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Class: I – MCA – “A”

## TASK - 1

# DEVOPS TRAINING

## Step 1: (Installing Ubuntu)

### Enable WSL

Before installing Ubuntu, ensure that WSL is enabled on your Windows system.

### Enable WSL Feature

1. Open **PowerShell** as Administrator and run:
2. `wsl --install`

```
bhavana@LAPTOP-SQGQHC5H: ~
$ sudo systemctl start jenkins
bhavana@LAPTOP-SQGQHC5H: ~$ sudo systemctl enable jenkins
Synchronizing state of jenkins.service with SysV service script with /usr/lib/systemd/systemd-sysv-install.
Executing: /usr/lib/systemd/systemd-sysv-install enable jenkins
bhavana@LAPTOP-SQGQHC5H: ~$ sudo systemctl status jenkins
jenkins.service - Jenkins Continuous Integration Server
   Loaded: loaded (/usr/lib/systemd/system/jenkins.service; enabled; preset: enabled)
   Active: active (running) since Tue 2025-03-18 21:13:51 UTC; 1min 46s ago
     Main PID: 4144 (java)
       Tasks: 38 (limit: 2020)
      Memory: 466.7M ()
      CGroup: /system.slice/jenkins.service
              └─4144 /usr/bin/java -Djava.awt.headless=true -jar /usr/share/java/jenkins.war --webroot=/var/cache/jenkins/war --httpPort=8080

Mar 18 21:13:44 LAPTOP-SQGQHC5H jenkins[4144]: b726e0ea16764883b55b1fb3d410d4b4
Mar 18 21:13:44 LAPTOP-SQGQHC5H jenkins[4144]: This may also be found at: /var/lib/jenkins/secrets/initialAdminPassword
Mar 18 21:13:44 LAPTOP-SQGQHC5H jenkins[4144]: *****
Mar 18 21:13:44 LAPTOP-SQGQHC5H jenkins[4144]: *****
Mar 18 21:13:51 LAPTOP-SQGQHC5H jenkins[4144]: 2025-03-18 21:13:51.592+0000 [id=31] INFO jenkins.InitReactorRunner$1#onAttained: Completed initialization
Mar 18 21:13:51 LAPTOP-SQGQHC5H jenkins[4144]: 2025-03-18 21:13:51.612+0000 [id=24] INFO hudson.lifecycle.Lifecycle#onReady: Jenkins is fully up and running
Mar 18 21:13:51 LAPTOP-SQGQHC5H system[1]: Started jenkins.service - Jenkins Continuous Integration Server
Mar 18 21:13:53 LAPTOP-SQGQHC5H jenkins[4144]: 2025-03-18 21:13:53.736+0000 [id=53] INFO hudson.DownloadService$Downloadable#load: Obtained the updated data file for hudson.tasks.Maven.MavenInstaller
Mar 18 21:13:53 LAPTOP-SQGQHC5H jenkins[4144]: 2025-03-18 21:13:53.738+0000 [id=53] INFO hudson.util.Retrier#start: Performed the action check updates server successfully at the attempt #1

Times: 1:19.728 (CPU)
```

## Step 2: (Set New Password) Set Up Ubuntu

When Ubuntu runs for the first time, it will ask you to create a new user account.

1. **Enter a username** (must start with a lowercase letter or underscore, and contain only lowercase letters, digits, underscores, and dashes).
2. **Set a password** (enter and confirm the password). If passwords do not match, you will need to retry.
3. Once successful, Ubuntu will be set up and ready to use.

