Name: Iniyan B [24MCR035]

Class: I - MCA - "A"

TASK - 1

# **DEVOPS TRAINING**

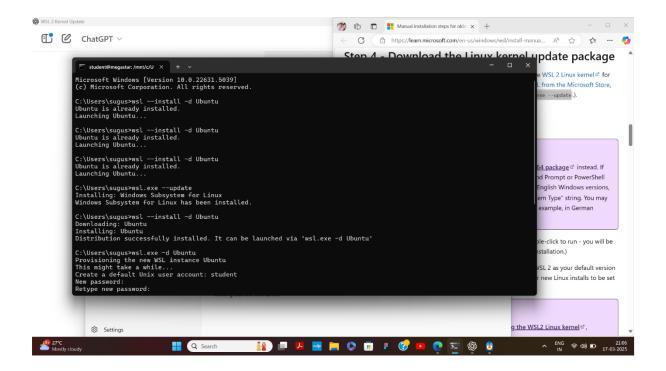
## **Step 1:(Installing Ubuntu)**

#### **Enable WSL**

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

#### **Enable WSL Feature**

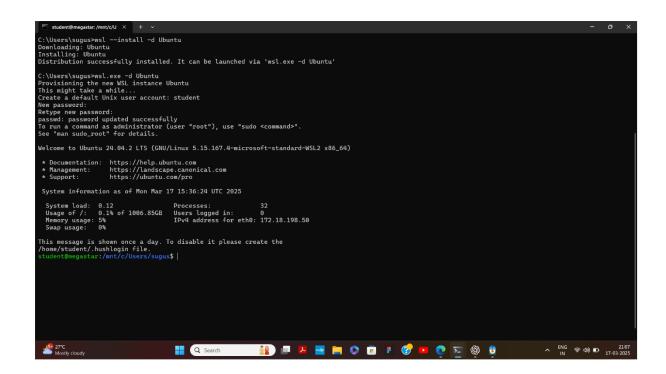
- 1. Open **PowerShell** as Administrator and run:
- 2. wsl-install



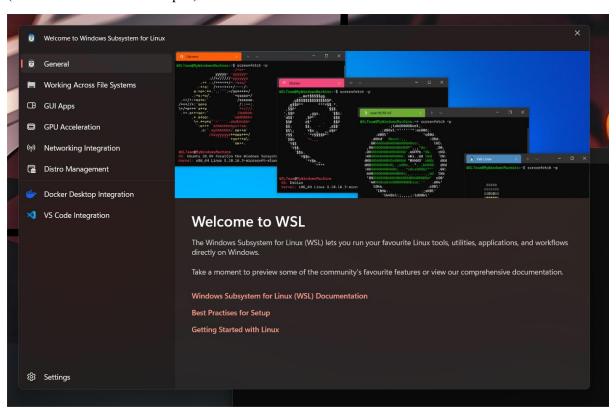
## Step 2: (Set New Password)Set Up Ubuntu

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.



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**

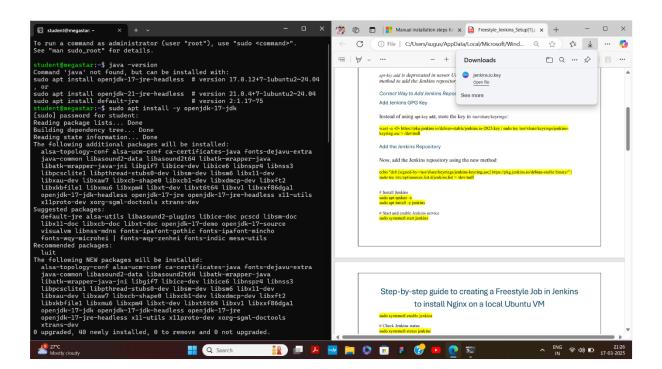
echo "deb [signed-by=/usr/share/keyrings/jenkins-keyring.asc] https://pkg.jenkins.io/debian-stable binary/" | sudo tee /etc/apt/sources.list.d/jenkins.list> /dev/null

## # Install Jenkins

sudo apt update -y

sudo apt install -y jenkins

# Start and enable Jenkins service sudosystemetl start Jenkins



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## **Step 5:Install Jenkins**

sudo apt update -y sudo apt install -y jenkins

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## **Step 6:Check Jenkins Status**

sudosystemctl 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.

sudovisudo

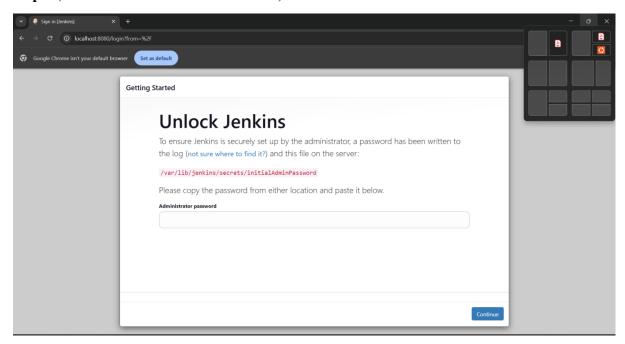
Add the following line at the end:

