Connecting from a Windows laptop to a Linux machine using MobaXterm involves these steps:

**1. Install MobaXterm**

* Download and install MobaXterm.

**2. Get Linux Machine Details**

* Ensure the Linux machine has SSH enabled.
* Note its IP address: Run ifconfig or ip a on the Linux terminal to find the IP.

**3. Configure MobaXterm**

1. **Launch MobaXterm.**
2. Click on **Session** in the top-left corner.
3. Choose **SSH**.

**4. Set Up SSH Session**

* **Remote Host:** Enter the Linux machine’s IP address.
* **Specify Username:** Check this box and enter your Linux username.
* **Port:** Leave as 22 unless configured otherwise.
* Click **OK.**

**5. Connect**

* You’ll see a terminal window.
* Enter your Linux machine’s password when prompted.

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**1. Check if SSH is Installed**

bash

Copy code

which sshd

* If output shows a path (e.g., /usr/sbin/sshd), SSH is installed.
* If not, install it using:
  + **Debian/Ubuntu:**

bash

Copy code

sudo apt update

sudo apt install openssh-server

* + **CentOS/RHEL/Fedora:**

bash

Copy code

sudo yum install openssh-server

* + **Arch Linux:**

bash

Copy code

sudo pacman -S openssh

**2. Check SSH Service Status**

bash

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sudo systemctl status ssh

* If the output says **active (running)**, SSH is enabled.
* If not, start it with:

bash

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sudo systemctl start ssh

**3. Enable SSH at Startup**

bash

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sudo systemctl enable ssh

**4. Check Firewall Rules (if applicable)**

bash

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sudo ufw allow ssh

Verify the firewall status:

bash

Copy code

sudo ufw status

**5. Confirm SSH Listening on Port 22**

bash

Copy code

sudo netstat -tuln | grep :22

Once these steps are done, your Linux machine should be ready to accept SSH connections. Let me know if you encounter any specific issue

++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++osboxes@osboxes:~$ cd .ssh

osboxes@osboxes:~/.ssh$ ls

known\_hosts

osboxes@osboxes:~/.ssh$ ssh-keygen -t ed25519 -C "c92anoop@gmail.com"

Generating public/private ed25519 key pair.

Enter file in which to save the key (/home/osboxes/.ssh/id\_ed25519):

Enter passphrase (empty for no passphrase):

Enter same passphrase again:

Your identification has been saved in /home/osboxes/.ssh/id\_ed25519

Your public key has been saved in /home/osboxes/.ssh/id\_ed25519.pub

The key fingerprint is:

SHA256:st16ddSdiPYSomvsGz3MihxlfotZ4bzjdx0wsEnY7fo c92anoop@gmail.com

The key's randomart image is:

+--[ED25519 256]--+

| o . |

| . + . |

| . \* ..o|

| . \* =..o|

| .oS.o +.o |

| +=\*..o.... |

| .oooX..o.. .|

| . o+Bo=. E . |

| oo\*+=o . |

+----[SHA256]-----+

osboxes@osboxes:~/.ssh$ ls

id\_ed25519 id\_ed25519.pub known\_hosts

osboxes@osboxes:~/.ssh$ $

$: command not found

osboxes@osboxes:~/.ssh$ Start-Service ssh-agent

Start-Service: command not found

osboxes@osboxes:~/.ssh$ Get-Service -Name ssh-agent | Set-Service -StartupType Manual

