

EXPERIMENT-1

AIM: To write a code for a simple user registration form for an event.

PROGRAM:

HTML CODE:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>User Registration</title>
  <link rel="stylesheet" href="styles.css">
</head>
<body>
  <div class="container">
    <h2>User Registration</h2>
    <form action="/submit-registration" method="post">
      <div class="form-field">
        <label for="firstname">First Name:</label>
        <input type="text" id="firstname" name="firstname" required>
      </div>
      <div class="form-field">
        <label for="lastname">Last Name:</label>
        <input type="text" id="lastname" name="lastname" required>
      </div>
      <div class="form-field">
        <label for="mobile">Mobile Number:</label>
        <input type="tel" id="mobile" name="mobile" pattern="[0-9]{10}" required>
      </div>
      <div class="form-field">
        <label for="email">Email:</label>
        <input type="email" id="email" name="email" required>
      </div>
      <div class="form-field">
        <label for="password">Password:</label>
        <input type="password" id="password" name="password" required>
      </div>
      <div>
        <input type="checkbox" id="terms" name="terms" required>
        <label for="terms" class="terms-condition">I agree to the Terms &
Conditions</label>
      </div>
    </form>
  </div>
</body>
</html>
```

Laboratory Record of DevOps

Sheet No. 2
Experiment No. 01
Date _____

```
<input type="submit" value="Register">
</form>
</div>
</body>
</html>
```

CSS CODE:

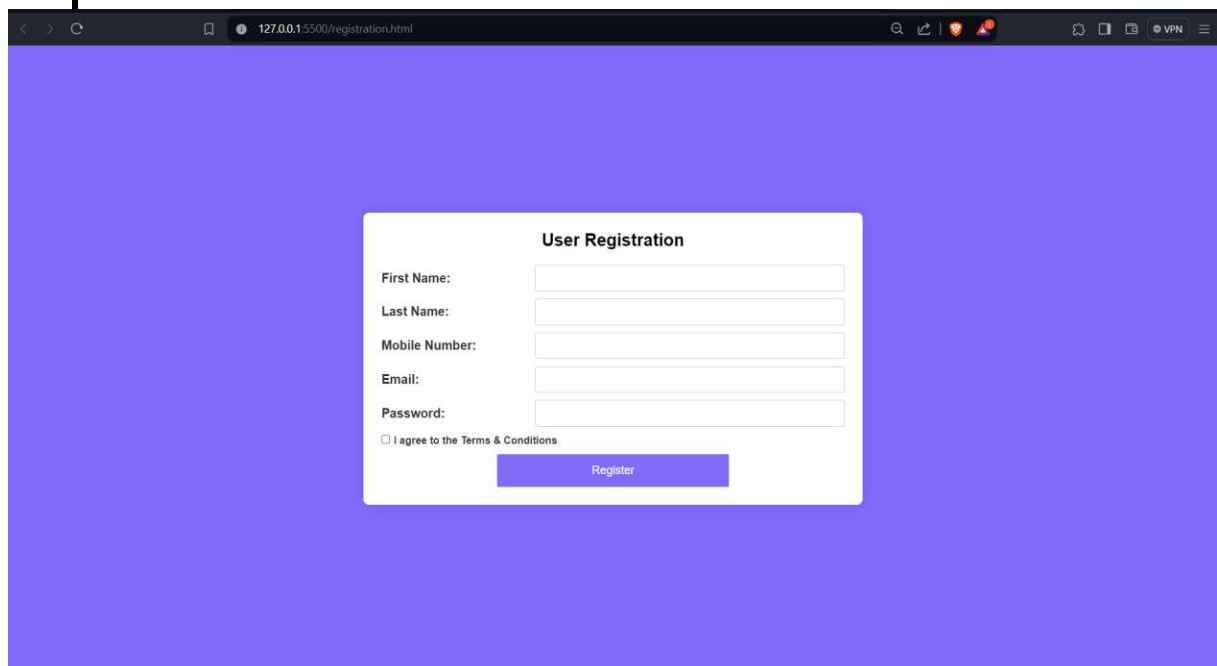
```
* {
  margin: 0;
  padding: 0;
  box-sizing: border-box;
  font-family: "Poppins", sans-serif;
}
body {
  min-height: 100vh;
  display: flex;
  align-items: center;
  justify-content: center;
  padding: 20px;
  background: rgb(130, 106, 251);
}
.container {
  position: relative;
  max-width: 700px;
  width: 100%;
  background: #fff;
  padding: 25px;
  border-radius: 8px;
  box-shadow: 0 0 15px rgba(0, 0, 0, 0.1);
}
h2 {
  text-align: center;
  margin-bottom: 20px;
}
form {
  display: flex;
  flex-direction: column;
}
.form-field {
  display: flex;
  align-items: center;
  margin-bottom: 10px;
}
```

Laboratory Record of DevOps

Sheet No. 3
Experiment No. 01
Date _____

```
input[type="text"],
input[type="email"],
input[type="password"] {
  flex: 2;
  padding: 10px;
  border: 1px solid #ccc;
  border-radius: 4px;
  box-sizing: border-box;
}
input[type="submit"] {
  margin-top: 10px;
  margin-left: 25%;
  height: 45px;
  width: 50%;
  color: #fff;
  align-items: center;
  transition: all 0.2s ease;
  background: rgb(130, 106, 251);
}
.terms-condition {
  font-size: 0.9rem;
  margin-top: 10px;
}
```

OUTPUT:



