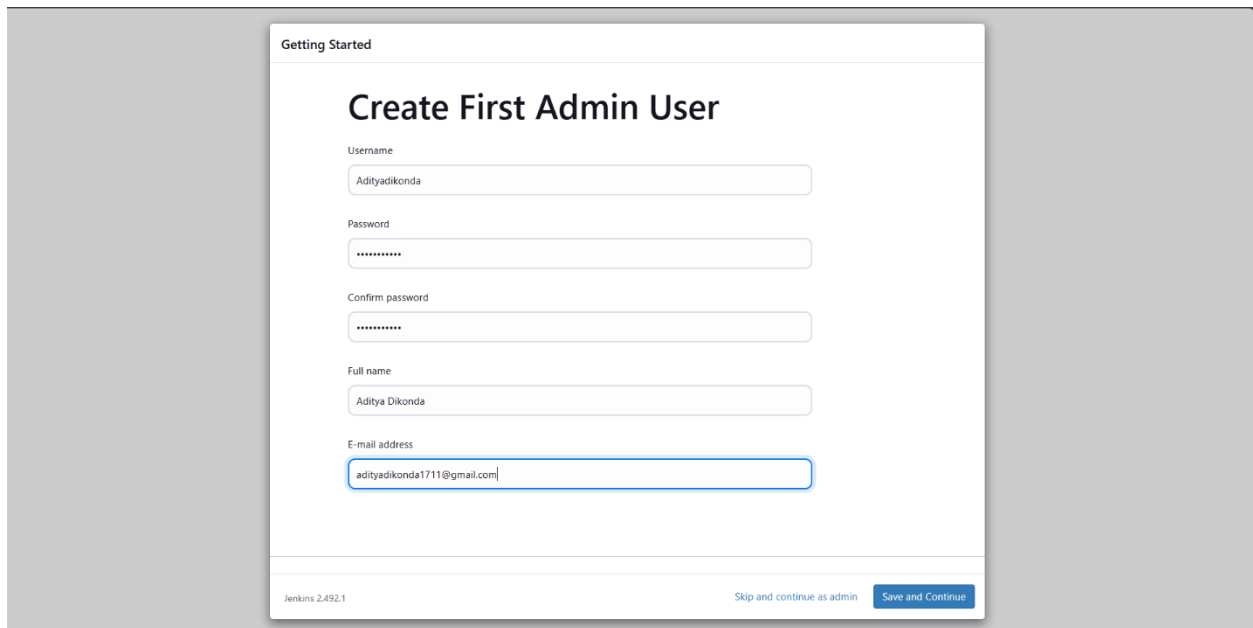
Full name

E-mail address

Jenkins 2.426.3

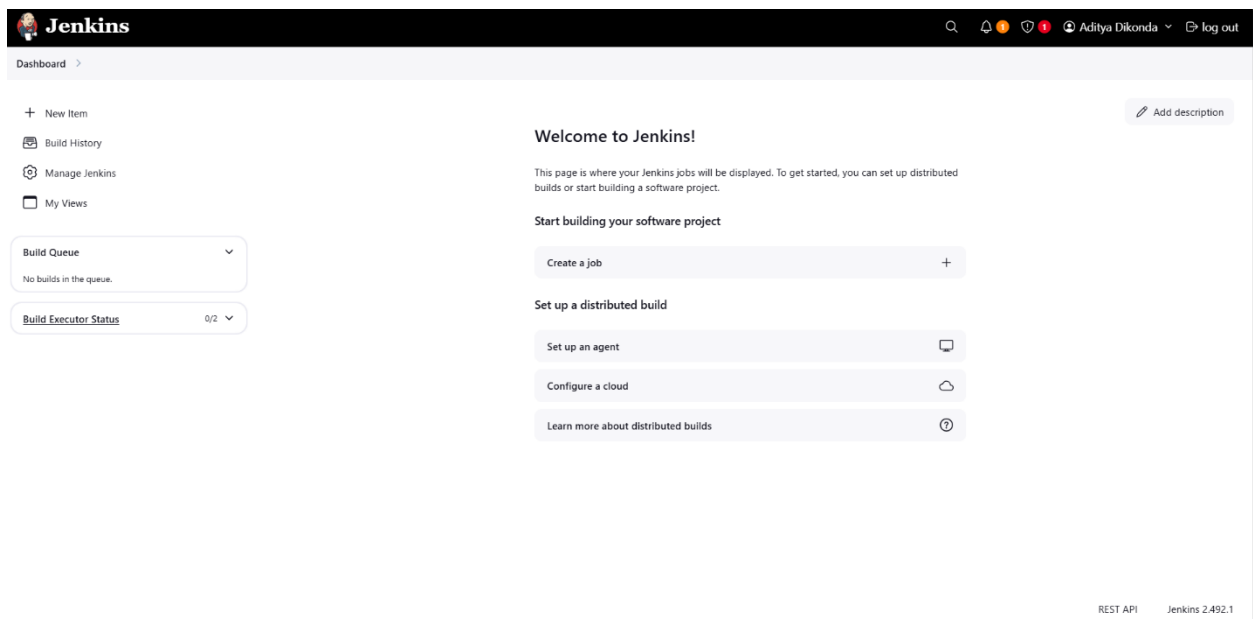
[Skip and continue as admin](#) [Save and Continue](#)

## Step 10:



The image shows the 'Getting Started' screen in Jenkins. The main heading is 'Create First Admin User'. Below this, there are five input fields: 'Username' (filled with 'Adityadikonda'), 'Password' (filled with '\*\*\*\*\*'), 'Confirm password' (filled with '\*\*\*\*\*'), 'Full name' (filled with 'Aditya Dikonda'), and 'E-mail address' (filled with 'adityadikonda1711@gmail.com'). At the bottom left, it says 'Jenkins 2.492.1'. At the bottom right, there are two buttons: 'Skip and continue as admin' and 'Save and Continue'.

## Step 11: Congratulations! You have created your Jenkins account



The image shows the Jenkins Dashboard. The top navigation bar includes the Jenkins logo, a search icon, a bell icon, a shield icon, a red exclamation mark icon, the user name 'Aditya Dikonda', and a 'log out' link. The main content area is divided into two columns. The left column contains a sidebar with links: '+ New Item', 'Build History', 'Manage Jenkins', and 'My Views'. Below these are two expandable sections: 'Build Queue' (showing 'No builds in the queue.') and 'Build Executor Status' (showing '0/2'). The right column features a 'Welcome to Jenkins!' message, followed by a paragraph explaining the dashboard's purpose. Below this, there are three sections: 'Start building your software project' with a 'Create a job' button, 'Set up a distributed build' with buttons for 'Set up an agent', 'Configure a cloud', and 'Learn more about distributed builds'. At the bottom right, there is a 'REST API' link and the version 'Jenkins 2.492.1'.

## CONCLUSION:

Jenkins with Maven simplifies Continuous Integration, automating builds and improving project efficiency for faster development cycles and higher software quality.