

## **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.

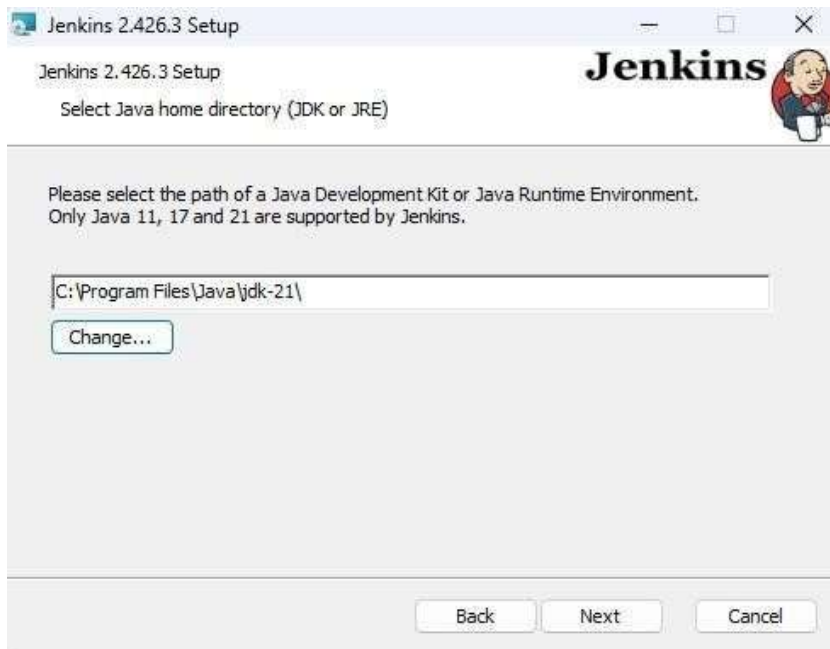
## Step 1: Install Jenkins from website



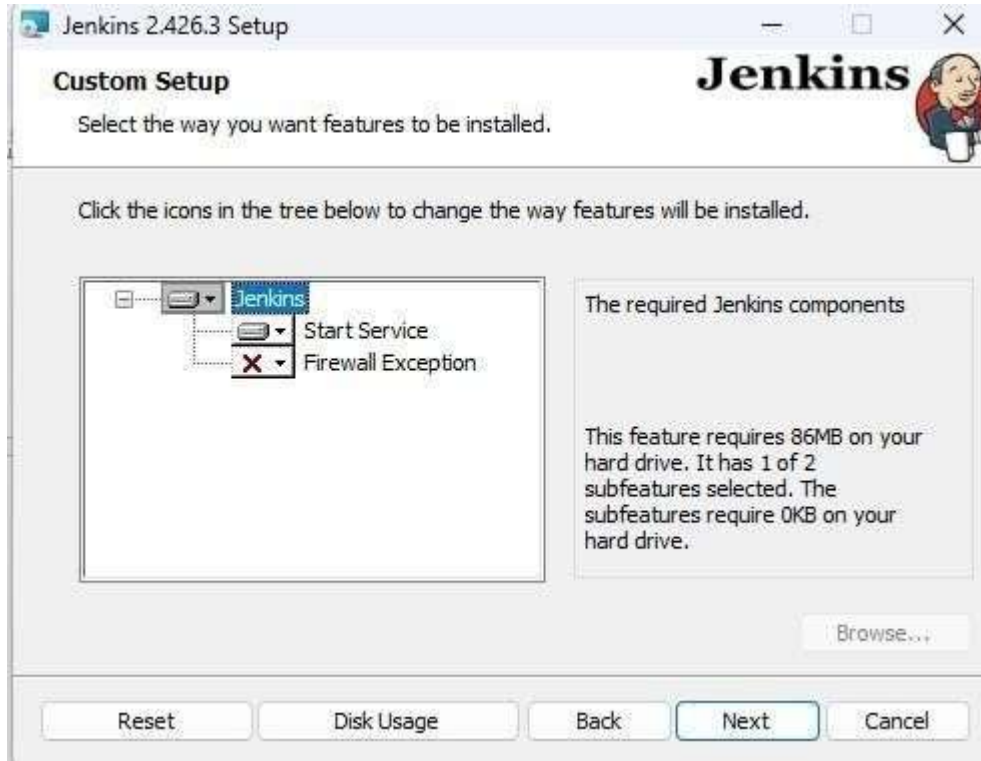