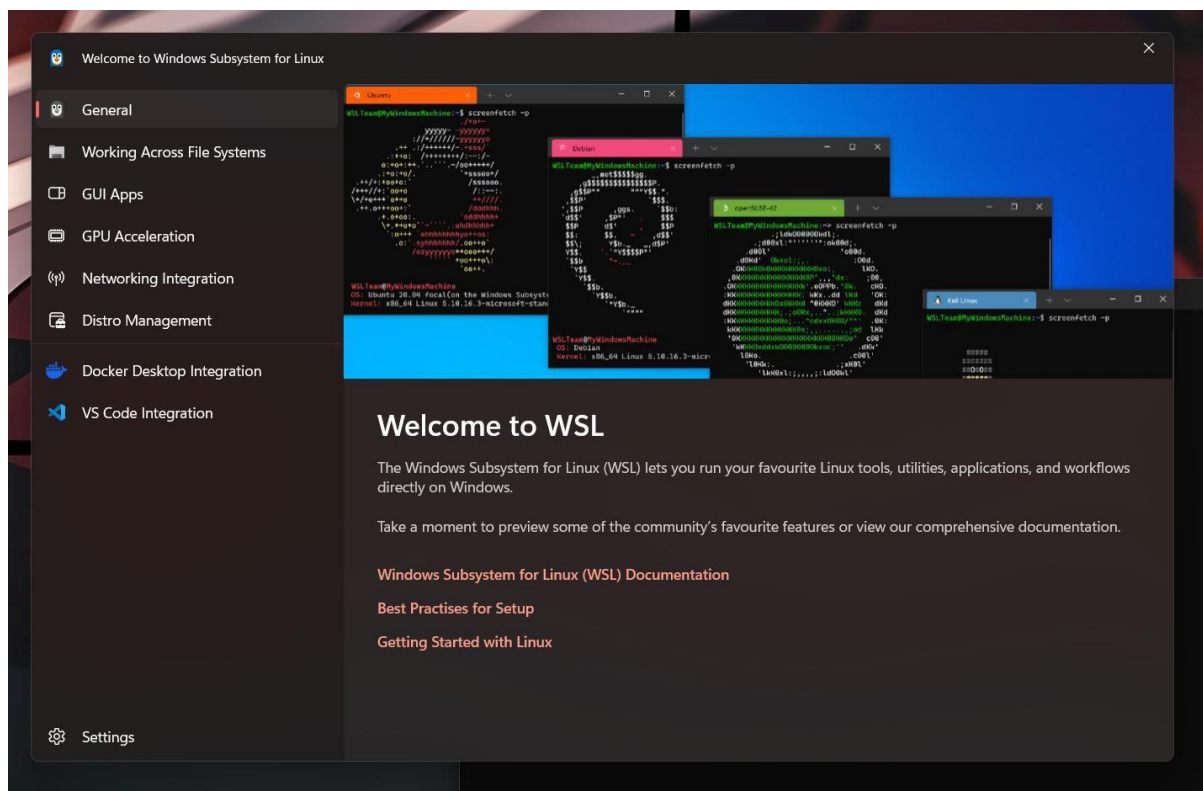
```
bhavana@LAPTOP-SQGQHC5H:~$ sudo systemctl start jenkins
bhavana@LAPTOP-SQGQHC5H:~$ sudo systemctl enable jenkins
Synchronizing state of jenkins.service with SysV service script with /usr/lib/systemd/systemd-sysv-install.
Executing: /usr/lib/systemd/systemd-sysv-install enable jenkins
bhavana@LAPTOP-SQGQHC5H:~$ sudo systemctl status jenkins
* jenkins.service - Jenkins Continuous Integration Server
   Loaded: loaded (/usr/lib/systemd/system/jenkins.service; enabled; preset: enabled)
   Active: active (running) since Tue 2025-03-18 21:13:51 UTC; 1min 46s ago
     Main PID: 4144 (java)
       Tasks: 38 (limit: 2020)
      Memory: 466.7M ()
     CGroup: /system.slice/jenkins.service
             └─4144 /usr/bin/java -Djava.awt.headless=true -jar /usr/share/java/jenkins.war --webroot=/var/cache/jenkins/war --httpPort=8080

Mar 18 21:13:44 LAPTOP-SQGQHC5H jenkins[4144]: b726e0ea16764883b5b1fb3d410d4b4
Mar 18 21:13:44 LAPTOP-SQGQHC5H jenkins[4144]: This may also be found at: /var/lib/jenkins/secrets/initialAdminPassword
Mar 18 21:13:44 LAPTOP-SQGQHC5H jenkins[4144]: *****
Mar 18 21:13:44 LAPTOP-SQGQHC5H jenkins[4144]: *****
Mar 18 21:13:44 LAPTOP-SQGQHC5H jenkins[4144]: *****
Mar 18 21:13:51 LAPTOP-SQGQHC5H jenkins[4144]: 2025-03-18 21:13:51.592+0000 [id=31] INFO jenkins.InitReactorRunner$1#onAttained: Completed initialization
Mar 18 21:13:51 LAPTOP-SQGQHC5H jenkins[4144]: 2025-03-18 21:13:51.612+0000 [id=24] INFO hudson.lifecycle.Lifecycle#onReady: Jenkins is fully up and running
Mar 18 21:13:51 LAPTOP-SQGQHC5H system[1]: Started jenkins.service - Jenkins Continuous Integration Server
Mar 18 21:13:53 LAPTOP-SQGQHC5H jenkins[4144]: 2025-03-18 21:13:53.736+0000 [id=53] INFO h.m.DownloadService$Downloadable#load: Obtained the updated data file for hudson.tasks.Maven.MavenInstaller
Mar 18 21:13:53 LAPTOP-SQGQHC5H jenkins[4144]: 2025-03-18 21:13:53.738+0000 [id=53] INFO hudson.util.Retrier#start: Performed the action check updates server successfully at the attempt #1

Times: 19.170s (CPU)
```

### Step 3:

(New WSL Window Will Open)



### Step 4:

(Check JDK Version) If not available install it .

## Install Jenkins on Ubuntu

# Update package lists `sudo`

`apt update -y`

# Install Java (Required for Jenkins) `sudo apt install -y openjdk-17-jdk`

#verify java version `java -version`

## Add Jenkins GPG Key

`wget -q -O- https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key | sudo tee`

`/usr/share/keyrings/jenkins-keyring.asc > /dev/null` **Add the Jenkins**

## Repository

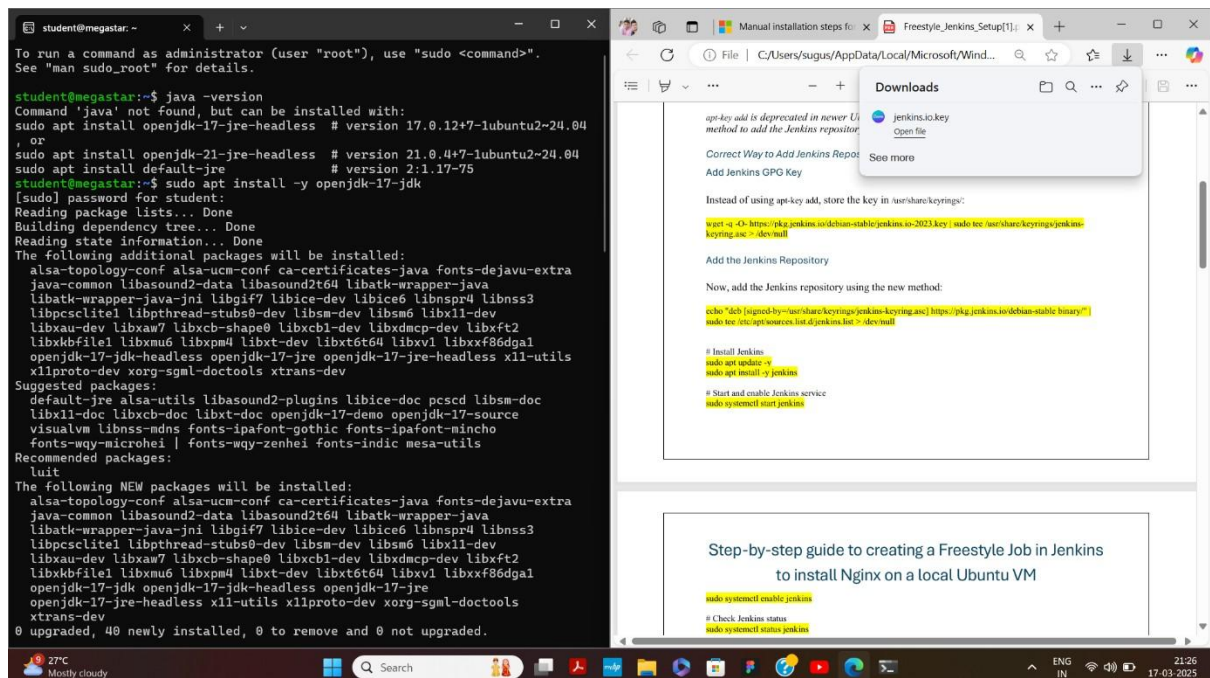
`echo "deb [signed-by=/usr/share/keyrings/jenkins-keyring.asc] https://pkg.jenkins.io/debian-stable binary/" | sudo tee /etc/apt/sources.list.d/jenkins.list > /dev/null`

