

Deep Chavan

T11-15

LAB ASSIGNMENT 4

AIM: To understand Continuous integration and Jenkins installation.

LAB OUTCOME:

LO1, LO3 Mapped.

THEORY:

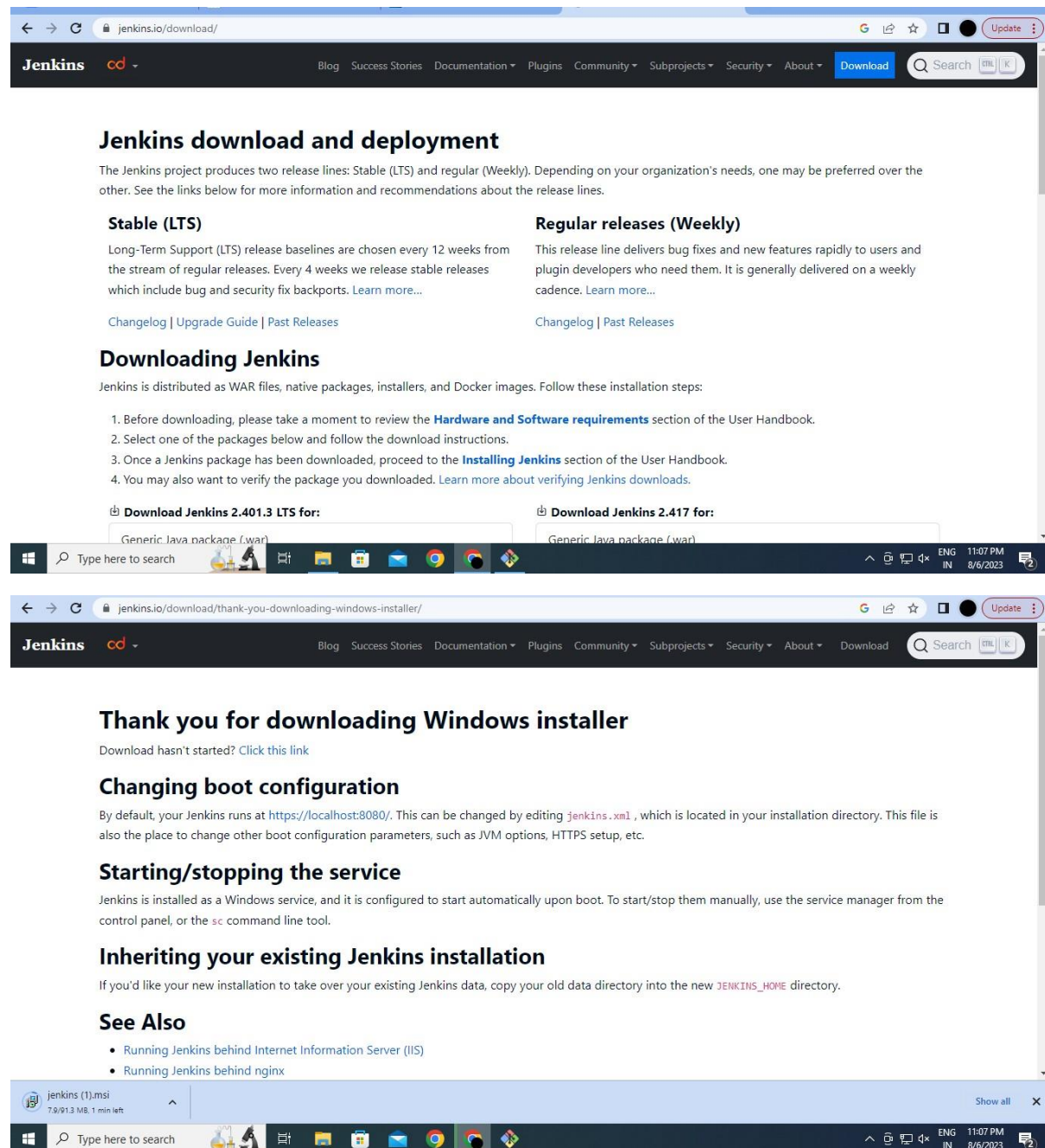
Continuous Integration (CI) is a software development practice that involves automatically integrating code changes from multiple contributors into a shared repository. The goal is to detect and address integration issues early, ensuring that new code doesn't break existing functionality. Jenkins is a popular open-source automation server used for implementing CI/CD (Continuous Integration/Continuous Deployment) pipelines. Jenkins is an opensource automation server that facilitates Continuous Integration (CI) and Continuous Delivery (CD) in software development. It automates the process of building, testing, and deploying code changes, helping development teams streamline their workflows and ensure software quality. Jenkins provides a platform for creating and managing pipelines, which are a series of steps that outline how software changes should be built, tested, and delivered. These pipelines are often defined using a domain-specific language (DSL) or through a graphical interface.