## Step 2: Select the desired options



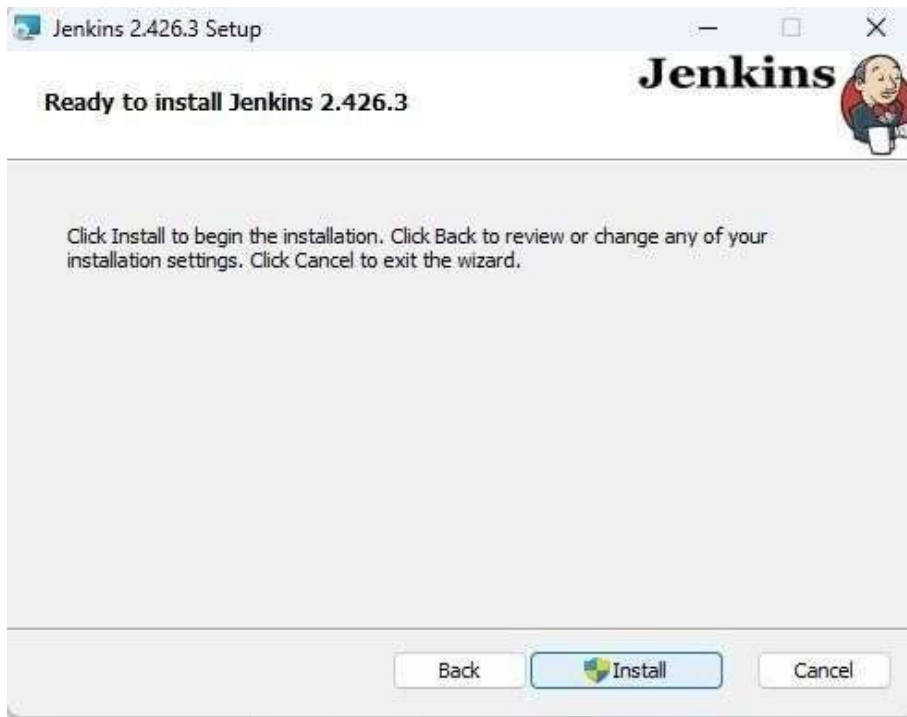
## Step 3: Select the files where jdk 21 is installed