The screenshot shows a web browser window with the address bar displaying "127.0.0.1:3500/registration.html". The page has a solid purple background. In the center, there is a white rectangular box titled "User Registration". Inside this box, there are five input fields labeled "First Name:", "Last Name:", "Mobile Number:", "Email:", and "Password:". Below these fields is a checkbox labeled "I agree to the Terms & Conditions". At the bottom of the white box is a purple button labeled "Register".

EXPERIMENT-2

AIM: To explore Git and Github commands.

PROGRAM:

1)git config:

Usage: `git config --global user.name "[name]"`

Usage: `git config --global user.email "[email address]"`

This command sets the author name and email address respectively to be used with your commits.

2)git init:

Usage: `git init [repository name]`

This command is used to start a new repository.

3) git clone:

Usage: `git clone [url]`

This command is used to obtain a repository from an existing URL.

4) git status:

Usage: `git status`

This command lists all the files that have to be committed.

5) git add:

Usage: `git add [file]`

This command adds a file to the staging area.

Usage: `git add *`

This command adds one or more to the staging area.

6) git commit:

Usage: `git commit -m "[Type in the commit message]"`

This command records or snapshots the file permanently in the version history.

7) git log:

Usage: `git log`

This command is used to list the version history for the current branch.

8) git remote:

Usage: `git remote add [variable name] [Remote Server Link]`

This command is used to connect your local repository to the remote server.

9)git push:

Usage: `git push [variable name] [branch]`

This command sends the branch commits to your remote repository.

EXPERIMENT-3

AIM: To Practice Source code management on GitHub. Experiment with the source code written in experiment-2.

PROGRAM:

1) Create a new branch: Branches in Git allow developers to work on different features, fixes, or experiments in isolation from the main codebase, enabling parallel development and efficient collaboration.

>>git branch:

Usage: `git branch`

This command lists all the local branches in the current repository.

Usage: `git branch [branch name]`

This command creates a new branch.

Usage: `git branch -d [branch name]`

This command deletes the feature branch.

2)Switch to new branch:

>>git checkout:

Usage: `git checkout [branch name]`

This command is used to switch from one branch to another.

3) Make the changes in the code:

>>git diff:

Usage: `git diff`

This command shows the file differences which are not yet staged.

4) Track and commit changes:

5) Now merge the new branch with main branch to save changes in master branch:

>>git merge:

Usage: `git merge [branch name]`

This command merges the specified branch's history into the current branch.

