

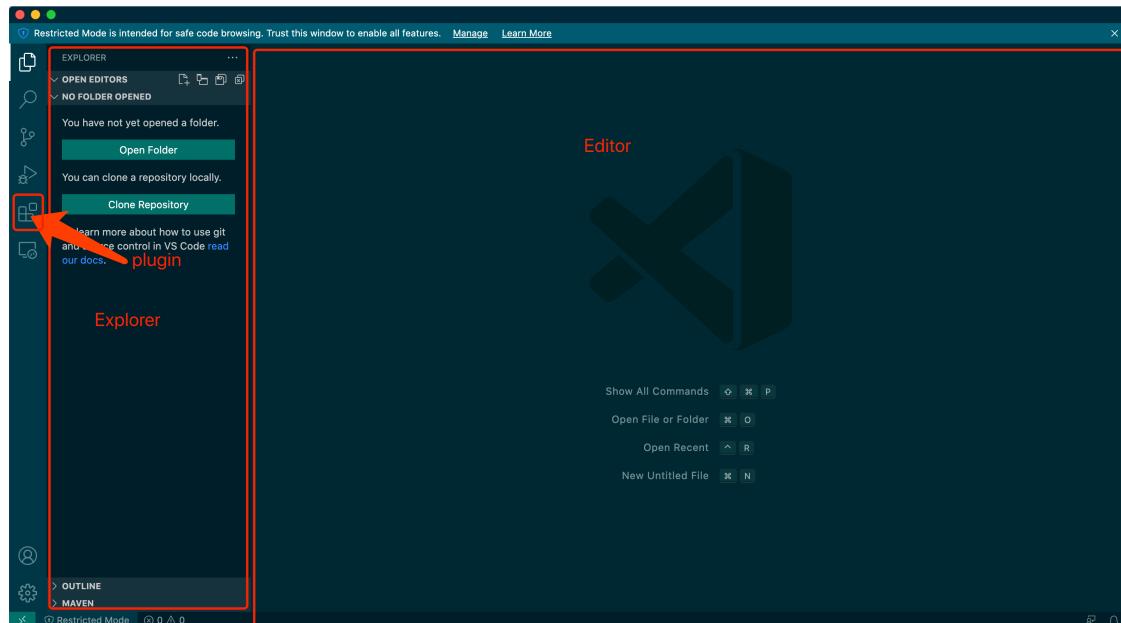
Using Remote Development in VScode with Java

Tianshu Yu

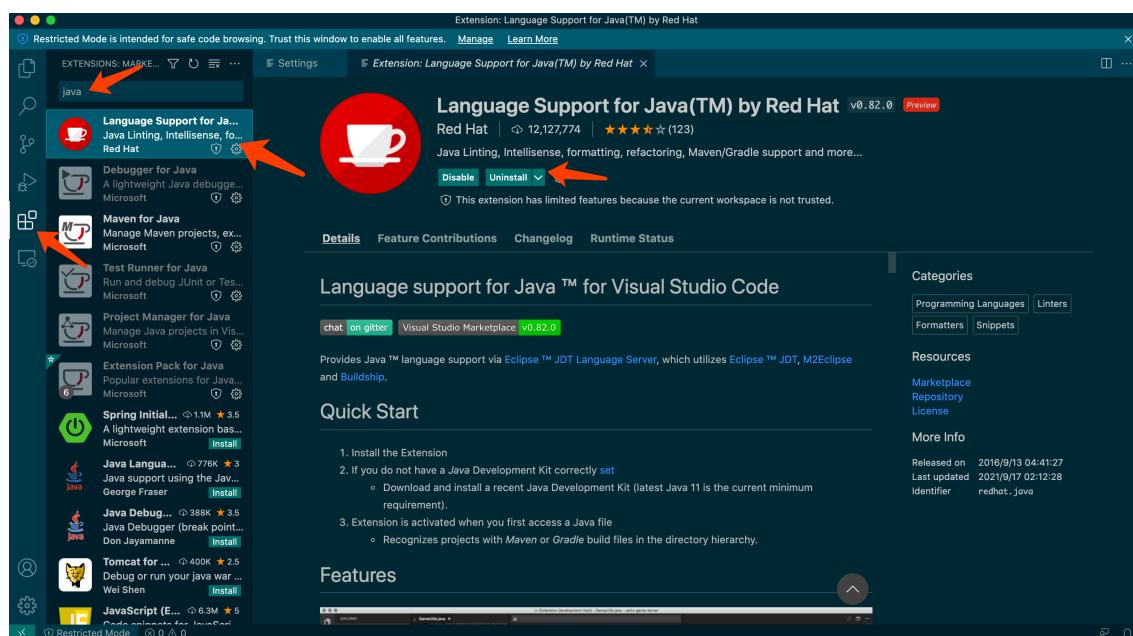
This document shows you how to use remote development feature in VScode to efficiently write Java code on a server with ssh tunnel.