## Step 4: Select the desired options



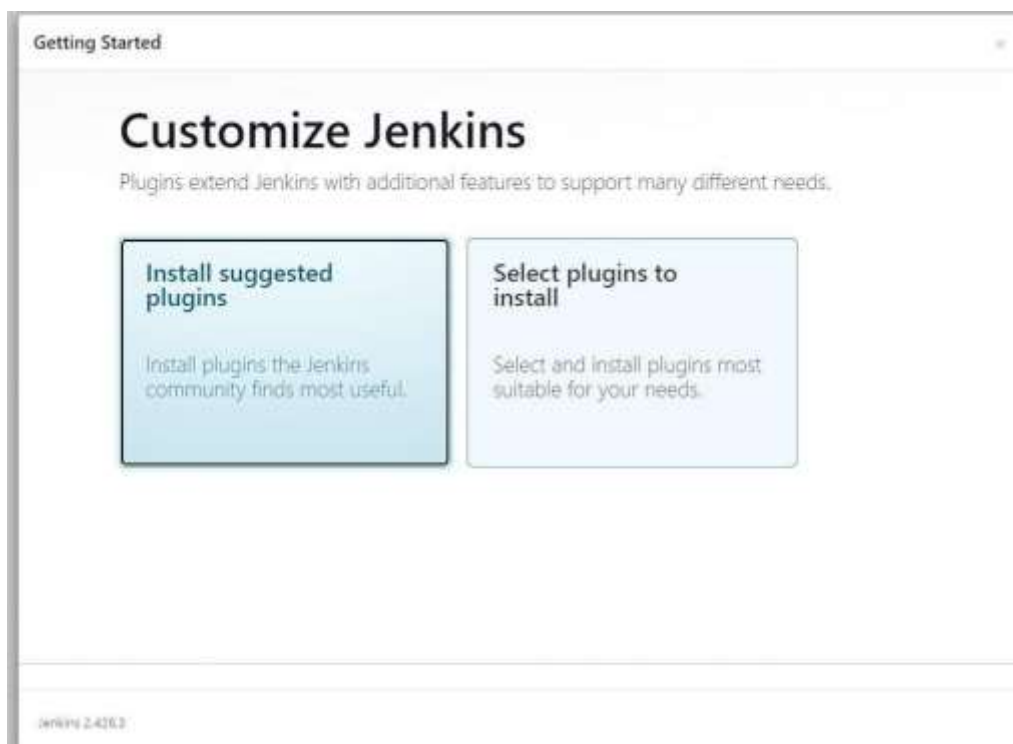
## Step 5: Install the file



## 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	Build Timeout	<input type="checkbox"/> Credentials Binding	<b>**</b> Sonicon: 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"/> RAK Authentication	
<input type="checkbox"/> LDAP	<input type="checkbox"/> Email Extension	<input type="checkbox"/> Mailer		

\*\* - requires dependency

Jenkins 2.426.3

Step 9: Fill the appropriate credentials

Getting Started

Create First Admin User

Username

Password

Confirm password

Full name

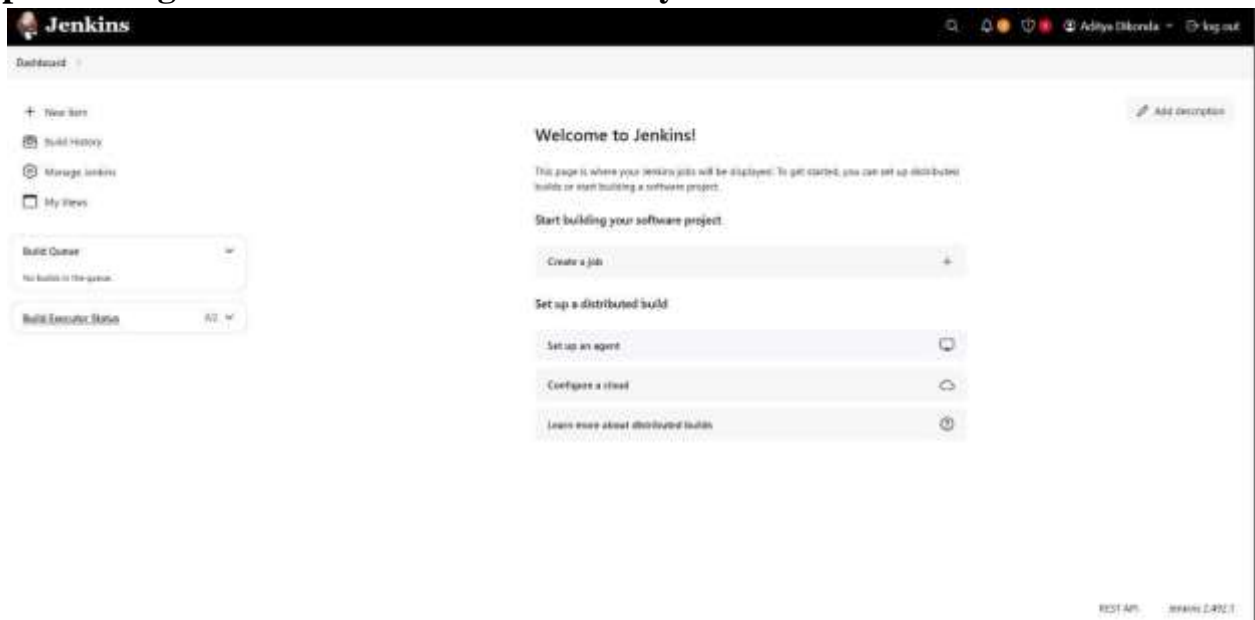
E-mail address

Jenkins 2.426.3

[Skip and continue as admin](#)

Save and Continue

## Step 10: Congratulations! You have created your Jenkins account



## CONCLUSION:

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