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To connect ubuntu server to vs code through remote explorer extension:

first we open ubuntu server and install the following:

```
sudo apt update
```

```
sudo apt install openssh-server
```

these let the vs code able to connect to the machine through ssh

then we can make sure if it is running or not through the command:

```
sudo systemctl status ssh
```

```
hsen1@server1:~$ sudo systemctl status ssh
● ssh.service - OpenBSD Secure Shell server
   Loaded: loaded (/lib/systemd/system/ssh.service; enabled; vendor preset: en
   Active: active (running) since Tue 2025-11-11 19:20:05 UTC; 5min ago
     Docs: man:sshd(8)
           man:sshd_config(5)
   Main PID: 725 (sshd)
     Tasks: 1 (limit: 2565)
    Memory: 8.1M
       CPU: 197ms
    CGroup: /system.slice/ssh.service
            └─725 "sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups"

Nov 11 19:20:04 server1 systemd[1]: Starting OpenBSD Secure Shell server...
Nov 11 19:20:05 server1 sshd[725]: Server listening on 0.0.0.0 port 22.
Nov 11 19:20:05 server1 sshd[725]: Server listening on :: port 22.
Nov 11 19:20:05 server1 systemd[1]: Started OpenBSD Secure Shell server.
Nov 11 19:23:18 server1 sshd[1388]: Accepted password for hsen1 from 10.130.97.
Nov 11 19:23:18 server1 sshd[1388]: pam_unix(sshd:session): session opened for
Nov 11 19:23:18 server1 sshd[1390]: Accepted password for hsen1 from 10.130.97.
Nov 11 19:23:18 server1 sshd[1390]: pam_unix(sshd:session): session opened for
lines 1-20/20 (END)
```

And we make the vm network bridged to connect directly to the machine

Then download remote – SSH on vscode and Remote Explorer and go, python, java

Now adding the machine to vscode:

>remote-ssh: add new ssh host

Remote-SSH: Add New SSH Host...