It is assumed that you have already installed VScode on your personal computer. VScode supports multiple operating systems including Windows, Mac and Linux.

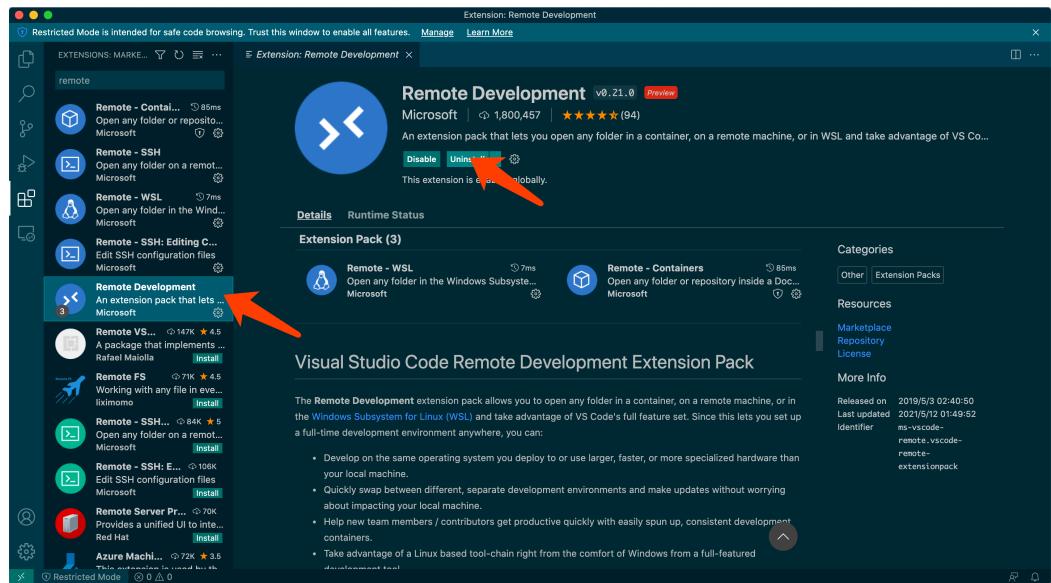
- Once your VScode is correctly installed, you can click "plugin" icon:



