To install Jenkins on an Ubuntu server, you can follow these steps:

**Step 1: Update Your System** It's a good practice to update your system's package list and upgrade the installed packages to ensure that you have the latest software updates:

bashCopy code

sudo apt update sudo apt upgrade

**Step 2: Install Java** Jenkins requires Java to run. You can install OpenJDK, which is an open-source Java implementation, on your Ubuntu server:

bashCopy code

sudo apt install openjdk-11-jdk

**Step 3: Add Jenkins Repository and Key** Add the Jenkins repository and its GPG key to your system. This step is necessary to ensure you get the latest version of Jenkins:

bashCopy code

wget -q -O - https://pkg.jenkins.io/debian/jenkins.io.key | sudo apt-key add -

Now, add the Jenkins repository:

bashCopy code

sudo sh -c 'echo deb http://pkg.jenkins.io/debian-stable binary/ > /etc/apt/sources.list.d/jenkins.list'

**Step 4: Install Jenkins** Install Jenkins using the package manager:

bashCopy code

sudo apt update sudo apt install jenkins

**Step 5: Start Jenkins** Start the Jenkins service and enable it to start on boot:

bashCopy code

sudo systemctl start jenkins sudo systemctl enable jenkins

**Step 6: Open Firewall Ports (if necessary)** If you have a firewall enabled on your server, you need to open port 8080, which is the default port Jenkins uses for its web interface:

bashCopy code

sudo ufw allow 8080/tcp

If you're not using **ufw**, adjust your firewall rules accordingly.

**Step 7: Retrieve the Initial Admin Password** To access the Jenkins web interface for the first time, you'll need to retrieve the initial admin password. You can do this with the following command:

bashCopy code

sudo cat /var/lib/jenkins/secrets/initialAdminPassword

This command will display a long alphanumeric password. Copy it.

**Step 8: Access Jenkins Web Interface** Open a web browser and navigate to **http://your\_server\_ip\_or\_domain:8080**. You'll be prompted to enter the initial admin password you copied in the previous step.

Follow the on-screen instructions to complete the setup, including creating an admin user and installing recommended plugins.

**Step 9: Jenkins Setup** Once Jenkins is installed and configured, you can start using it to create and manage your CI/CD pipelines. You can install additional plugins and configure Jenkins according to your needs through the web interface.