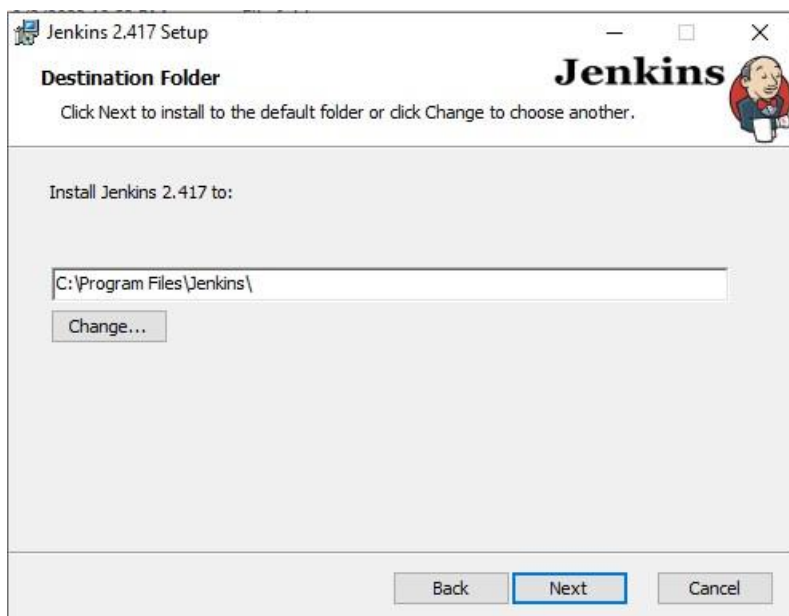
Steps for Jenkins Installation on Windows:

- 1. Install Java:** Make sure Java is installed on the system.
- 2. Download Jenkins:** Visit the official Jenkins website (<https://www.jenkins.io/>) and download the Windows installer.
- 3. Run Installer:** Execute the downloaded Jenkins installer.
- 4. Follow Setup:** Follow the on-screen instructions to complete the installation.
- 5. Start Jenkins:** If it doesn't start automatically, initiate Jenkins as a service.
- 6. Access Web Interface:** Open a web browser and go to <http://localhost:8080>.
- 7. Initial Admin Password:** Check the Jenkins logs for the initial admin password.
- 8. Complete Setup:** Follow prompts to install plugins and set up an admin user.
- 9. Install Plugins:** If needed, install additional plugins for integration.
- 10. Create Pipelines:** Configure CI/CD pipelines to automate tasks.

11. Remember, Jenkins on Windows operates on port 8080 by default. Make sure Java is properly configured and accessible from the command line.

SCREENSHOTS:





Jenkins 2.417 Setup

Service Logon Credentials

Enter service credentials for the service.

Jenkins 2.417 installs and runs as an independent Windows service. To operate in this manner, you must supply the user account credentials for Jenkins 2.417 to run successfully.