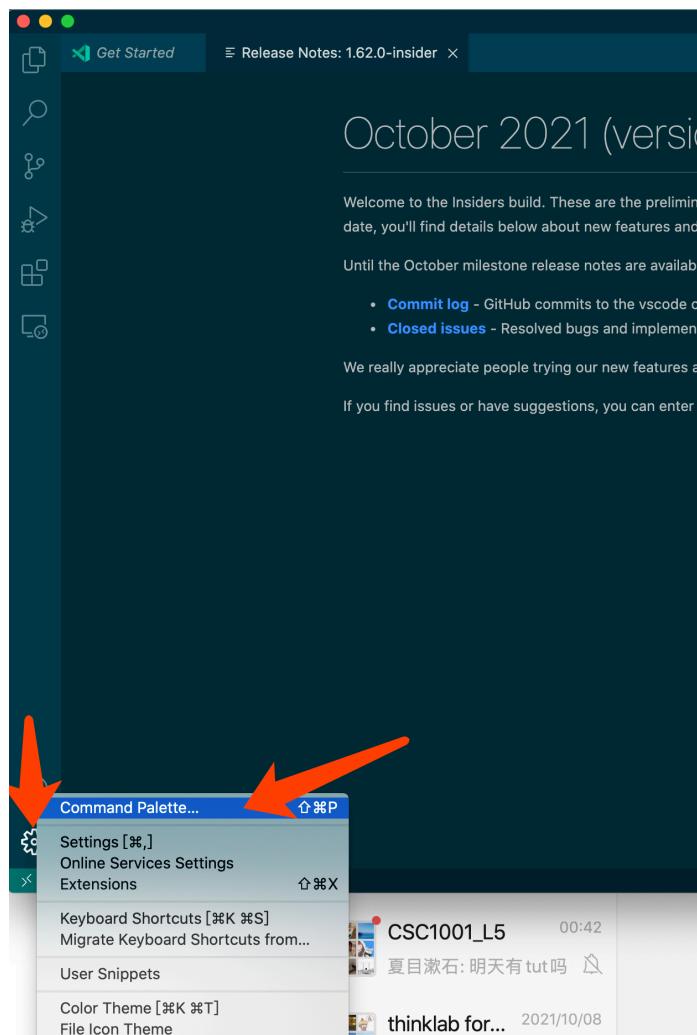
- Type "Java" and search. Then install the "Language Support for Java(TM) by ..." extension.



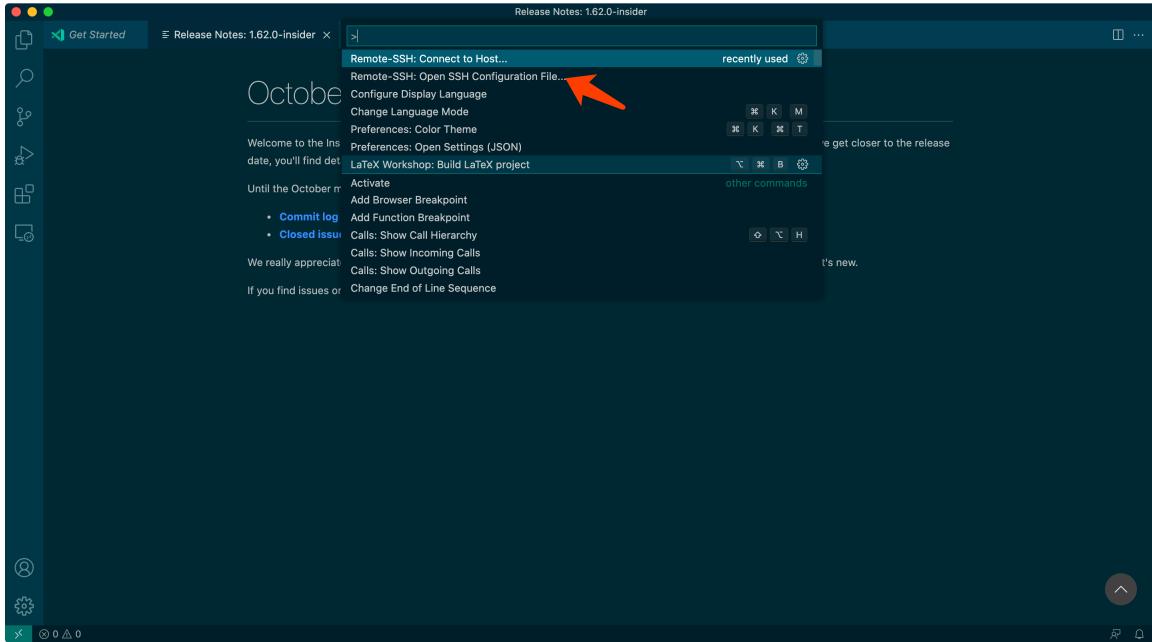
3. You also need to install "Remote Development" kit.



