

Troubleshooting SSH issues:

Problem1:

When i tried to ssh I was facing an error.

```
$ ssh -i my-key.pem ec2-user@54.203.12.45
ssh: connect to host 54.203.12.45 port 22: Connection timed out
```

To resolve,

I Started by checking with the firewall like at instance level i.e SecurityGroups (ensure that inbound rule allows ssh port (22)) and do the same at subnet level i.e Network Access Control List(NACL).

I found the issue in SecurityGroups, it wasn't allowing the ssh port(22).

So, I have added a ssh port into SecurityGroups. After a few minutes it worked.

Problem2:

Error: User key not recognized by server:

failed authentication attempt: i tried to login with PuTTY it was showing error

```
2025-02-20 12:45:10 Looking up host "54.203.12.45"
2025-02-20 12:45:10 Connecting to 54.203.12.45 port 22
2025-02-20 12:45:10 Server version: SSH-2.0-OpenSSH_7.4
2025-02-20 12:45:10 Using SSH protocol version 2
2025-02-20 12:45:10 We claim version: SSH-2.0-PuTTY_Release_0.78
2025-02-20 12:45:11 Using Diffie-Hellman with SHA-256 key exchange
2025-02-20 12:45:11 Server also has ssh-rsa host key, but we don't know it
2025-02-20 12:45:11 Host key fingerprint is:
2025-02-20 12:45:11 ssh-rsa 2048 SHA256:GhJKlMnOpQrStUvWxYz1234567890abcDEFghiJKL
2025-02-20 12:45:11 Initialised AES-256 SDCTR client->server encryption
2025-02-20 12:45:11 Initialised AES-256 SDCTR server->client encryption
2025-02-20 12:45:11 Attempting public-key authentication
```

```
2025-02-20 12:45:11 Offered public key
2025-02-20 12:45:11 Server refused our key
2025-02-20 12:45:11 Attempting keyboard-interactive authentication
2025-02-20 12:45:11 No supported authentication methods available
```

```
Disconnected: No supported authentication methods available (server sent: publickey)
```

To resolve, I read the aws doc's i found this point

If you use PuTTY to connect to your instance

- Verify that your private key (.pem) file has been converted to the format recognized by PuTTY (.ppk). For more information about converting your private key, see [Connect to your Linux instance using PuTTY](#).

I followed the steps as mentioned in the link, It worked.

Problem3:

I was ssh to ec2 then I got an error like 'Permission denied'.

```
$ ssh -vvv -i my-key.pem ec2-user@54.203.12.45
OpenSSH_8.2p1 Ubuntu-4ubuntu0.5, OpenSSL 1.1.1f 31 Mar 2020
debug1: Reading configuration data /home/user/.ssh/config
debug1: Reading configuration data /etc/ssh/ssh_config
debug2: resolving "54.203.12.45" port 22
debug1: Connecting to 54.203.12.45 [54.203.12.45] port 22.
debug1: Connection established.
debug1: identity file my-key.pem type -1
debug1: identity file my-key.pem-cert type -1
debug1: Local version string SSH-2.0-OpenSSH_8.2p1 Ubuntu-4ubuntu0.5
debug1: Remote protocol version 2.0, remote software version OpenSSH_7.4
debug1: Authenticating to 54.203.12.45:22 as 'ec2-user'
```

```
debug1: SSH2_MSG_KEXINIT sent
debug1: SSH2_MSG_KEXINIT received
debug1: kex: algorithm: ecdh-sha2-nistp256
debug1: kex: host key algorithm: ssh-rsa
debug1: kex: server->client cipher: aes128-ctr MAC: umac-64-etm@openssh.com compression: none
debug1: kex: client->server cipher: aes128-ctr MAC: umac-64-etm@openssh.com compression: none
debug1: expecting SSH2_MSG_KEX_ECDH_REPLY
debug1: Server host key: ssh-rsa SHA256:GhJKlMnOpQrStUvWxYz1234567890abcDEFghiJKL
debug1: Host '54.203.12.45' is known and matches the RSA host key.
debug1: Found key in /home/user/.ssh/known_hosts:1
debug1: Connection established.
debug1: Offering public key: RSA SHA256:XyZabc123DEF456Ghi789JKL012MNO345 my-key.pem
```

```
debug1: Offering public key: RSA SHA256:XyZabc123DEF456Ghi789JKL012MNO345 my-key.pem
debug1: Authentications that can continue: publickey
debug1: Trying private key: my-key.pem
debug1: read PEM private key done: type RSA
debug3: sign_and_send_pubkey: RSA SHA256:XyZabc123DEF456Ghi789JKL012MNO345
debug1: Authentications that can continue: publickey
debug1: No more authentication methods to try.
Permission denied (publickey).
```

To resolve it, I checked the permissions of the file. And found out that it was inappropriate permissions. It worked.

```
$ ls -l my-key.pem
-rw-r--r-- 1 user user 1679 Feb 20 12:00 my-key.pem
```

```
$ chmod 400 my-key.pem
```

```
$ ls -l my-key.pem
-r----- 1 user user 1679 Feb 20 12:05 my-key.pem
```

```
$ ssh -i my-key.pem ec2-user@54.203.12.45
```

```
The authenticity of host '54.203.12.45 (54.203.12.45)' can't be established.
ECDSA key fingerprint is SHA256:abc123xyz456def789ghi012jkl345mno678pqr901stu.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added '54.203.12.45' (ECDSA) to the list of known hosts.

[ec2-user@ip-172-31-45-123 ~]$
```

Problem4:

One Time I was having an issue with 'UNPROTECTED PRIVATE KEY FILE'. And I checked the file permissions.

```
$ ssh -i my-key.pem ec2-user@54.203.12.45
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
@                WARNING: UNPROTECTED PRIVATE KEY FILE!                @
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
Permissions 0777 for 'my-key.pem' are too open.
It is required that your private key files are NOT accessible by others.
This private key will be ignored.

Load key "my-key.pem": bad permissions
ec2-user@54.203.12.45: Permission denied (publickey).
```

```
$ ls -l my-key.pem
-rwxrwxrwx 1 user user 1679 Feb 20 12:00 my-key.pem
```

To resolve, change the file permissions to only if the owner has read permission.

```
$ chmod 400 my-key.pem

$ ls -l my-key.pem
-r----- 1 user user 1679 Feb 20 12:05 my-key.pem

$ ssh -i my-key.pem ec2-user@54.203.12.45
The authenticity of host '54.203.12.45 (54.203.12.45)' can't be established.
ECDSA key fingerprint is SHA256:abc123xyz456def789ghi012jkl345mno678pqr901stu.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added '54.203.12.45' (ECDSA) to the list of known hosts.

[ec2-user@ip-172-31-45-123 ~]$
```

Problem4:

I'm Unable to ping ec2 instances.

To resolve,

I Checked it with Security Groups, and added an 'ICMP' port (which allows ping to a server).

Then I tried it again and it worked.

Problem 5:

Recently I lost the private key file of my ec2-instance. Then I did some research, i found out below steps to login into my ec2:

Step 1: Launch a temporary instance.

Step 2: Detach the root volume from the original instance and attach it to the temporary instance.

Step 3: Add the new public key to authorized_keys on the original volume mounted to the temporary instance.

Step 4: Unmount and detach the original volume from the temporary instance, and reattach it to the original instance.

Step 5: Connect to the original instance using the new key pair.

When I ssh with the new key, it worked.