# Install Jenkins `sudo`

`apt update -y` `sudo apt`

`install -y jenkins`

# Start and enable Jenkins service `sudo systemctl start Jenkins`



```
student@LAPTOP-INTAVHGL:~$ sudo apt update
Get:13 http://security.ubuntu.com/ubuntu noble-security/universe amd64 c-n-f Metadata [16.9 kB]
Get:14 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Packages [726 kB]
Get:15 http://security.ubuntu.com/ubuntu noble-security/restricted Translation-en [146 kB]
Get:16 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Components [212 B]
Get:17 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 c-n-f Metadata [432 B]
Get:18 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Packages [26.2 kB]
Get:19 http://security.ubuntu.com/ubuntu noble-security/multiverse Translation-en [4892 B]
Get:20 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Components [212 B]
Get:21 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 c-n-f Metadata [448 B]
Get:22 http://archive.ubuntu.com/ubuntu noble/universe Translation-en [5982 kB]
Get:23 http://archive.ubuntu.com/ubuntu noble/universe amd64 Components [3871 kB]
Get:24 http://archive.ubuntu.com/ubuntu noble/universe amd64 c-n-f Metadata [301 kB]
Get:25 http://archive.ubuntu.com/ubuntu noble/multiverse amd64 Packages [269 kB]
Get:26 http://archive.ubuntu.com/ubuntu noble/multiverse Translation-en [118 kB]
Get:27 http://archive.ubuntu.com/ubuntu noble/multiverse amd64 Components [35.0 kB]
Get:28 http://archive.ubuntu.com/ubuntu noble/multiverse amd64 c-n-f Metadata [8328 B]
Get:29 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 Packages [921 kB]
Get:30 http://archive.ubuntu.com/ubuntu noble-updates/main Translation-en [200 kB]
Get:31 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 Components [151 kB]
Get:32 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 c-n-f Metadata [13.4 kB]
Get:33 http://archive.ubuntu.com/ubuntu noble-updates/universe amd64 Packages [1840 kB]
Get:34 http://archive.ubuntu.com/ubuntu noble-updates/universe Translation-en [262 kB]
Get:35 http://archive.ubuntu.com/ubuntu noble-updates/universe amd64 Components [364 kB]
Get:36 http://archive.ubuntu.com/ubuntu noble-updates/universe amd64 c-n-f Metadata [25.8 kB]
Get:37 http://archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Packages [759 kB]
Get:38 http://archive.ubuntu.com/ubuntu noble-updates/restricted Translation-en [153 kB]
Get:39 http://archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Components [212 B]
Get:40 http://archive.ubuntu.com/ubuntu noble-updates/restricted amd64 c-n-f Metadata [464 B]
Get:41 http://archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 Packages [30.1 kB]
Get:42 http://archive.ubuntu.com/ubuntu noble-updates/multiverse Translation-en [5884 B]
Get:43 http://archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 Components [940 B]
Get:44 http://archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 c-n-f Metadata [656 B]
Get:45 http://archive.ubuntu.com/ubuntu noble-backports/main amd64 Components [208 B]
Get:46 http://archive.ubuntu.com/ubuntu noble-backports/main amd64 c-n-f Metadata [112 B]
Get:47 http://archive.ubuntu.com/ubuntu noble-backports/universe amd64 Packages [14.2 kB]
Get:48 http://archive.ubuntu.com/ubuntu noble-backports/universe Translation-en [12.1 kB]
Get:49 http://archive.ubuntu.com/ubuntu noble-backports/universe amd64 Components [20.0 kB]
Get:50 http://archive.ubuntu.com/ubuntu noble-backports/universe amd64 c-n-f Metadata [1256 B]
Get:51 http://archive.ubuntu.com/ubuntu noble-backports/restricted amd64 Components [216 B]
Get:52 http://archive.ubuntu.com/ubuntu noble-backports/restricted amd64 c-n-f Metadata [116 B]
Get:53 http://archive.ubuntu.com/ubuntu noble-backports/multiverse amd64 Components [212 B]
Get:54 http://archive.ubuntu.com/ubuntu noble-backports/multiverse amd64 c-n-f Metadata [116 B]
Fetched 32.8 MB in 19s (1707 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
96 packages can be upgraded. Run 'apt list --upgradable' to see them.
student@LAPTOP-INTAVHGL:~$
```

```
student@LAPTOP-INTAVHGL:~$ sudo apt update
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/serialver to provide /usr/bin/serialver (serialver) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jhsdb to provide /usr/bin/jhsdb (jhsdb) in auto mode
Setting up openjdk-17-jdk-amd64 (17.0.147-1~24.04)
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jconsole to provide /usr/bin/jconsole (jconsole) in auto mode
student@LAPTOP-INTAVHGL:~$ java -version
openjdk version "17.0.14" 2025-01-21
OpenJDK Runtime Environment (build 17.0.14-7-Ubuntu-124.04)
student@LAPTOP-INTAVHGL:~$ wget -q -O - https://pkg.jenkins.io/debian-stable/jenkins.io.key | sudo apt-key add
add
wget: missing URL
Usage: wget [OPTION]... [URL]...

Try 'wget --help' for more options.
Warning: apt-key is deprecated. Manage keyrings in trusted.gpg.d instead (see apt-key(8)).
gpg: no valid OpenPGP data found.
student@LAPTOP-INTAVHGL:~$ wget -q -O - https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key | sudo tee /usr/share/keyrings/jenkins-keyring.asc >/dev/null
student@LAPTOP-INTAVHGL:~$ wget -q -O - https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key | sudo tee /usr/share/keyrings/jenkins-keyring.asc >/dev/null
student@LAPTOP-INTAVHGL:~$ wget -q -O - https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key | sudo tee /usr/share/keyrings/jenkins-keyring.asc >/dev/null
student@LAPTOP-INTAVHGL:~$ wget -q -O - https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key | sudo tee /usr/share/keyrings/jenkins-keyring.asc >/dev/null
student@LAPTOP-INTAVHGL:~$ echo "deb [signed-by=/usr/share/keyrings/jenkins-keyring.asc] https://pkg.jenkins.io/debian-stable binary/" | sudo tee /etc/apt/sources.list.d/jenkins.list >/dev/null
student@LAPTOP-INTAVHGL:~$ sudo apt update -y
Hit:1 https://pkg.jenkins.io/debian-stable binary/ InRelease
Get:2 https://pkg.jenkins.io/debian-stable binary/ Release [2044 B]
Get:3 https://pkg.jenkins.io/debian-stable binary/ Release.gpg [833 B]
Get:4 https://pkg.jenkins.io/debian-stable binary/ Packages [28.7 kB]
Hit:5 http://security.ubuntu.com/ubuntu noble-security InRelease
Hit:6 http://archive.ubuntu.com/ubuntu noble InRelease
Hit:7 http://archive.ubuntu.com/ubuntu noble-updates InRelease
Hit:8 http://archive.ubuntu.com/ubuntu noble-backports InRelease
Fetched 31.6 kB in 2s (17.6 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
96 packages can be upgraded. Run 'apt list --upgradable' to see them.
student@LAPTOP-INTAVHGL:~$
```