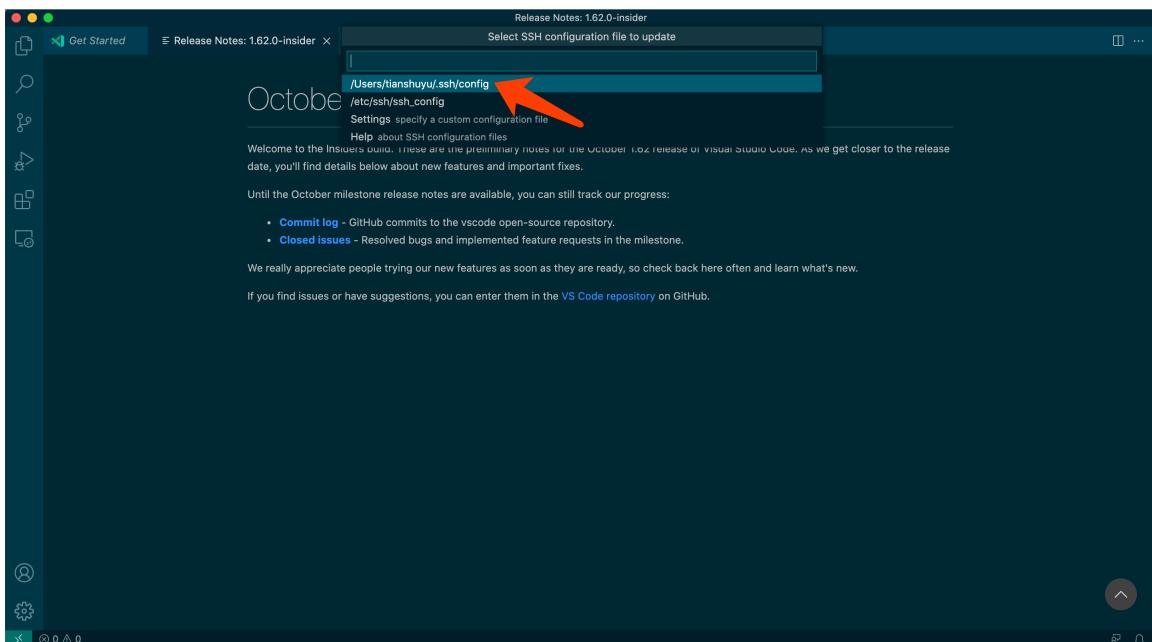
4. After installing everything, you can revoke command palette like this:



- Since you will be constantly accessing the server, it's recommended to write account information into configuration file. To do so, select "Remote-SSH: open SSH Config...":