Logon Type:

☒ Run service as LocalSystem (not recommended)

☐ Run service as local or domain user:

Account:

Password:

Jenkins 2.417 Setup

Port Selection

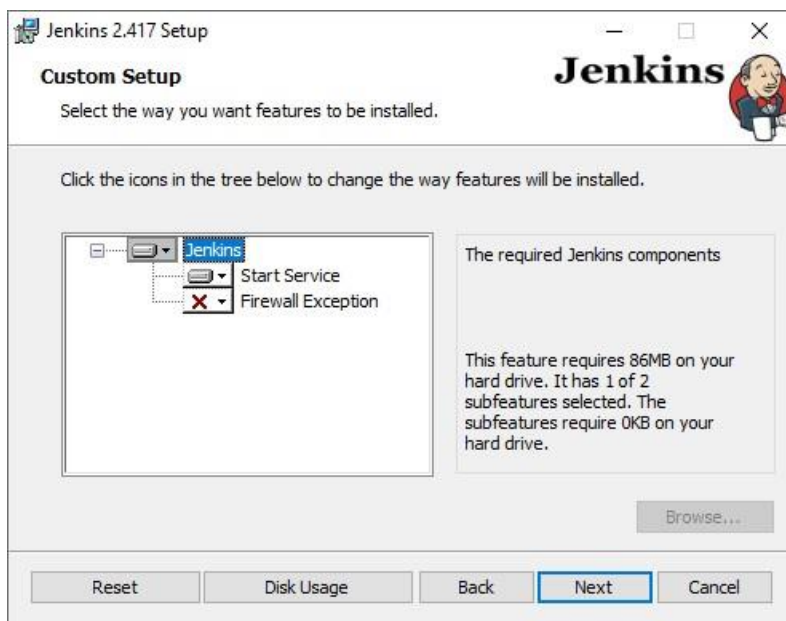
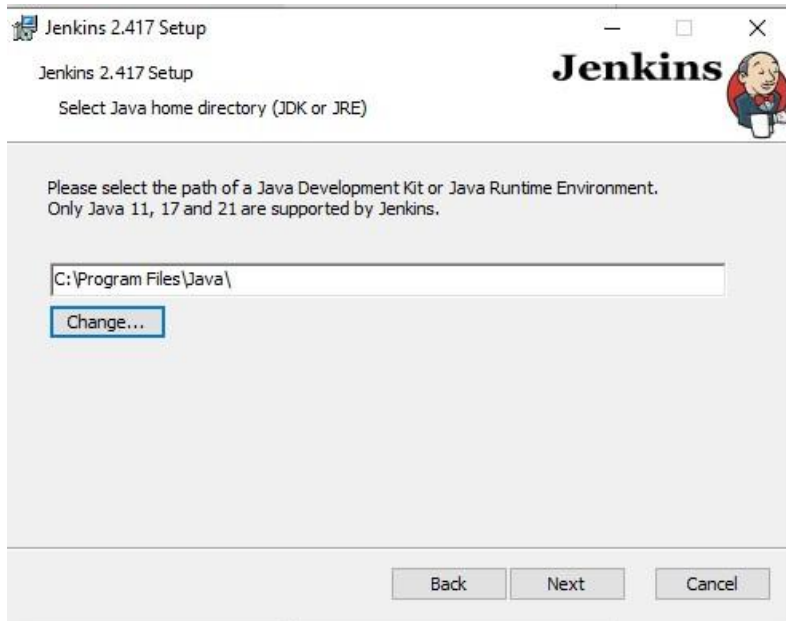
Choose a port for the service.