Enter SSH Connection Command

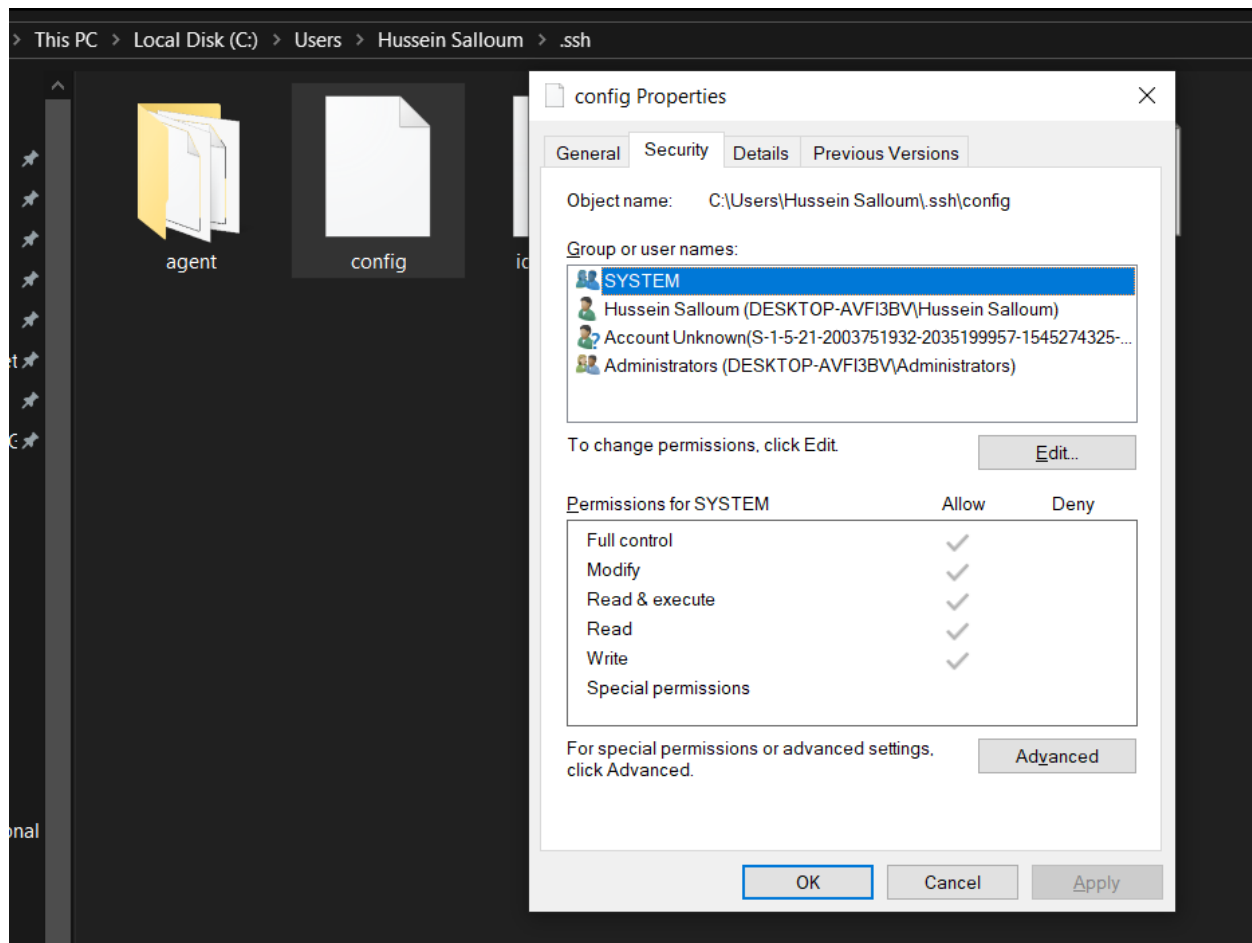
ssh hsen1@10.130.97.176

Press 'Enter' to confirm your input or 'Escape' to cancel

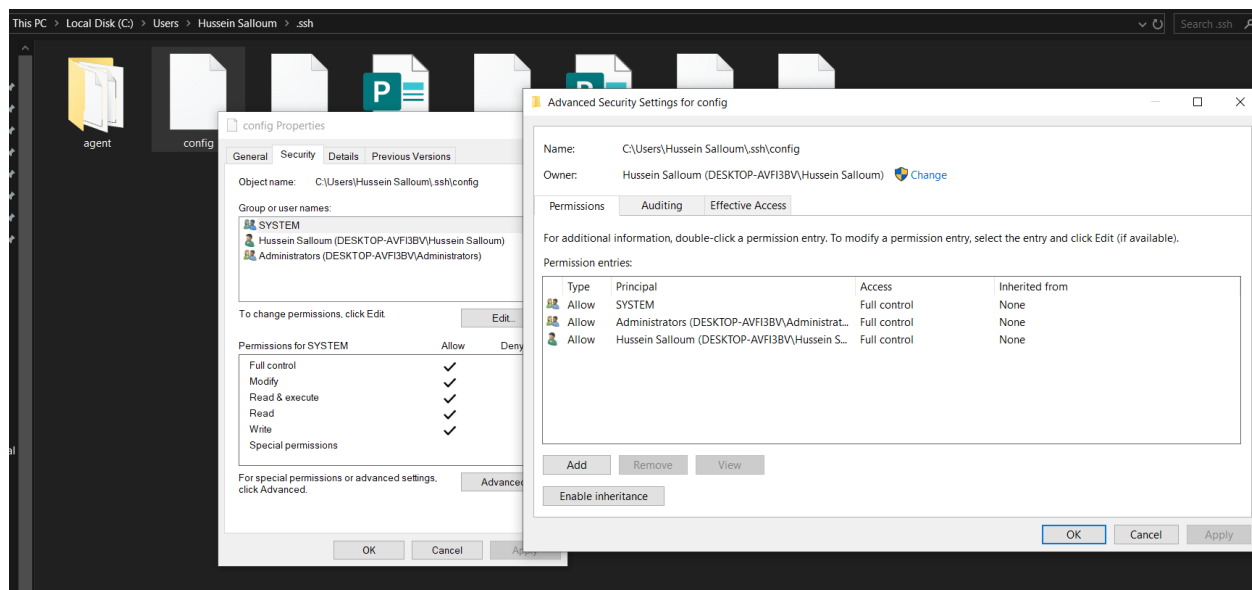
When trying to connect I go this problem:

```
[22:52:13.008] Terminal shell path: C:\Windows\System32\cmd.exe
[22:52:13.607] > Bad permissions. Try removing permissions for user: UNKNOWN\UNKNOWN (S-1-5-21-2
> 003751932-2035199957-1545274325-1003) on file C:/Users/Hussein Salloum/.ssh/conf
> ig.
> Bad owner or permissions on C:\\Users\\Hussein Salloum/.ssh/config
[22:52:13.607] Got some output - clearing connection timeout
```