## Step 5: Install Jenkins

sudo apt update -y sudo

apt install -y jenkins



```
student@LAPTOP-INTAVHGL: ~  
wget: missing URL  
Usage: wget [OPTION]... [URL]...  
  
Try 'wget --help' for more options.  
sudo: tee/usr/share/keyrings/jenkins-keyring.asc: command not found  
student@LAPTOP-INTAVHGL:~$ wget -q -O- https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key | sudo tee  
tee/usr/share/keyrings/jenkins-keyring.asc&&dev/null  
sudo: tee/usr/share/keyrings/jenkins-keyring.asc: command not found  
student@LAPTOP-INTAVHGL:~$ wget -q -O- https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key | sudo tee  
tee /usr/share/keyrings/jenkins-keyring.asc&&dev/null  
student@LAPTOP-INTAVHGL:~$ echo "deb [signed-by=/usr/share/keyrings/jenkins-keyring.asc] https://pkg.jenkins.io/debian-stable binary/" | sudo tee /etc/apt/sources.list.d/jenkins.list > /dev/null  
student@LAPTOP-INTAVHGL:~$ sudo apt update -y  
Ign:1 https://pkg.jenkins.io/debian-stable binary/ InRelease  
Get:2 https://pkg.jenkins.io/debian-stable binary/ Release [2044 B]  
Get:3 https://pkg.jenkins.io/debian-stable binary/ Release.gpg [833 B]  
Get:4 https://pkg.jenkins.io/debian-stable binary/ Packages [28.7 kB]  
Hit:5 http://security.ubuntu.com/ubuntu noble-security InRelease  
Hit:6 http://archive.ubuntu.com/ubuntu noble InRelease  
Hit:7 http://archive.ubuntu.com/ubuntu noble-updates InRelease  
Hit:8 http://archive.ubuntu.com/ubuntu noble-backports InRelease  
Fetched 31.6 kB in 2s (12.6 kB/s)  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
56 packages can be upgraded. Run 'apt list --upgradable' to see them.  
student@LAPTOP-INTAVHGL:~$ sudo apt install -y jenkins  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
The following additional packages will be installed:  
  net-tools  
The following NEW packages will be installed:  
  jenkins net-tools  
0 upgraded, 2 newly installed, 0 to remove and 56 not upgraded.  
Need to get 95.0 MB of archives.  
After this operation, 97.6 MB of additional disk space will be used.  
Get:1 http://archive.ubuntu.com/ubuntu noble/main amd64 net-tools amd64 2.10-0.1ubuntu4 [204 kB]  
Get:2 https://pkg.jenkins.io/debian-stable binary/ jenkins 2.492.2 [94.8 MB]  
dEJ [2 jenkins 28.7 MB/94.8 MB 30%]  
2852 kB/s 23s
```

## Step 6: Check Jenkins Status

sudo systemctl status jenkins cat copy the  
localhost:8080 admin path display the  
password

=>By default, Jenkins runs as a system user (jenkins). If your script requires sudo, you must allow the  
Jenkins user to run commands without a password. sudo visudo