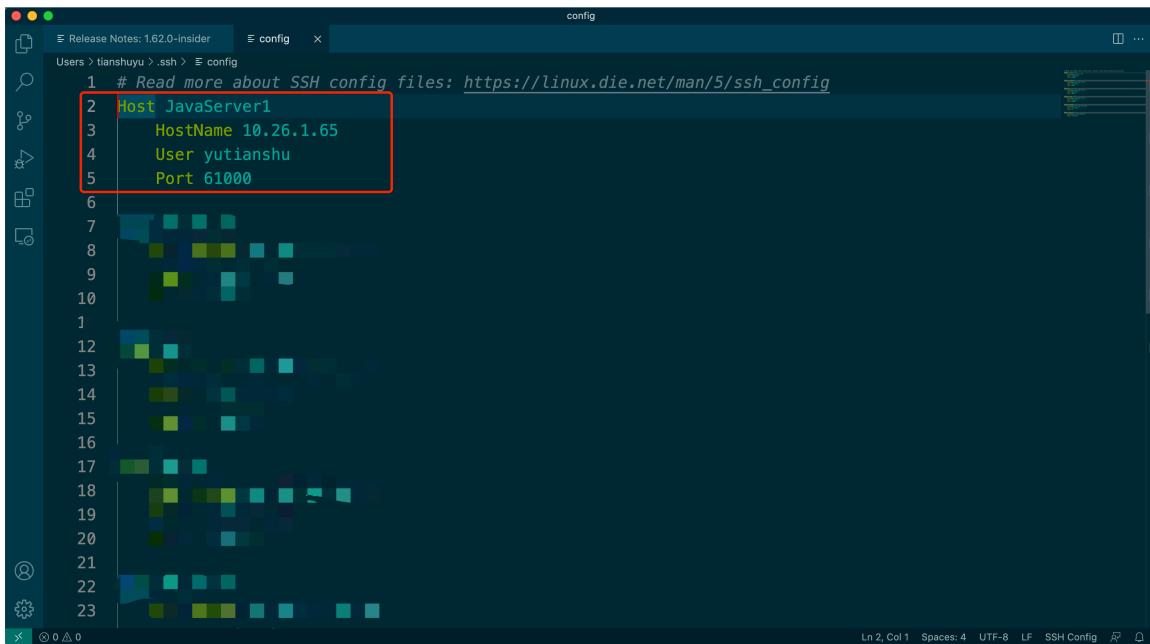


- Then select a file to modify. The file "/User/tianshuyu/.ssh/config" is the corresponding file in Mac under my username. You may file a different one on your systems (e.g., your username in Windows, Mac, Linux)



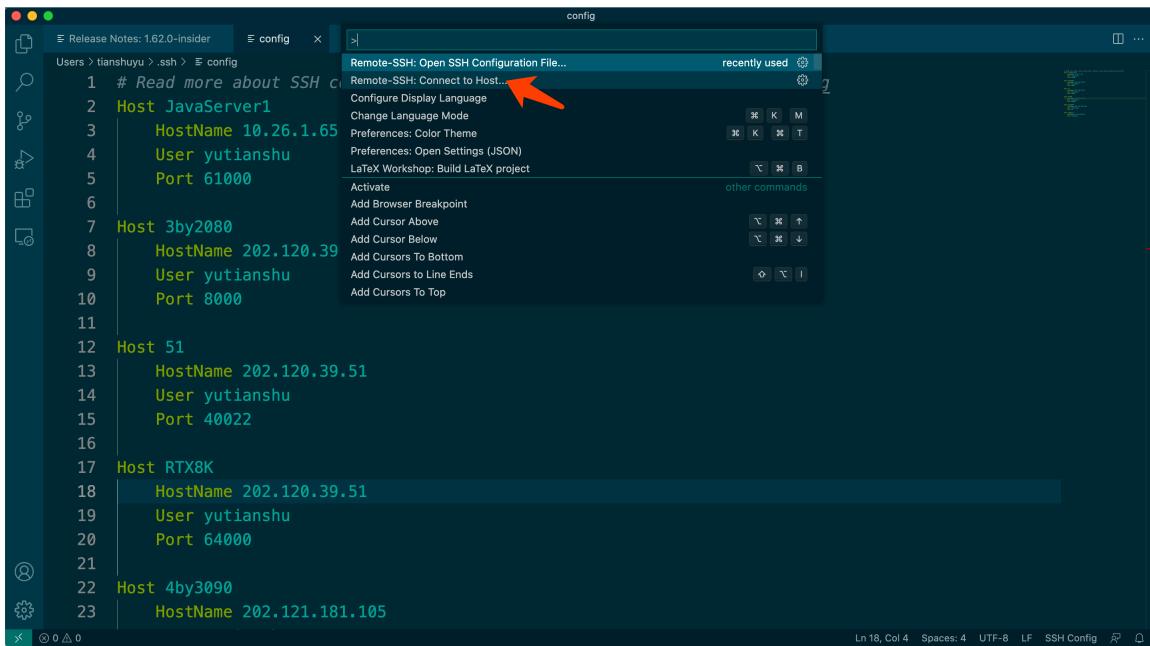
- Then you can input the ssh information. The following is an example (see the red rectangle). You can give a name to the server after **Host**. **Hostname** corresponds to the IP address of the server, while **User** and **Port** refer to the username and port respectively. You can put the content (as in the red rectangle) anywhere in this ssh configuration file. After editing,

remember to save it.



```
# Read more about SSH config files: https://linux.die.net/man/5/ssh_config
Host JavaServer1
  HostName 10.26.1.65
  User yutianshu
  Port 61000
```

- Once finished, you can revoke the command palette again and choose to "Connect to Host" now.