6) Now push the changes into github repository:

7) Now you can see the changes in your github repository:

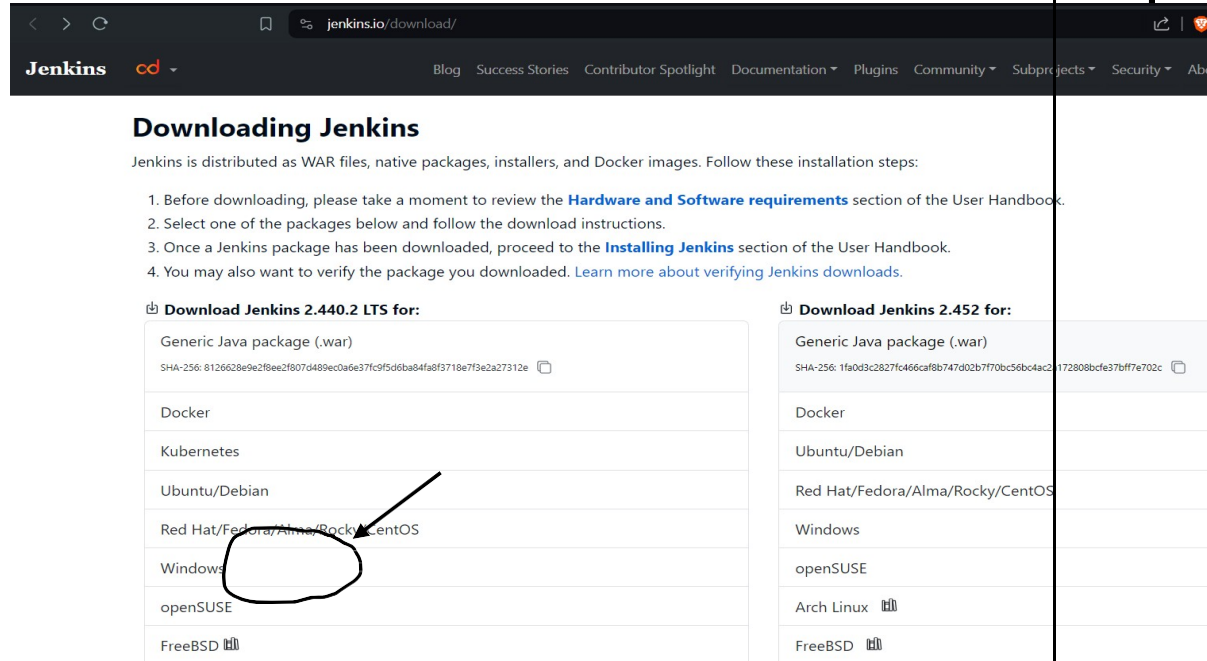
EXPERIMENT-4

Aim: Jenkins installation and setup, explore the environment.

PROCESS:

Step-1: Download Jenkins:-

- Go to the Jenkins website: <https://www.jenkins.io/download/>
- Click on the Windows link to download the Jenkins installer (jenkins.msi).



Step-2: Run the Installer:-

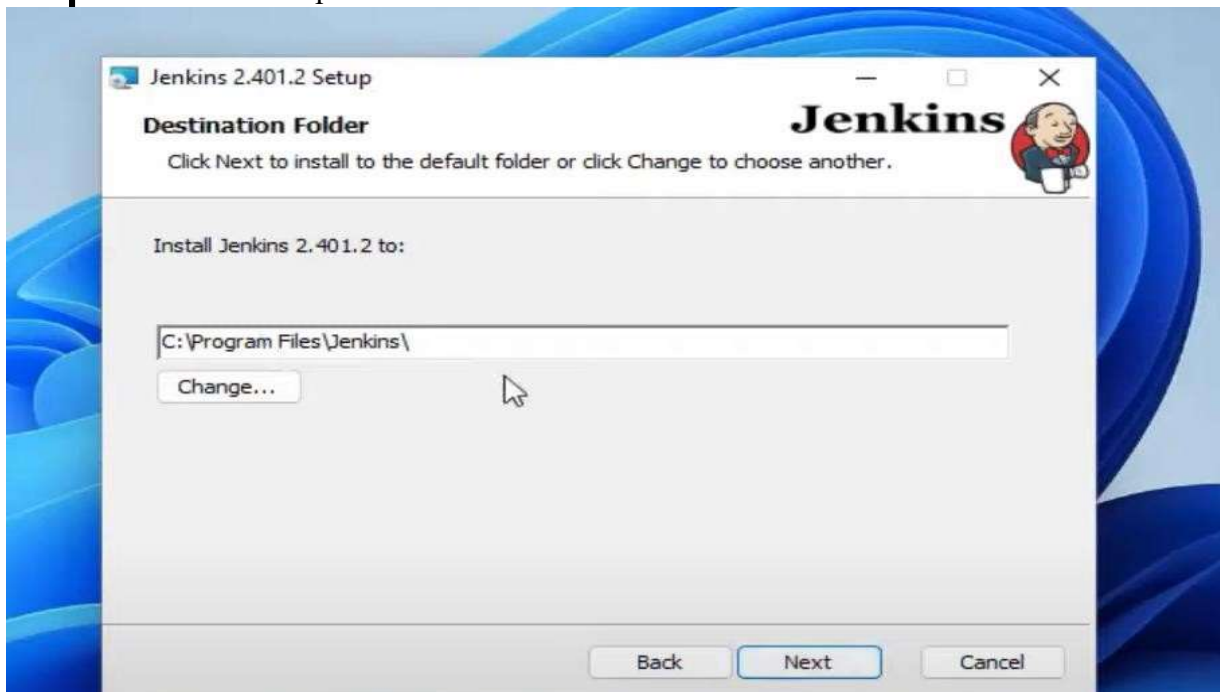