Add the following line at the end:

jenkins ALL=(ALL) NOPASSWD: ALL

Save and exit.

```
student@LAPTOP-INTAVHGL: ~  
student@LAPTOP-INTAVHGL:~$ sudo systemctl status jenkins  
● jenkins.service - Jenkins Continuous Integration Server  
   Loaded: loaded (/usr/lib/systemd/system/jenkins.service; enabled; preset: enabled)  
   Active: active (running) since Mon 2025-03-17 17:37:50 UTC; 3min 55s ago  
     Main PID: 2392 (java)  
       Tasks: 58 (limit: 9090)  
      Memory: 949.5M (-)  
      CGroup: /system.slice/jenkins.service  
              └─2392 /usr/bin/java -Djava.awt.headless=true -jar /usr/share/java/jenkins.war --webroot=/var/cache/jenkins/war --httpPort=8080  
  
Mar 17 17:37:41 LAPTOP-INTAVHGL jenkins[2392]: 6513675f53d24271bfec2b0a9121d66e  
Mar 17 17:37:41 LAPTOP-INTAVHGL jenkins[2392]: This may also be found at: /var/lib/jenkins/secrets/initialAdminPassword  
Mar 17 17:37:41 LAPTOP-INTAVHGL jenkins[2392]: *****  
Mar 17 17:37:41 LAPTOP-INTAVHGL jenkins[2392]: *****  
Mar 17 17:37:41 LAPTOP-INTAVHGL jenkins[2392]: *****  
Mar 17 17:37:50 LAPTOP-INTAVHGL jenkins[2392]: 2025-03-17 17:37:50.706+0000 [id=55] INFO  
Mar 17 17:37:50 LAPTOP-INTAVHGL jenkins[2392]: 2025-03-17 17:37:50.736+0000 [id=33] INFO  
Mar 17 17:37:50 LAPTOP-INTAVHGL systemd[1]: Started jenkins.service - Jenkins Continuous Integration Server.  
Mar 17 17:37:53 LAPTOP-INTAVHGL jenkins[2392]: 2025-03-17 17:37:53.053+0000 [id=87] INFO  
Mar 17 17:37:53 LAPTOP-INTAVHGL jenkins[2392]: 2025-03-17 17:37:53.055+0000 [id=87] INFO  
  
lines 1-19/19 (END)  
● jenkins.service - Jenkins Continuous Integration Server  
   Loaded: loaded (/usr/lib/systemd/system/jenkins.service; enabled; preset: enabled)  
   Active: active (running) since Mon 2025-03-17 17:37:50 UTC; 3min 55s ago  
     Main PID: 2392 (java)  
       Tasks: 58 (limit: 9090)  
      Memory: 949.5M (-)  
      CGroup: /system.slice/jenkins.service  
              └─2392 /usr/bin/java -Djava.awt.headless=true -jar /usr/share/java/jenkins.war --webroot=/var/cache/jenkins/war --httpPort=8080  
  
Mar 17 17:37:41 LAPTOP-INTAVHGL jenkins[2392]: 6513675f53d24271bfec2b0a9121d66e  
Mar 17 17:37:41 LAPTOP-INTAVHGL jenkins[2392]: This may also be found at: /var/lib/jenkins/secrets/initialAdminPassword  
Mar 17 17:37:41 LAPTOP-INTAVHGL jenkins[2392]: *****  
Mar 17 17:37:41 LAPTOP-INTAVHGL jenkins[2392]: *****  
Mar 17 17:37:41 LAPTOP-INTAVHGL jenkins[2392]: *****  
Mar 17 17:37:50 LAPTOP-INTAVHGL jenkins[2392]: 2025-03-17 17:37:50.706+0000 [id=55] INFO jenkins.InitReactorRunner$1onAttained: Completed initialization  
Mar 17 17:37:50 LAPTOP-INTAVHGL jenkins[2392]: 2025-03-17 17:37:50.736+0000 [id=33] INFO hudson.lifecycle.Lifecycle$onReady: Jenkins is fully up and running  
Mar 17 17:37:50 LAPTOP-INTAVHGL systemd[1]: Started jenkins.service - Jenkins Continuous Integration Server.  
Mar 17 17:37:53 LAPTOP-INTAVHGL jenkins[2392]: 2025-03-17 17:37:53.053+0000 [id=87] INFO h.m.DownloadService$Downloadable$load: Obtained the updated data file for hudson.tasks.Maven.MavenInstaller  
Mar 17 17:37:53 LAPTOP-INTAVHGL jenkins[2392]: 2025-03-17 17:37:53.055+0000 [id=87] INFO hudson.util.Retrier$start: Performed the action check updates server successfully at the attempt #1
```

## Step 7: (Enter the Administrator Password)

```
Select student@LAPTOP-INTAWHGL: ~
Mar 17 17:37:50 LAPTOP-INTAWHGL jenkins[2392]: 2025-03-17 17:37:50.736+0000 [id=33] INFO
Mar 17 17:37:50 LAPTOP-INTAWHGL systemd[1]: Started jenkins.service - Jenkins Continuous Integration Se
Mar 17 17:37:53 LAPTOP-INTAWHGL jenkins[2392]: 2025-03-17 17:37:53.053+0000 [id=87] INFO
Mar 17 17:37:53 LAPTOP-INTAWHGL jenkins[2392]: 2025-03-17 17:37:53.055+0000 [id=87] INFO
lines 1-19/19 (CLI)
jenkins.service - Jenkins Continuous Integration Server
Loaded: loaded (/usr/lib/systemd/system/jenkins.service; enabled; preset: enabled)
Active: active (running) since Mon 2025-03-17 17:37:50 UTC; 3min 55s ago
Main PID: 2392 (java)
Tasks: 58 (Limit: 9090)
Memory: 949.5M ()
CGroup: /system.slice/jenkins.service
└─2392 /usr/bin/java -Djava.awt.headless=true -jar /usr/share/java/jenkins.war --webroot=/var/cache/jenkins/war --httpPort=8080
Mar 17 17:37:41 LAPTOP-INTAWHGL jenkins[2392]: 5513675f53424271bfec2b0a9121d66a
Mar 17 17:37:41 LAPTOP-INTAWHGL jenkins[2392]: This may also be found at: /var/lib/jenkins/secrets/initialAdminPassword
Mar 17 17:37:41 LAPTOP-INTAWHGL jenkins[2392]: *****
Mar 17 17:37:41 LAPTOP-INTAWHGL jenkins[2392]: *****
Mar 17 17:37:41 LAPTOP-INTAWHGL jenkins[2392]: *****
Mar 17 17:37:50 LAPTOP-INTAWHGL jenkins[2392]: 2025-03-17 17:37:50.706+0000 [id=55] INFO jenkins.InitReactorRunner$1#onAttained: Completed initialization
Mar 17 17:37:50 LAPTOP-INTAWHGL jenkins[2392]: 2025-03-17 17:37:50.736+0000 [id=33] INFO hudson.lifecycle.Lifecycle#onReady: Jenkins is fully up and running
Mar 17 17:37:50 LAPTOP-INTAWHGL systemd[1]: Started jenkins.service - Jenkins Continuous Integration Server.
Mar 17 17:37:53 LAPTOP-INTAWHGL jenkins[2392]: 2025-03-17 17:37:53.053+0000 [id=87] INFO h.m.DownloadService$Downloadable#load: Obtained the updated data file for hudson.tasks.Maven.MavenInstaller
Mar 17 17:37:53 LAPTOP-INTAWHGL jenkins[2392]: 2025-03-17 17:37:53.055+0000 [id=87] INFO hudson.util.Retrier#start: Performed the action check updates server successfully at the attempt #1
```

