

Virtual Machine setup for CSC3050 and CSC3150 in VSCode (Win10 only)

Virtual Box

We use Virtual Box for all three virtual machines.

Link for Virtual Box downloading: <https://www.virtualbox.org/wiki/Downloads>

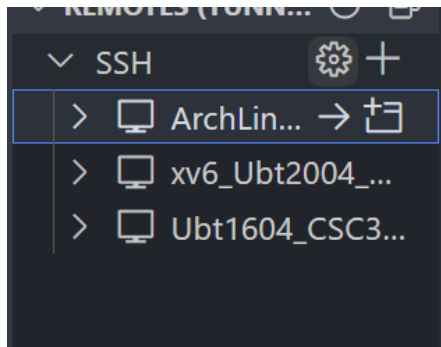
CSC3050 Virtual Machine Setup (ArchLinux)

To setup the VM, refer to the attached file "CSC3050_ArchLinux_Setup.pdf" in the workspace folder.

After running the VM successfully, we can set the VSCode for this VM.

Before starting this, read the post: [VScode SSH远程虚拟机中ubuntu系统开发以及解决SSH需要频繁输入密码问题_虚拟机输入密码一直反复输入_Fighting_1997的博客-CSDN博客](#)

Add the code below to the config file. You can directly modify the config file in VSCode or go to the path `C:\Users\{username}\.ssh\config` to modify it. For details about how to modify the config file, you can also go to CSDN for more information.



```
Host ArchLinux_CSC3050
```

```
    HostName 127.0.0.1
```

```
    Port 5678
```

```
    User csc3050
```

Then we run the virtual machine in the VSCode. Note that each time you open the folder, you need to input the password. Latter I will show how to avoid repeatedly inputting the password.

CSC3150 Virtual Machine Setup (AS1&AS2)

Refer to the link [Windows \(AMD/Intel x86\) - CSC3150 VM Setup Workflow \(cyzhu.dev\)](https://cyzhu.dev/Windows-(AMD/Intel-x86)-CSC3150-VM-Setup-Workflow) is enough.

CSC3150 Virtual Machine Setup (xv6)

To setup the VM, refer to the attached file "CSC3150_xv6_Setup.pdf" in the workspace folder.

After running the VM successfully, remember to log in and do "dhclient" (which is important !!!). Then we can set the VSCode for this VM.

Do the network settings and modify the rule of port forwarding as follows.



Then we add the code below to the config file.

```
Host xv6_Ubt2004_CSC3150
  HostName 127.0.0.1
  Port 2222
  User csc3150
```

Then we run the virtual machine in the VSCode. After inputting the password, we can access to it.

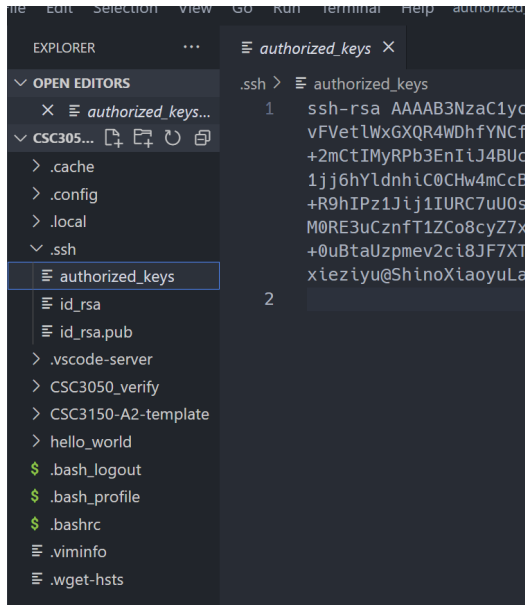
Avoid inputting password

To avoid inputting the password, just refer to the post: [VScode SSH远程虚拟机中ubuntu系统开发以及解决SSH需要频繁输入密码问题_虚拟机输入密码一直反复输入_Fighting_1997的博客-CSDN博客](#)

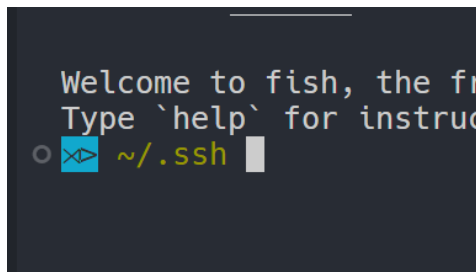
After generating the keys, DO NOT modify it ! And do not use some strange software to open it ! You can drag the file to the VSCode directly and copy and paste. It will be better if you also keep a backup for them.

CSC3050 ArchLinux

In the CSC3050 Virtual Machine ArchLinux, the keys should be put here:

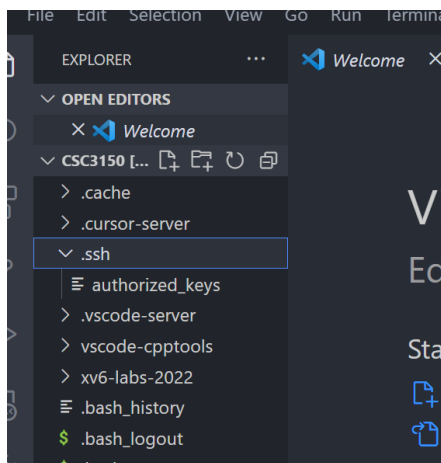


You can check the terminal:

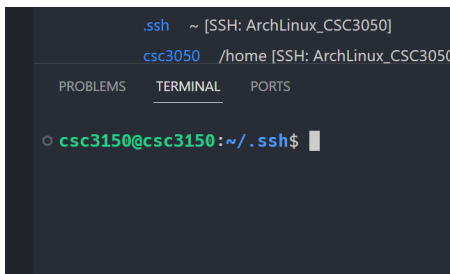


CSC3150 Ubuntu with xv6

In the CSC3150 Virtual Machine with xv6, the keys should be put here:



You can check the terminal:



For this VM, you must do port forwarding, log in the VM and input "dhclient". Otherwise it cannot be accessed by VSCode.

Here is a figure showing all my config settings:

```
C: > Users > xieziyu > .ssh > config
1  Host ArchLinux_CSC3050
2      HostName 127.0.0.1
3      Port 5678
4      User csc3050
5      IdentityFile "C:\Users\xieziyu\.ssh\id_rsa"
6
7  Host xv6_Ubt2004_CSC3150
8      HostName 127.0.0.1
9      Port 2222
10     User csc3150
11     IdentityFile "C:\Users\xieziyu\.ssh\id_rsa"
12
13 Host Ubt1604_CSC3150
14     HostName 127.0.0.1
15     User vagrant
16     Port 2222
17     UserKnownHostsFile /dev/null
18     StrictHostKeyChecking no
19     PasswordAuthentication no
20     IdentityFile C:/Users/xieziyu/.vagrant.d/boxes/cyzhu-VAGRANTSLASH-csc3150/0.2.0/virtualbox/
    vagrant_private_key
21     IdentitiesOnly yes
22     LogLevel FATAL
23     PubkeyAcceptedKeyTypes +ssh-rsa
24     HostKeyAlgorithms +ssh-rsa
25
26
```

For more information, you can contact via email shinoxiaoyu@outlook.com