- Once the download is complete, locate the **jenkins.msi** file and double-click it to run the installer.
- If prompted by User Account Control, click "Yes" to allow the installer to make changes to your system.
- Follow the on-screen instructions in the Jenkins setup wizard.





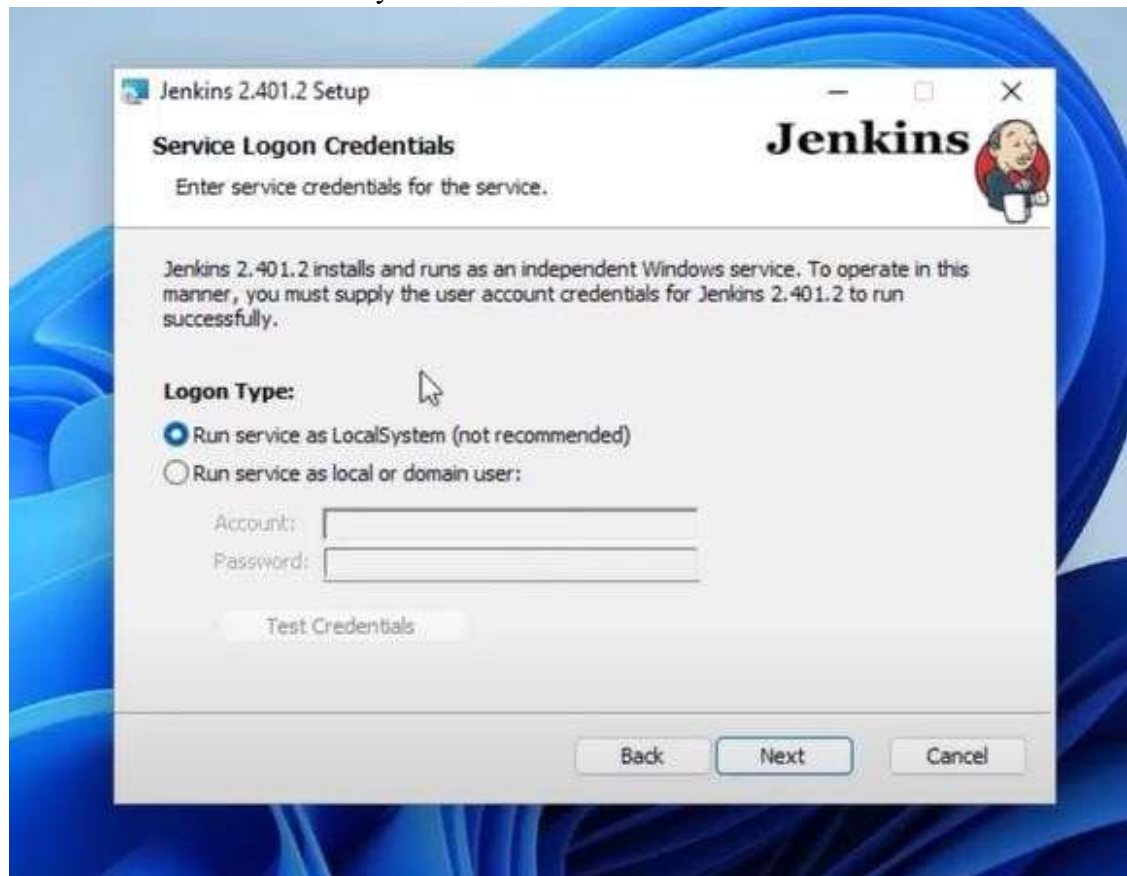
Step-3: Install Jenkins:

- Choose the installation directory for Jenkins. The default directory is usually C:\Program Files (x86)\Jenkins.