Set-Service: command not found

Get-Service: command not found

osboxes@osboxes:~/.ssh$ Start-Service ssh-agent^C

osboxes@osboxes:~/.ssh$ cat

id\_ed25519 id\_ed25519.pub known\_hosts

osboxes@osboxes:~/.ssh$ cat id\_ed25519

-----BEGIN OPENSSH PRIVATE KEY-----

b3BlbnNzaC1rZXktdjEAAAAABG5vbmUAAAAEbm9uZQAAAAAAAAABAAAAMwAAAAtzc2gtZW

QyNTUxOQAAACB3L0BhRG9JTeVEjBwySJ8xf5AYRAFo5uCPDjPLwGtMbgAAAJitsFC/rbBQ

vwAAAAtzc2gtZWQyNTUxOQAAACB3L0BhRG9JTeVEjBwySJ8xf5AYRAFo5uCPDjPLwGtMbg

AAAEDnc8jsOuGjiE3KxTzOraQKemJHDoLGKeVdnktVyJ37OXcvQGFEb0lN5USMHDJInzF/

kBhEAWjm4I8OM8vAa0xuAAAAEmM5MmFub29wQGdtYWlsLmNvbQECAw==

-----END OPENSSH PRIVATE KEY-----

osboxes@osboxes:~/.ssh$ cat id\_ed25519.pub

ssh-ed25519 AAAAC3NzaC1lZDI1NTE5AAAAIHcvQGFEb0lN5USMHDJInzF/kBhEAWjm4I8OM8vAa0xu c92anoop@gmail.com

osboxes@osboxes:~/.ssh$ cd

osboxes@osboxes:~$ git clone git@github.com:anoopc92/Git\_connect.git

Cloning into 'Git\_connect'...

warning: You appear to have cloned an empty repository.

osboxes@osboxes:~$ ls

Desktop Documents Downloads Git\_connect Music Pictures Public Templates Videos

osboxes@osboxes:~$ cd Git\_connect/

osboxes@osboxes:~/Git\_connect$ ls

osboxes@osboxes:~/Git\_connect$ git remote -v

origin git@github.com:anoopc92/Git\_connect.git (fetch)

origin git@github.com:anoopc92/Git\_connect.git (push)

osboxes@osboxes:~/Git\_connect$ touch file1.txt

osboxes@osboxes:~/Git\_connect$ git status

On branch master

No commits yet

Untracked files:

(use "git add <file>..." to include in what will be committed)

file1.txt

nothing added to commit but untracked files present (use "git add" to track)

osboxes@osboxes:~/Git\_connect$ git add .

osboxes@osboxes:~/Git\_connect$ git commit

Aborting commit due to empty commit message.

osboxes@osboxes:~/Git\_connect$ git commit -m "this is the first commit"

[master (root-commit) 4290f26] this is the first commit

1 file changed, 0 insertions(+), 0 deletions(-)

create mode 100644 file1.txt

osboxes@osboxes:~/Git\_connect$ git branch

\* master

osboxes@osboxes:~/Git\_connect$ git push origin main

error: src refspec main does not match any

error: failed to push some refs to 'git@github.com:anoopc92/Git\_connect.git'

osboxes@osboxes:~/Git\_connect$ git push origin master

Enumerating objects: 3, done.

Counting objects: 100% (3/3), done.

Writing objects: 100% (3/3), 213 bytes | 213.00 KiB/s, done.

Total 3 (delta 0), reused 0 (delta 0)

To github.com:anoopc92/Git\_connect.git

\* [new branch] master -> master

osboxes@osboxes:~/Git\_connect$

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login as: osboxes

osboxes@192.168.20.9's password:

┌──────────────────────────────────────────────────────────────────────┐

│ • MobaXterm Personal Edition v23.6 • │

│ (SSH client, X server and network tools) │

│ │

│ ⮞ SSH session to osboxes@192.168.20.9 │

│ • Direct SSH : ✓ │

│ • SSH compression : ✓ │

│ • SSH-browser : ✓ │

│ • X11-forwarding : ✓ (remote display is forwarded through SSH) │

│ │

│ ⮞ For more info, ctrl+click on help or visit our website. │

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Welcome to Ubuntu 20.04.4 LTS (GNU/Linux 5.13.0-30-generic x86\_64)

\* Documentation: https://help.ubuntu.com

\* Management: https://landscape.canonical.com

\* Support: https://ubuntu.com/advantage

525 updates can be applied immediately.

434 of these updates are standard security updates.

