DAY-1

DEVOPS

Installing and Setting Up WSL with Ubuntu on Windows 10

Step 1: 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: Install Ubuntu

- 1. Open Command Prompt or PowerShell and run:
- 2. wsl --install -d Ubuntu
- 3. wsl.exe -d Ubuntu

Step 3: 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.

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

Step 4: Add Jenkins Repository Key

Step 4.1: Add Jenkins GPG Key

wget -q -O- https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key | sudo tee /usr/share/keyrings/jenkinskeyring.asc > /dev/null

Step 4.2: Add 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

Step 5: Install Jenkins

sudo apt update -y sudo apt install -y jenkins

Step 6: Start and Enable Jenkins Service

sudo systemetl start jenkins sudo systemetl enable jenkins

Step 7: Check Jenkins Status

sudo systemctl status jenkins

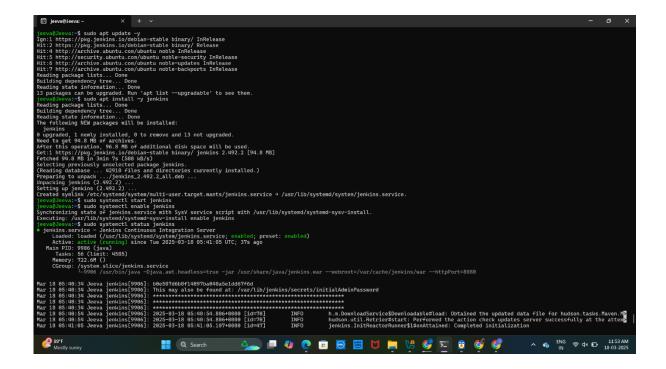
cat copy the localhost:8080 admin path display the password

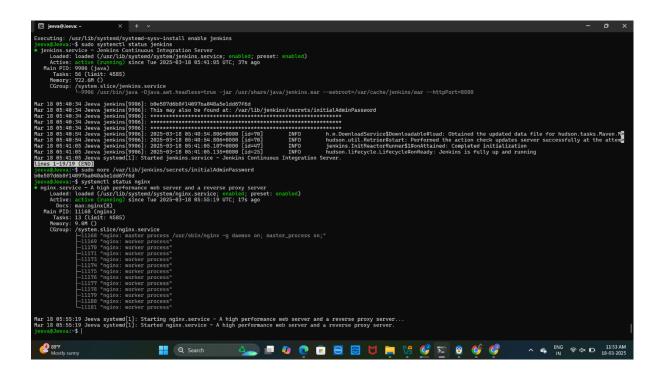
=>By default, Jenkins runs as a system user (jenkins). If your script requires sudo, you must allow the Jenkins user to run commands without a password.

sudo visudo

Add the following line at the end: jenkins ALL=(ALL) NOPASSWD: ALL

Save and exit.





2. 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

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

http://localhost:8080

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..."

sudo systemetl 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

Getting Started ×

Customize Jenkins

Plugins extend Jenkins with additional features to support many different needs.

Install suggested plugins

Install plugins the Jenkins community finds most useful.

Select plugins to install

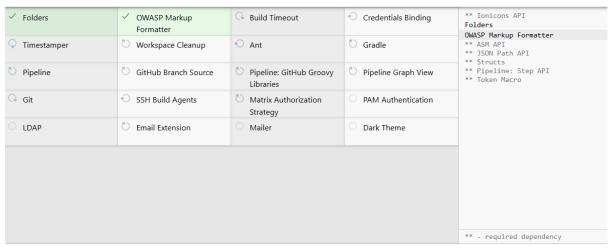
Select and install plugins most suitable for your needs.

Jenkins 2.501

Getting Started

Getting Started





Jenkins 2.501

Jenkins is ready! You have skipped the setup of an admin user. To log in, use the username: "admin" and the administrator password you used to access the setup wizard. You have skipped the configuration of the Jenkins URL. To configure the Jenkins URL, go to "Manage Jenkins" page. Your Jenkins setup is complete. Start using Jenkins