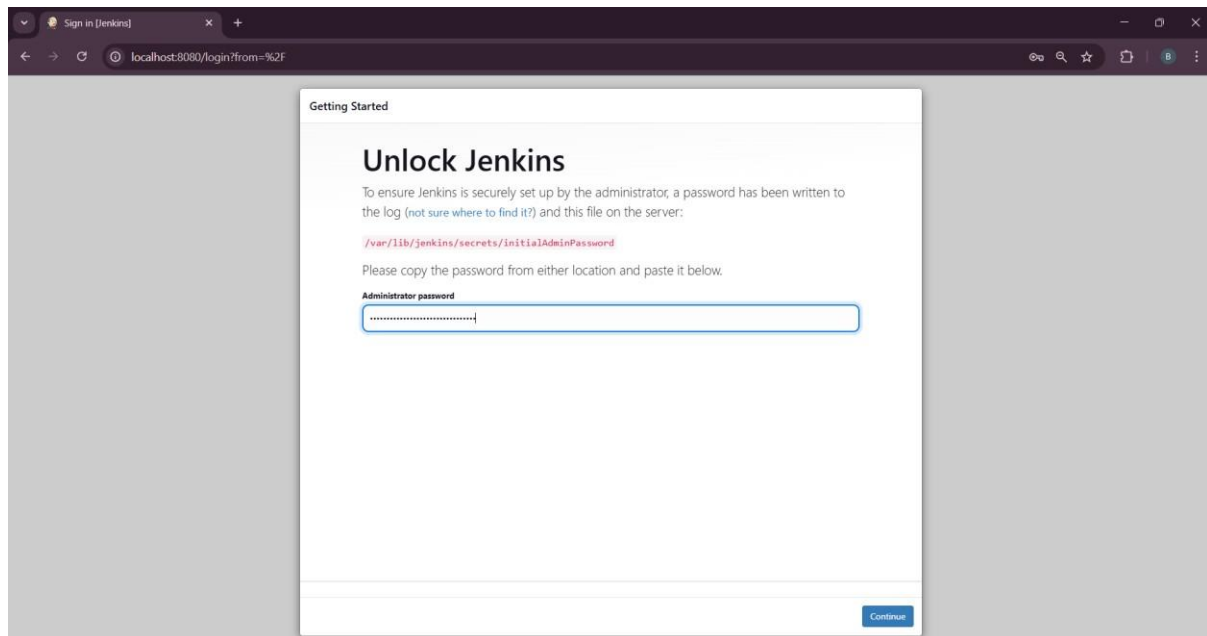
## Step 8: Access Jenkins Web Interface

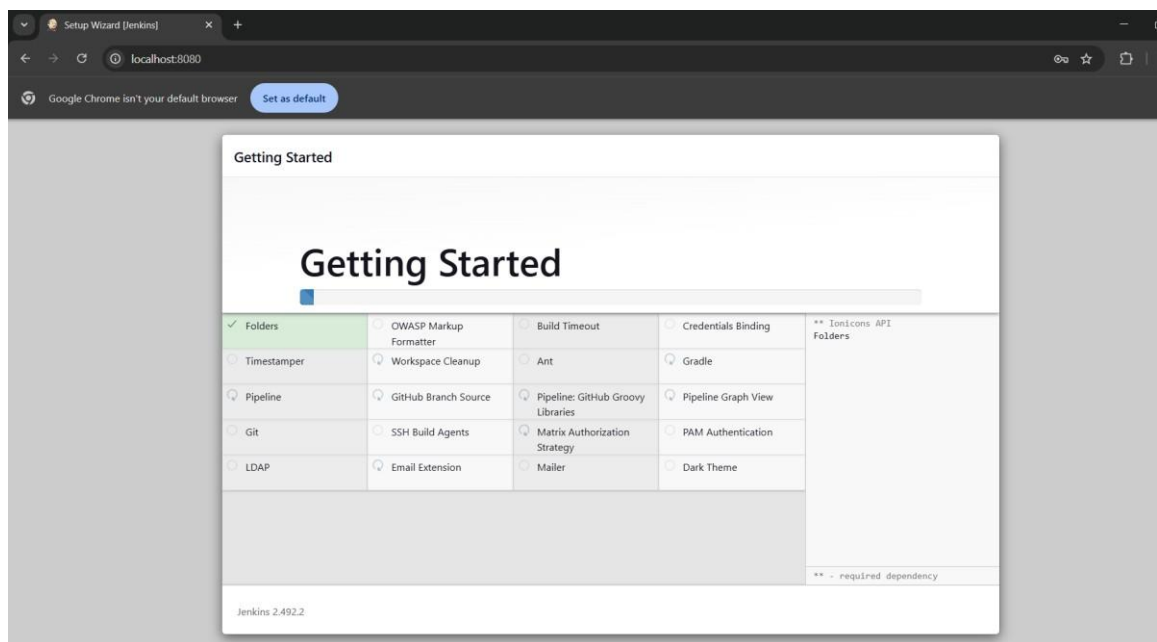
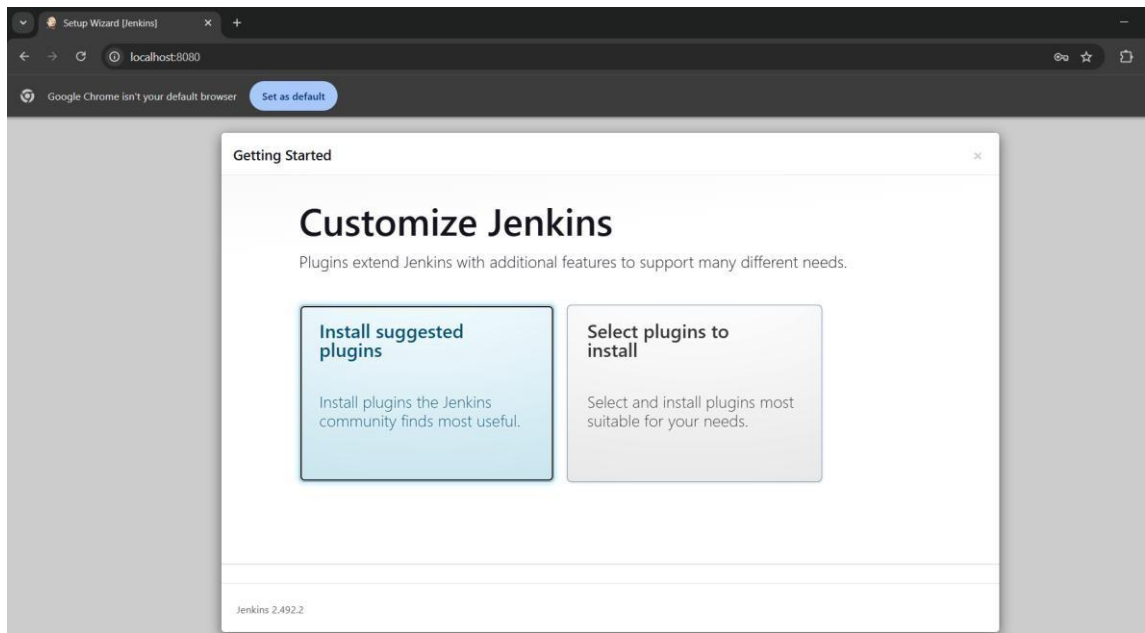
Jenkins will be available at <http://localhost:8080>