To see these additional updates run: apt list --upgradable

The list of available updates is more than a week old.

To check for new updates run: sudo apt update

Last login: Fri Dec 6 02:44:28 2024 from 192.168.20.2

osboxes@osboxes:~$

osboxes@osboxes:~$ which sshd

/usr/sbin/sshd

osboxes@osboxes:~$ sudo systemct1 status ssh

[sudo] password for osboxes:

sudo: systemct1: command not found

osboxes@osboxes:~$ sudo systemctl status ssh

● ssh.service - OpenBSD Secure Shell server

Loaded: loaded (/lib/systemd/system/ssh.service; enabled; vendor preset: enabled)

Active: active (running) since Sun 2024-12-15 22:27:52 EST; 25min ago

Docs: man:sshd(8)

man:sshd\_config(5)

Process: 778 ExecStartPre=/usr/sbin/sshd -t (code=exited, status=0/SUCCESS)

Main PID: 802 (sshd)

Tasks: 1 (limit: 3753)

Memory: 6.1M

CGroup: /system.slice/ssh.service

└─802 sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups

Dec 15 22:27:52 osboxes systemd[1]: Starting OpenBSD Secure Shell server...

Dec 15 22:27:52 osboxes sshd[802]: Server listening on 0.0.0.0 port 22.

Dec 15 22:27:52 osboxes sshd[802]: Server listening on :: port 22.

Dec 15 22:27:52 osboxes systemd[1]: Started OpenBSD Secure Shell server.

Dec 15 22:49:50 osboxes sshd[2378]: Accepted password for osboxes from 192.168.20.3 port 59684 ssh2

Dec 15 22:49:50 osboxes sshd[2378]: pam\_unix(sshd:session): session opened for user osboxes by (uid=0)

Dec 15 22:49:51 osboxes sshd[2395]: Accepted password for osboxes from 192.168.20.3 port 59687 ssh2

Dec 15 22:49:51 osboxes sshd[2395]: pam\_unix(sshd:session): session opened for user osboxes by (uid=0)

osboxes@osboxes:~$ git version --

git version 2.25.1

osboxes@osboxes:~$ git config --global user.name anoopc92

osboxes@osboxes:~$ git config --global user.email c92anoop@gmail.com

osboxes@osboxes:~$ git init

Initialized empty Git repository in /home/osboxes/.git/

osboxes@osboxes:~$ git add Readme.md

fatal: pathspec 'Readme.md' did not match any files

osboxes@osboxes:~$ git init

Reinitialized existing Git repository in /home/osboxes/.git/

osboxes@osboxes:~$ git remote add orgin git@github.com:anoopc92/Helloworld\_project.git

osboxes@osboxes:~$ git remote add origin git@github.com:anoopc92/Helloworld\_project.git

osboxes@osboxes:~$ git push -u origin main

error: src refspec main does not match any

error: failed to push some refs to 'git@github.com:anoopc92/Helloworld\_project.git'

osboxes@osboxes:~$ echo "# Helloworld\_project" >> README.md

osboxes@osboxes:~$ git init

Reinitialized existing Git repository in /home/osboxes/.git/

osboxes@osboxes:~$ git add README.md

osboxes@osboxes:~$ git commit -m "first commit"

[master (root-commit) a4fbe6e] first commit

1 file changed, 1 insertion(+)

create mode 100644 README.md

osboxes@osboxes:~$ git branch -M main

osboxes@osboxes:~$ git remote add origin git@github.com:anoopc92/Helloworld\_project.git

fatal: remote origin already exists.

osboxes@osboxes:~$ git push -u origin main

Enumerating objects: 3, done.

Counting objects: 100% (3/3), done.

Writing objects: 100% (3/3), 225 bytes | 225.00 KiB/s, done.