We solve it by:

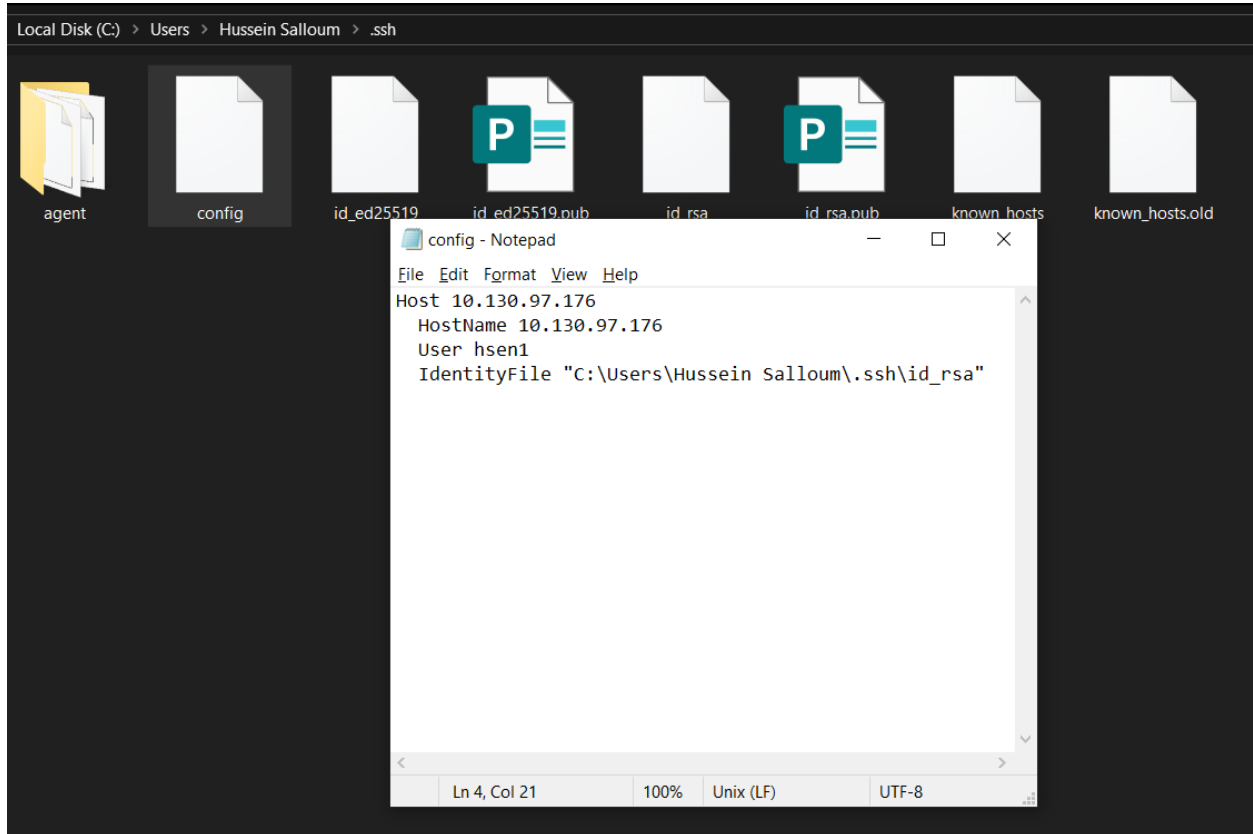


So we have to remove the strange user and disable inheritance:



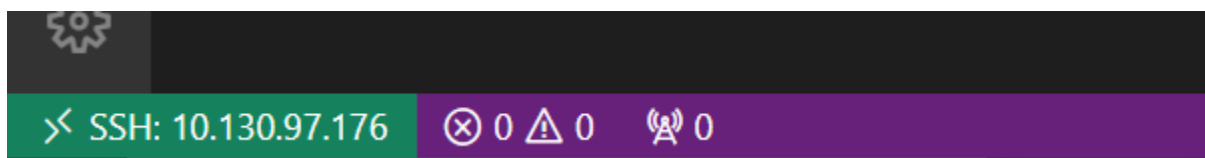
Now connecting through keys (without using password):

In the config file we write the following:



We also copy the public ckey (id_rsa.pub content) and paste it in the ubuntu machine in ~/.ssh/authorized_keys file

Now vscode connects to the machine through ssh successfully and passwordless



Now we download the extensions and the packages on the ubuntu machine.

Then we perform the second option of the homework