To Get the Jenkins Server URL, Follow These Steps:

Method 1: Check the Default URL

By default, Jenkins runs on port 8080. Open in a browser: <http://<your-server-ip>:8080>





## Step 9: (Create First Admin User)

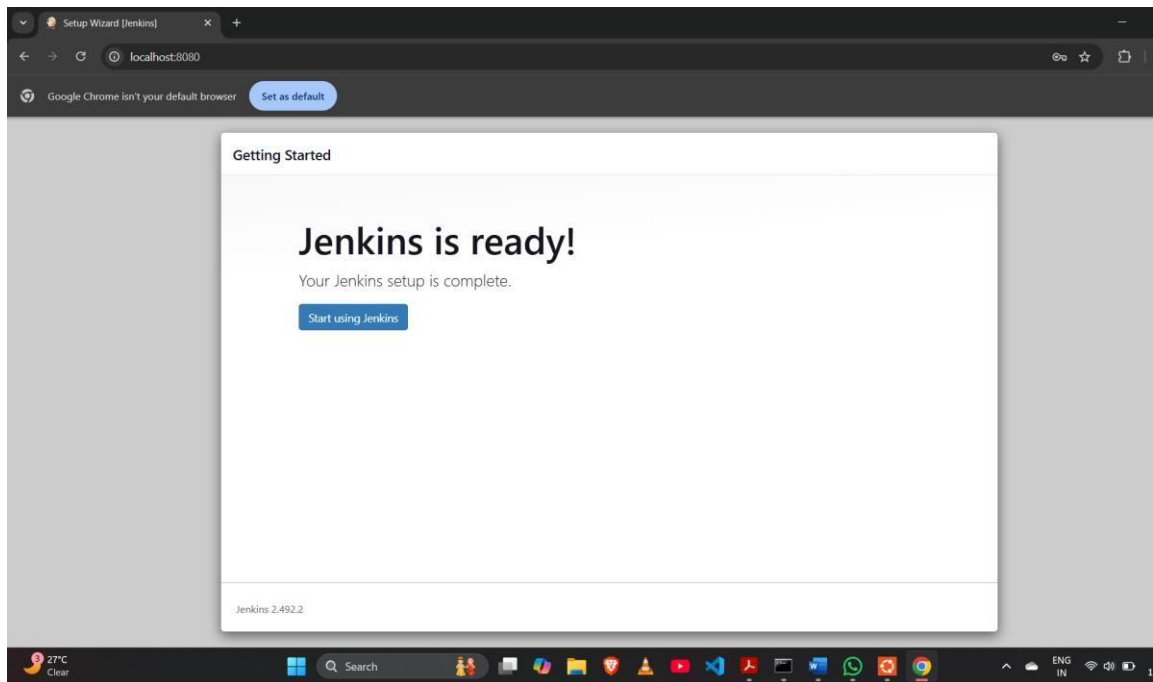
The screenshot shows the Jenkins Setup Wizard interface in a web browser. The browser's address bar displays 'localhost:8080'. The page title is 'Getting Started' and the main heading is 'Create First Admin User'. The form contains the following fields: 'Username' with the value 'bhavana', 'Password' with masked characters '\*\*\*\*\*', 'Confirm password' with masked characters '\*\*\*\*\*', 'Full name' with the value 'Bhavana Sree', and 'E-mail address' with the value 'bhavanashree137@gmail.com'. At the bottom left, it says 'Jenkins 2.492.2'. At the bottom right, there are two buttons: 'Skip and continue as admin' and 'Save and Continue'.