- Click "Next" to proceed with the installation.
- The installer will begin installing Jenkins on your system. This may take a few moments to complete.



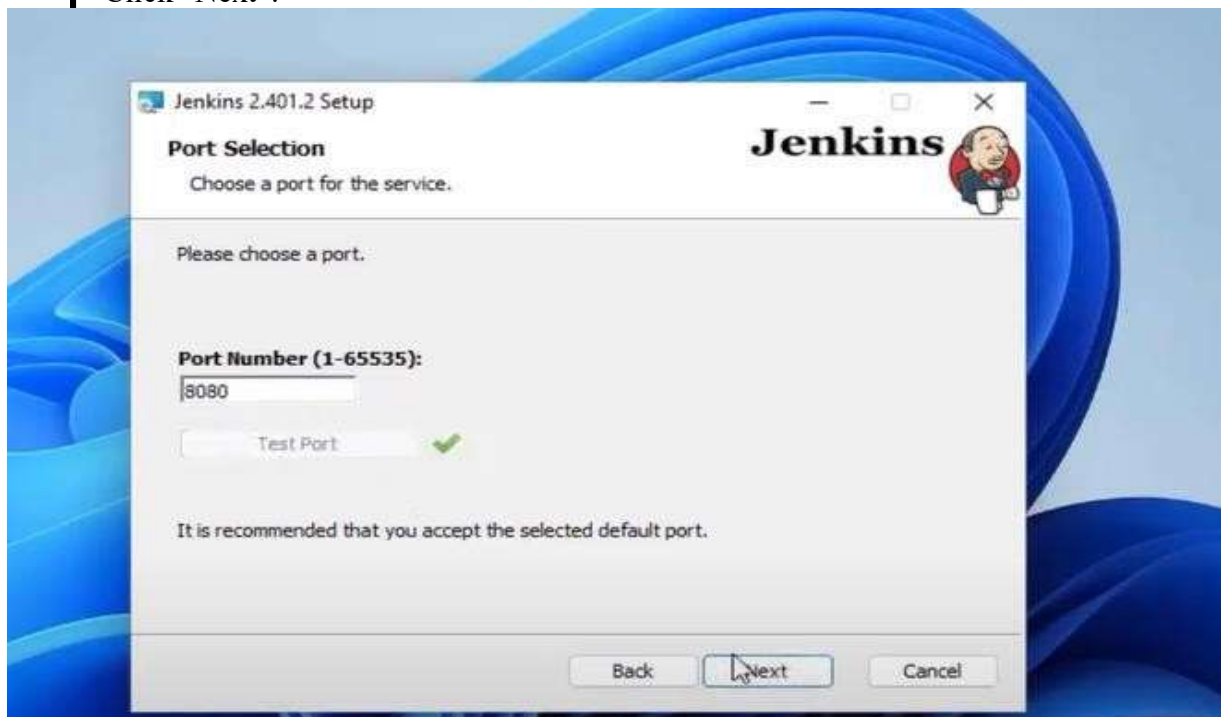
Step-4:Service Login Credentials:

- Select “Run service as LocalSystem” and click on “Next”.