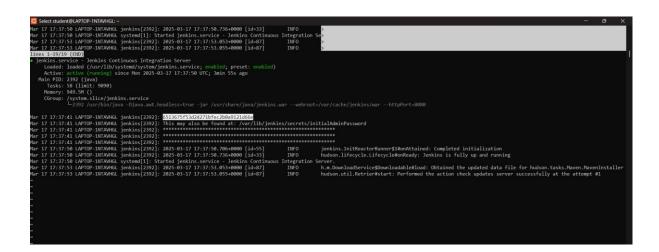
jenkins ALL=(ALL) NOPASSWD: ALL

Save and exit.

```
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## **Step 7:(Enter the Administrator Password)**





## **Step 8: Access Jenkins Web Interface**

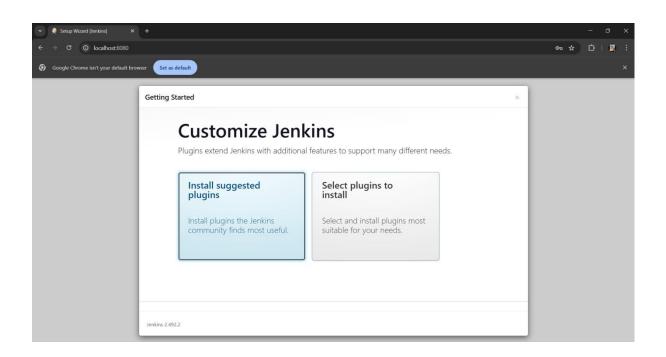
Jenkins will be available at http://localhost:8080

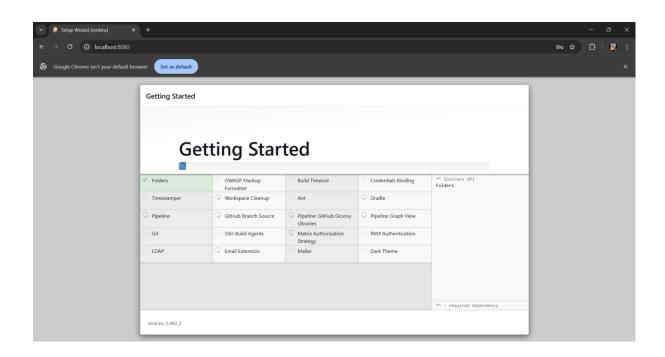
To Get the Jenkins Server URL, Follow These Steps:

Method 1: Check the Default URL

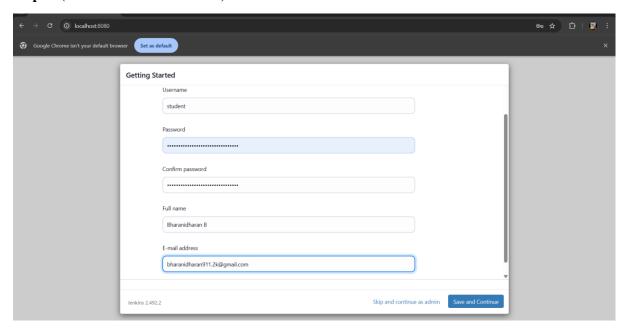
By default, Jenkins runs on port 8080. Open in a browser:

http://<your-server-ip>:8080





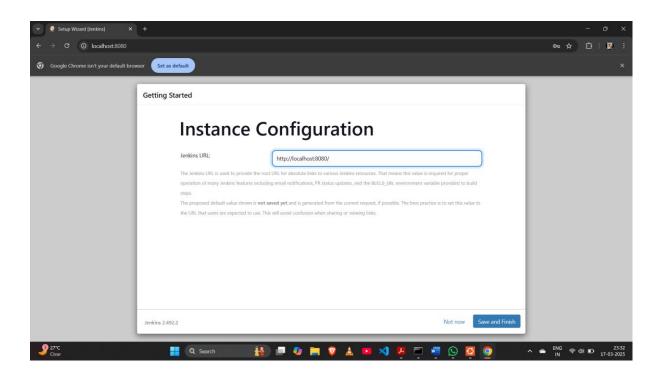
**Step 9: (Create First Admin User)** 

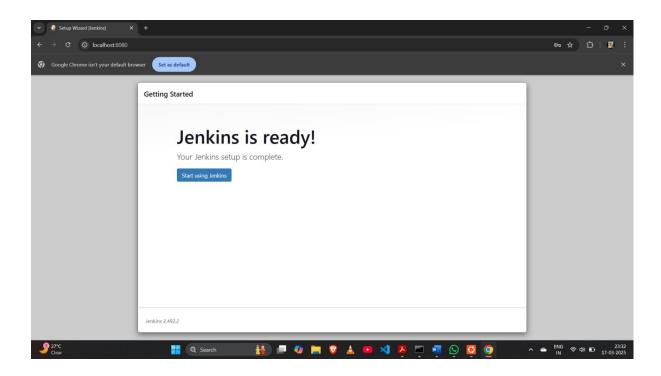


# Step 10: (Enter the URL)

If you're on the same machine as Jenkins, use:

http://localhost:8080





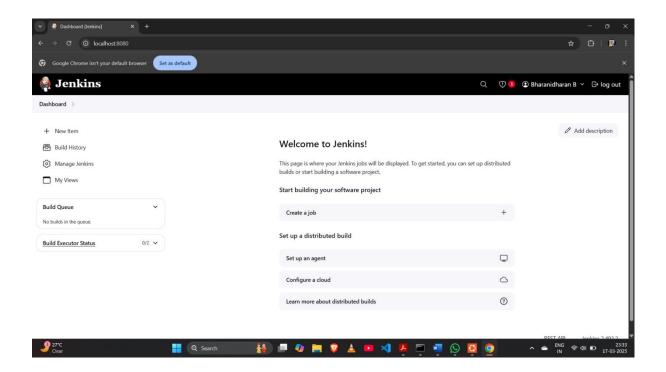
## **Step 11:**

## (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**  $\rightarrow$  Click *Add build step*  $\rightarrow$  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..."

sudosystemctl start nginx

echo "Enabling Nginx to start on boot..."

sudosystemctl 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

