## 🗱 Documentation: Working with Remote Server in Jenkins (Ubuntu)

#### Overview

This guide explains how to configure Jenkins on an Ubuntu machine to connect and execute jobs on a remote server (for example, another Ubuntu VM).

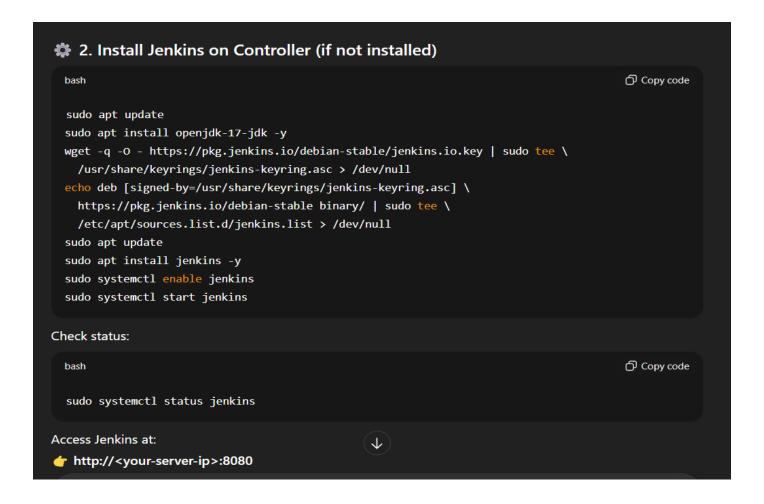
This is commonly used for deployments, automation, and remote build execution.

## 🧮 1. Prerequisites

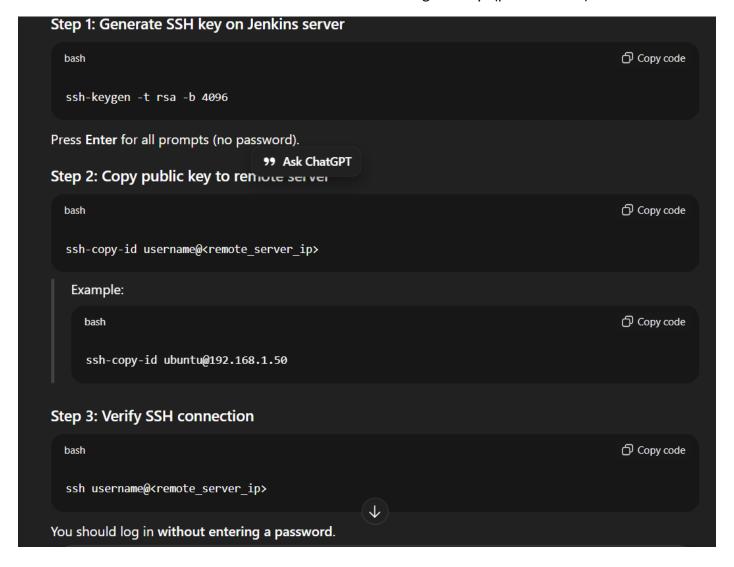
Before you begin, make sure:

- Jenkins is installed and running on the main (controller) machine.
- You have a remote Ubuntu server (agent node) accessible via SSH.
- Both systems can communicate over the network (ping or SSH reachable).
- You have sudo access on both systems.

## 2. Install Jenkins on Controller (if not installed)



You will connect from the Jenkins server  $\rightarrow$  remote server using SSH keys (passwordless).