## Step 10: (Enter the URL)

If you're on the same machine as Jenkins, use: <http://localhost:8080>

The screenshot shows the Jenkins Setup Wizard interface in a web browser. The browser's address bar displays 'localhost:8080'. The page title is 'Getting Started' and the main heading is 'Instance Configuration'. The 'Jenkins URL:' field contains the value 'http://localhost:8080/'. Below this field, there is explanatory text: 'The Jenkins URL is used to provide the root URL for absolute links to various Jenkins resources. That means this value is required for proper operation of many Jenkins features including email notifications, PR status updates, and the BUILD\_URL environment variable provided to build steps. The proposed default value shown is **not saved yet** and is generated from the current request, if possible. The best practice is to set this value to the URL that users are expected to use. This will avoid confusion when sharing or viewing links.' At the bottom left, it says 'Jenkins 2.492.2'. At the bottom right, there are two buttons: 'Not now' and 'Save and Finish'.





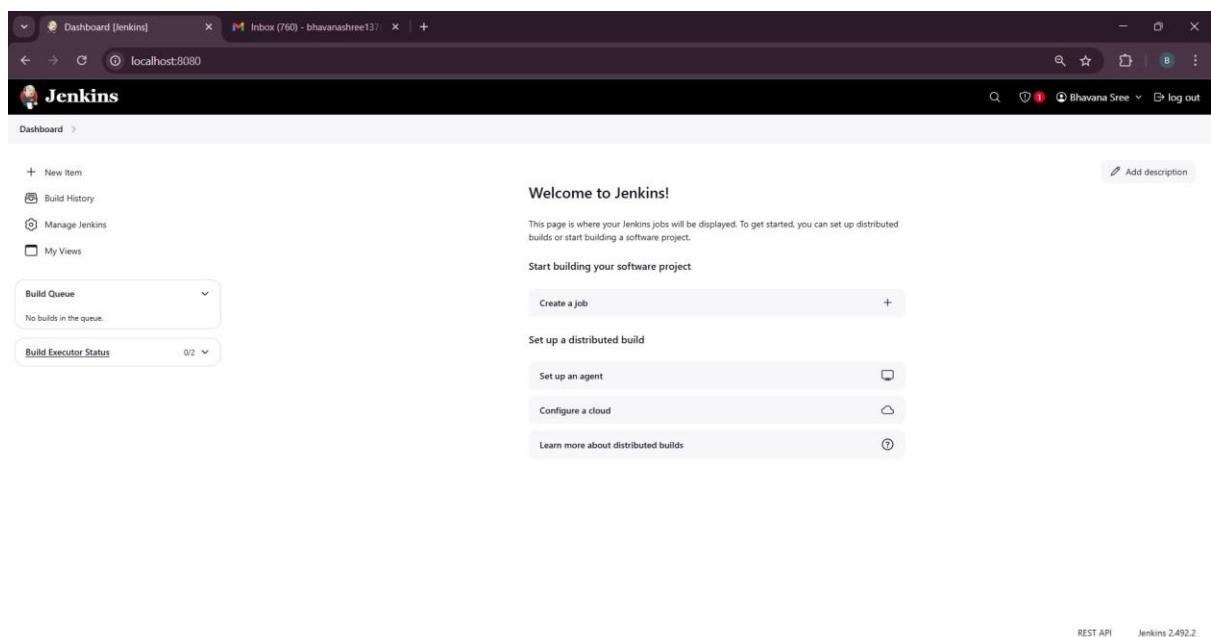
## Step 11:

**(Create an Project ex.ms)**

(In Configure build and Select Execute shell)

(Build the Project)

SELECT BUILD NOW



## Step: 12

## Step-by-Step Guide to Creating a Freestyle Job in Jenkins to Install Nginx Step 1: Create a New Freestyle Job

1. Click on **New Item** from the Jenkins Dashboard.
2. Enter a name for the job, e.g., *Install-Nginx*.
3. Select **Freestyle project**.
4. Click OK.

### Step 2: Configure the Job

#### Add Build Step

1. Scroll down to **Build** → Click *Add build step* → Select **Execute shell**.
2. Paste the following script in the command box:  

```
echo "Updating package lists..." sudo apt update -y echo "Installing Nginx..."  
sudo apt install -y nginx echo "Starting Nginx service..." sudo systemctl start nginx  
echo "Enabling Nginx to start on boot..."  
sudo systemctl enable nginx echo  
"Nginx Installation Completed!"
```

### Step 3: Save and Run the Job

1. Click **Save**.
2. Click **Build Now**.
3. Check the **Console Output** to verify the installation.

### Step 4: Verify the Installation

#### 1. Check Nginx Status `systemctl`

`status nginx`

If running, you should see output like *"active (running)"*.

#### 2. Open Nginx in Browser `http://localhost:80`

You should see the default Nginx welcome page

Dashboard

Install-Nginx

Status

Changes

Workspace

Build Now

Configure

Delete Project

Rename

Builds

No builds

Install-Nginx

Edit description

```
#!/bin/
echo "Updating package lists..."
sudo apt update -y

echo "Installing Nginx..."
sudo apt install -y nginx
echo "Starting Nginx service..."
sudo systemctl start nginx
echo "Enabling Nginx to start on boot..."
sudo systemctl enable nginx
echo "Nginx Installation Completed!"
```

Permalinks

Dashboard [jenkins]

Inbox (760) - bhavanashree137

localhost:8080

Jenkins

Bhavana Sree

log out

Dashboard

New Item

Build History

Manage Jenkins

My Views

Build Queue

No builds in the queue.

Build Executor Status

0/2

All

S	W	Name	Last Success	Last Failure	Last Duration
✓	☀	Install-Nginx	31 sec #1	N/A	0.25 sec

Icon:

S

M

L

Add description

REST API

Jenkins 2.492.2

localhost

Welcome to nginx!

If you see this page, the nginx web server is successfully installed and working. Further configuration is required.

For online documentation and support please refer to [nginx.org](https://nginx.org).  
Commercial support is available at [nginx.com](https://nginx.com).

Thank you for using nginx.