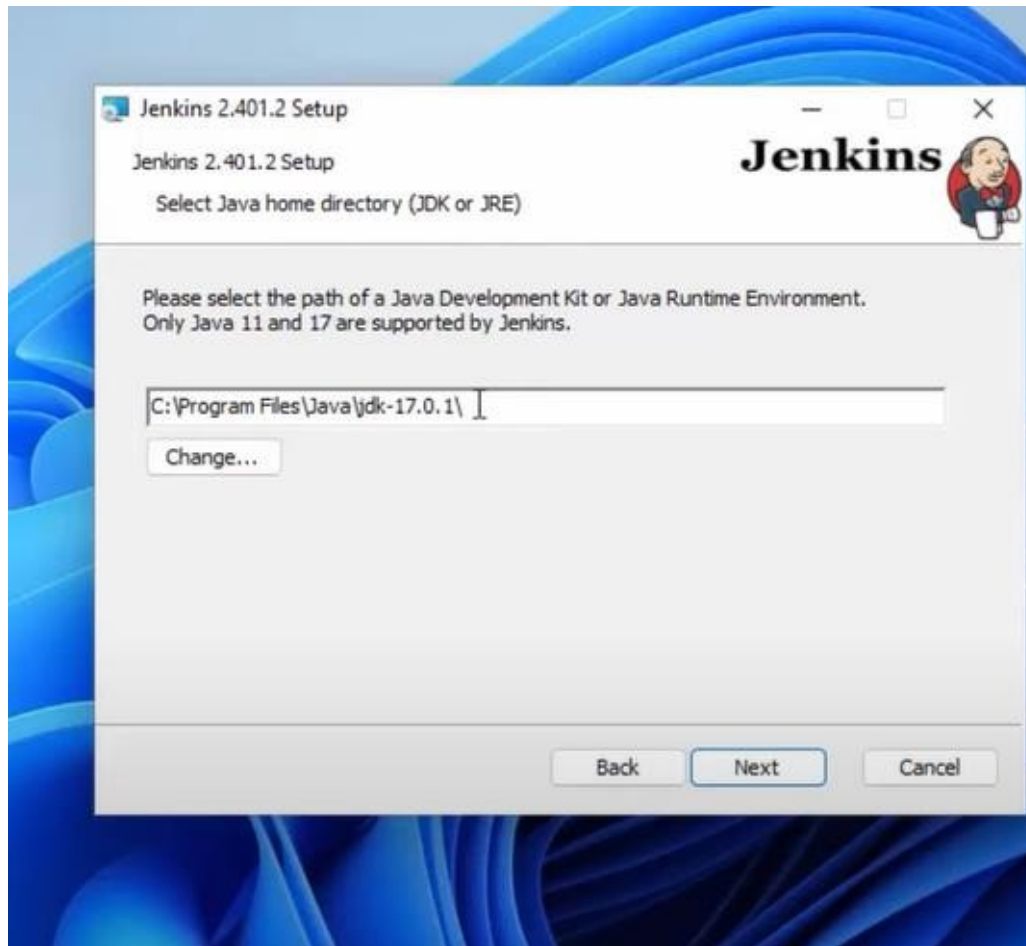
Step-5:Port Selection:

- Enter a port number ex: “8080” and test port .
- Click “Next”.



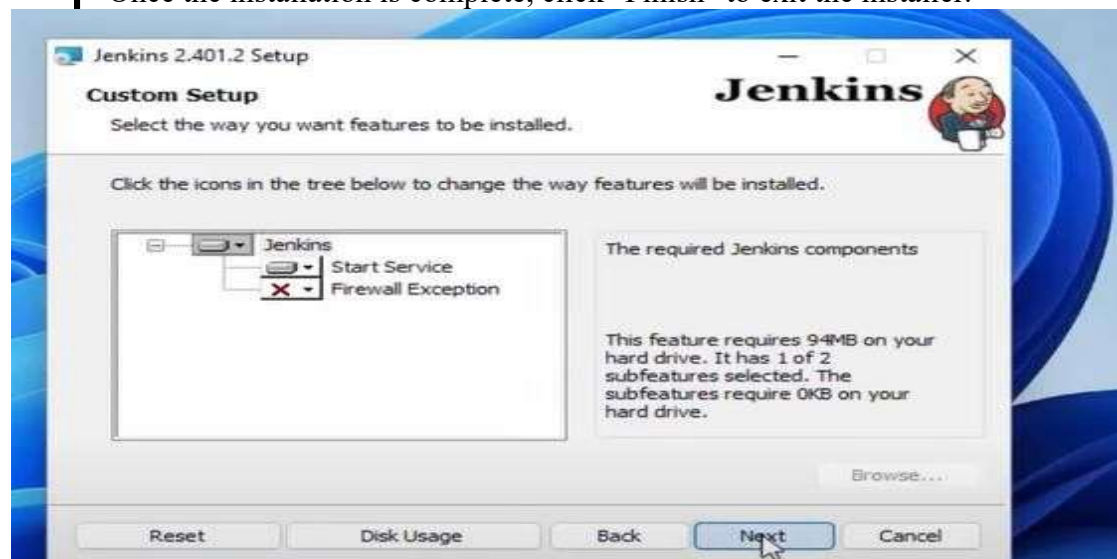
Step-6: Select JDK file directory:

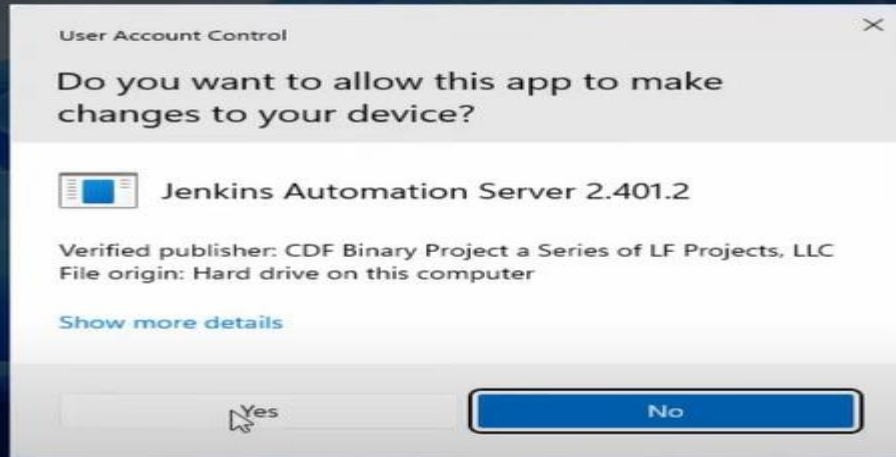
- Jenkins automatically detect the directory path of JDK.
- If not then change path manually by clicking "change".
- Click "Next".



Step-7: Complete the Installation:

- Click "Next" and then click "Install".
- Once the installation is complete, click "Finish" to exit the installer.





Step-8: Access Jenkins Web Interface:

- Open a web browser and navigate to <http://localhost:8080> to access the Jenkins web interface.
- To obtain the initial administrator password, navigate to the location specified in the Jenkins setup wizard and open the initialAdminPassword file using a text editor.
- **C:\ProgramFiles(x86)\Jenkins\secrets\initialAdminPassword**.
- Copy the password from the file and paste it into the Jenkins setup wizard to unlock Jenkins.