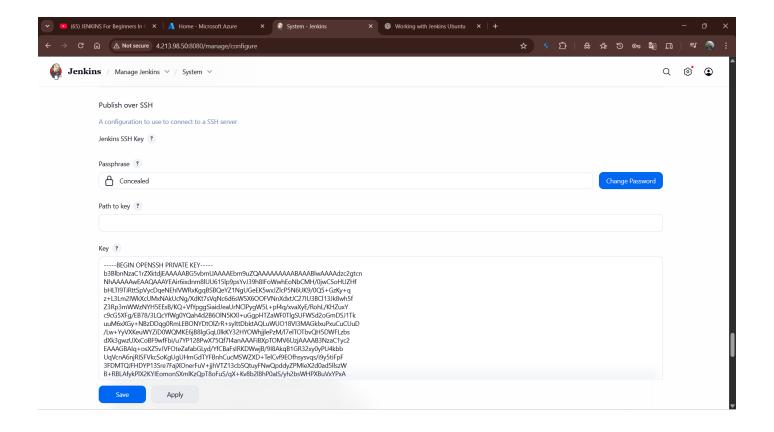


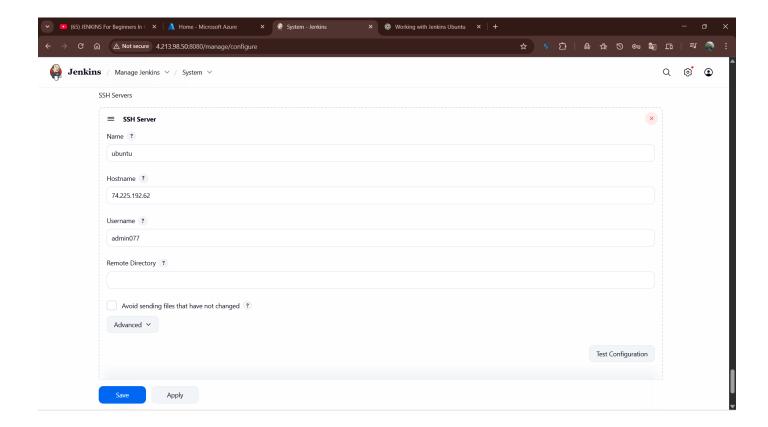
# \* 4. Configure Remote server in Jenkins

Install Publish Over ssh

#### Enter:

- **Host**: <remote\_server\_ip>
- Credentials: click Add → Jenkins → SSH Username with private key
  - o Username: ubuntu
  - o Private Key: select *Enter directly* → paste content of /home/jenkins/.ssh/id\_rsa

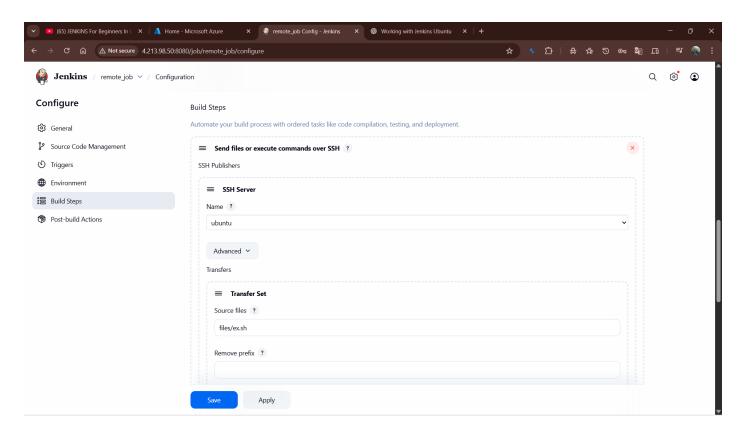


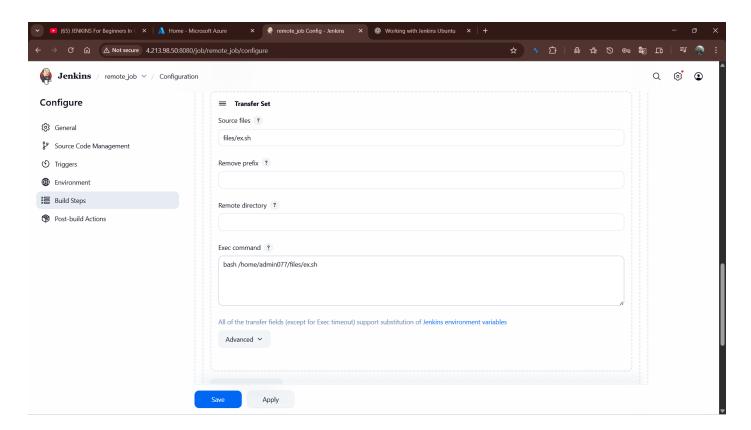


### 5. Create and Run a Job on Remote Server

- Go to Jenkins Dashboard → New Item
- Enter a name → choose Freestyle project → click OK
- In the General tab, check Restrict where this project can be run
- Enter the label: remote-server

- In Build section → click Add build step → Execute shell
- Save and click Build Now





You will see the job executed on the remote server, not on the Jenkins controller.

## 8. Summary

### By following these steps, Jenkins is configured to:

- Connect securely to a remote Ubuntu server using SSH keys.
- Execute build or deployment jobs remotely.
- Scale Jenkins pipelines with distributed build agents.