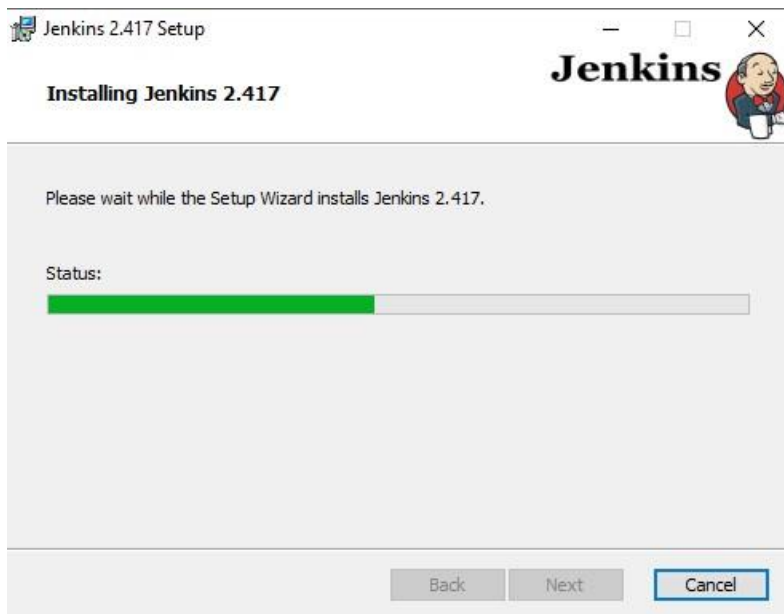
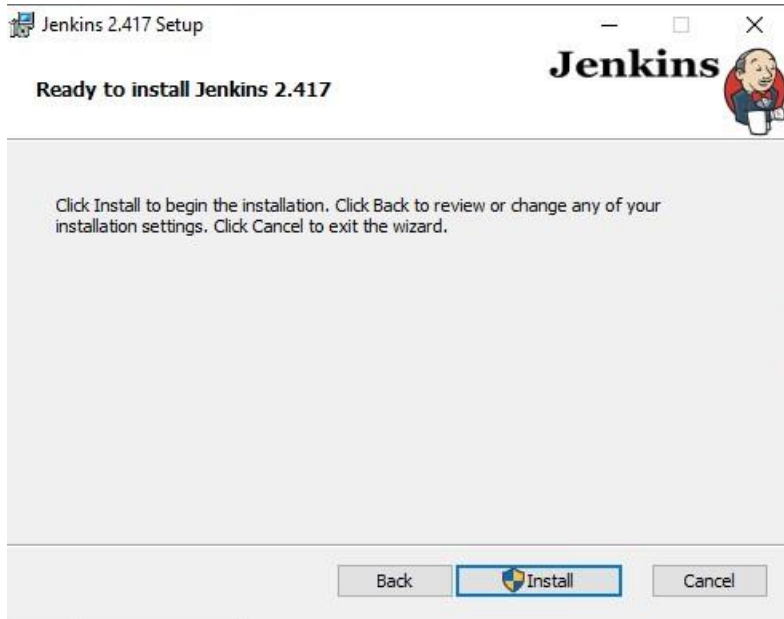
Please choose a port.

Port Number (1-65535):

✓

It is recommended that you accept the selected default port.





Completed the Jenkins 2.417 Setup Wizard

Click the Finish button to exit the Setup Wizard.

[Back](#)[Finish](#)[Cancel](#)

Getting Started

Unlock Jenkins

To ensure Jenkins is securely set up by the administrator, a password has been written to the log ([not sure where to find it?](#)) and this file on the server:

```
C:\ProgramData\Jenkins\.jenkins\secrets\initialAdminPassword
```

Please copy the password from either location and paste it below.




















Administrator password

[Continue](#)

```
initialAdminPassword - Notepad
File Edit Format View Help
a6ba344bf6564ce3a561ea15b98c1539
|
```

Ln 2, Col 1 100% Windows (CRLF) UTF-8

Getting Started

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

** - required dependency

Jenkins 2.417

CONCLUSION:

Through this assignment, I have learnt the concept of Continuous Integration and successfully installed Jenkins on a Windows System.