The image shows two screenshots related to Jenkins. The top screenshot is the 'Unlock Jenkins' wizard. It instructs the user to copy the initial administrator password from the file `C:\ProgramData\Jenkins\.jenkins\secrets\initialAdminPassword`. Below the instruction is a text input field labeled 'Administrator password' and a 'Continue' button.

The bottom screenshot is the Jenkins web interface at `localhost:8080`. It shows the 'Jenkins' header with a search bar and a 'log out' link. On the left is a sidebar with navigation links: New Item, People, Build History, Project Relationship, Check File Fingerprint, Manage Jenkins, My Views, Lockable Resources, Credentials, and New View. The main area displays a table of jobs. The 'Git_Job' is highlighted with a yellow circle. Below the table is a 'Build Queue' section showing 'No builds in the queue' and a 'Build Executor Status' section showing 'master'.

S	W	Name ↓	Last Success	Last Failure	Last Duration
🌐	☀️	First_Job	9 days 1 hr - #1	N/A	1.1 sec
🌐	☀️	Git_Job ▼	2 days 6 hr - #2	1 hr 3 min - #3	7.5 sec
🌐	☀️	My-	N/A	N/A	N/A
🌐	☀️	My-second-pipeline	N/A	N/A	N/A
🌐	☀️	Second_Job	32 sec - #2215	N/A	0.39 sec