Total 3 (delta 0), reused 0 (delta 0)

To github.com:anoopc92/Helloworld\_project.git

\* [new branch] main -> main

Branch 'main' set up to track remote branch 'main' from 'origin'.

osboxes@osboxes:~$ echo "# my\_project" >> Python.py

osboxes@osboxes:~$ git init

Reinitialized existing Git repository in /home/osboxes/.git/

osboxes@osboxes:~$ git add Hello.py

fatal: pathspec 'Hello.py' did not match any files

osboxes@osboxes:~$ git commit -m "first commit"

On branch main

Your branch is up to date with 'origin/main'.

Untracked files:

(use "git add <file>..." to include in what will be committed)

.Xauthority

.bash\_history

.bash\_logout

.bashrc

.cache/

.config/

.gitconfig

.gnupg/

.local/

.mozilla/

.profile

.ssh/

.sudo\_as\_admin\_successful

.vboxclient-clipboard.pid

.vboxclient-display-svga-x11.pid

.vboxclient-draganddrop.pid

.vboxclient-seamless.pid

Desktop/

Downloads/

Git\_connect/

Python.py

nothing added to commit but untracked files present (use "git add" to track)

osboxes@osboxes:~$ git branch -M main

osboxes@osboxes:~$ git remote add origin git@github.com:anoopc92/my\_project.git

fatal: remote origin already exists.

osboxes@osboxes:~$ git push -u origin main

Branch 'main' set up to track remote branch 'main' from 'origin'.

Everything up-to-date

osboxes@osboxes:~$ git clone git@github.com:anoopc92/Helloworld\_project.git

Cloning into 'Helloworld\_project'...

remote: Enumerating objects: 3, done.

remote: Counting objects: 100% (3/3), done.

remote: Total 3 (delta 0), reused 3 (delta 0), pack-reused 0 (from 0)

Receiving objects: 100% (3/3), done.

osboxes@osboxes:~$ cd Helloworld\_project

osboxes@osboxes:~/Helloworld\_project$ echo "for i in range(1, 6): print('\*' \* i)" > python1.py

osboxes@osboxes:~/Helloworld\_project$ git add python1.py

osboxes@osboxes:~/Helloworld\_project$ git commit -m "python trial file"

[main e02a1a2] python trial file

1 file changed, 1 insertion(+)

create mode 100644 python1.py

osboxes@osboxes:~/Helloworld\_project$ git push -u origin Python\_trial

error: src refspec Python\_trial does not match any

error: failed to push some refs to 'git@github.com:anoopc92/Helloworld\_project.git'

osboxes@osboxes:~/Helloworld\_project$ git push -u origin new-branch-name

error: src refspec new-branch-name does not match any

error: failed to push some refs to 'git@github.com:anoopc92/Helloworld\_project.git'

osboxes@osboxes:~/Helloworld\_project$ ^C

osboxes@osboxes:~/Helloworld\_project$ git branch

\* main

osboxes@osboxes:~/Helloworld\_project$ git checkout -b python\_trial

Switched to a new branch 'python\_trial'

osboxes@osboxes:~/Helloworld\_project$ git add python1.py

osboxes@osboxes:~/Helloworld\_project$ git commit -m "Add star printing code in python1.py"

On branch python\_trial

nothing to commit, working tree clean

osboxes@osboxes:~/Helloworld\_project$ git push -u origin python\_trial

Enumerating objects: 4, done.

Counting objects: 100% (4/4), done.

Delta compression using up to 3 threads

Compressing objects: 100% (2/2), done.

Writing objects: 100% (3/3), 315 bytes | 315.00 KiB/s, done.

Total 3 (delta 0), reused 0 (delta 0)

remote:

remote: Create a pull request for 'python\_trial' on GitHub by visiting:

remote: https://github.com/anoopc92/Helloworld\_project/pull/new/python\_trial

remote:

To github.com:anoopc92/Helloworld\_project.git

\* [new branch] python\_trial -> python\_trial

Branch 'python\_trial' set up to track remote branch 'python\_trial' from 'origin'.

osboxes@osboxes:~/Helloworld\_project$

osboxes@osboxes:~/Helloworld\_project$

Merge conflict