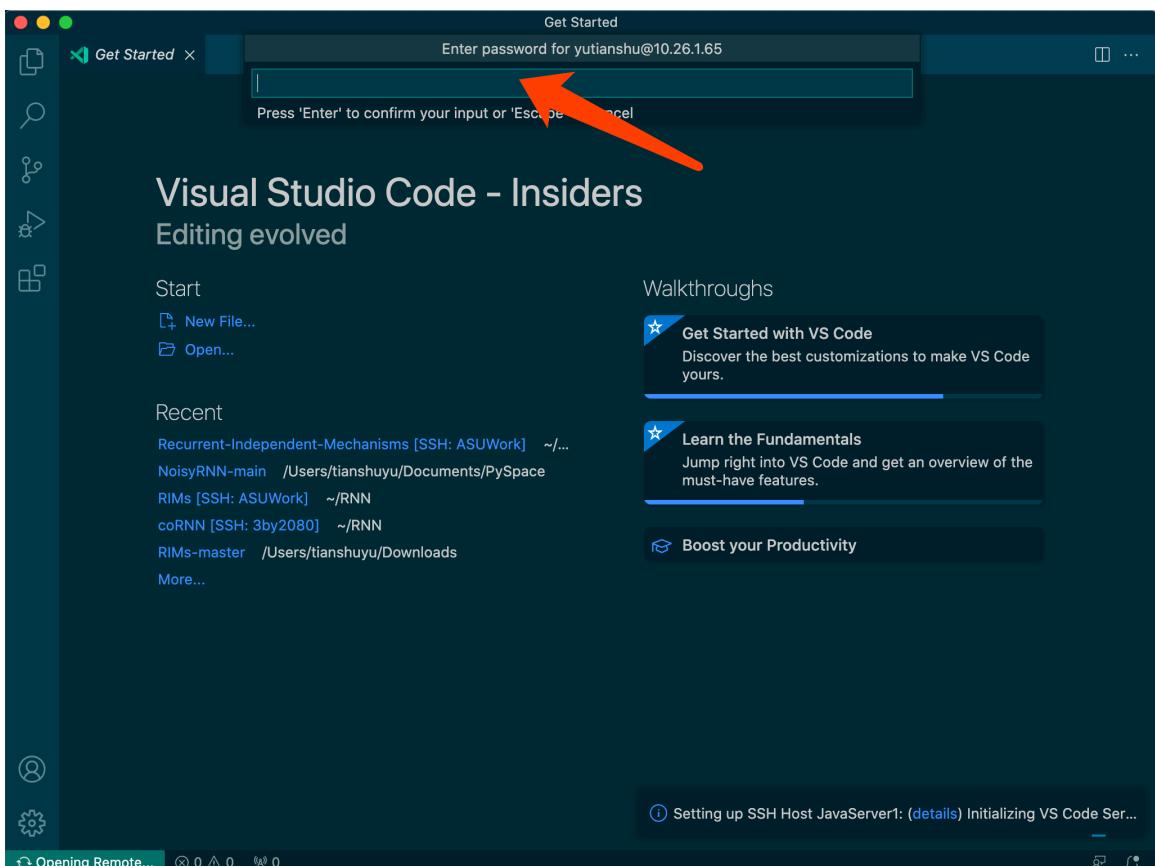


```
# Read more about SSH config files: https://linux.die.net/man/5/ssh_config
Host JavaServer1
  HostName 10.26.1.65
  User yutianshu
  Port 61000
Host 3by2080
  HostName 202.120.39.51
  User yutianshu
  Port 8000
Host 51
  HostName 202.120.39.51
  User yutianshu
  Port 40022
Host RTX8K
  HostName 202.120.39.51
  User yutianshu
  Port 64000
Host 4by3090
  HostName 202.121.181.105
```

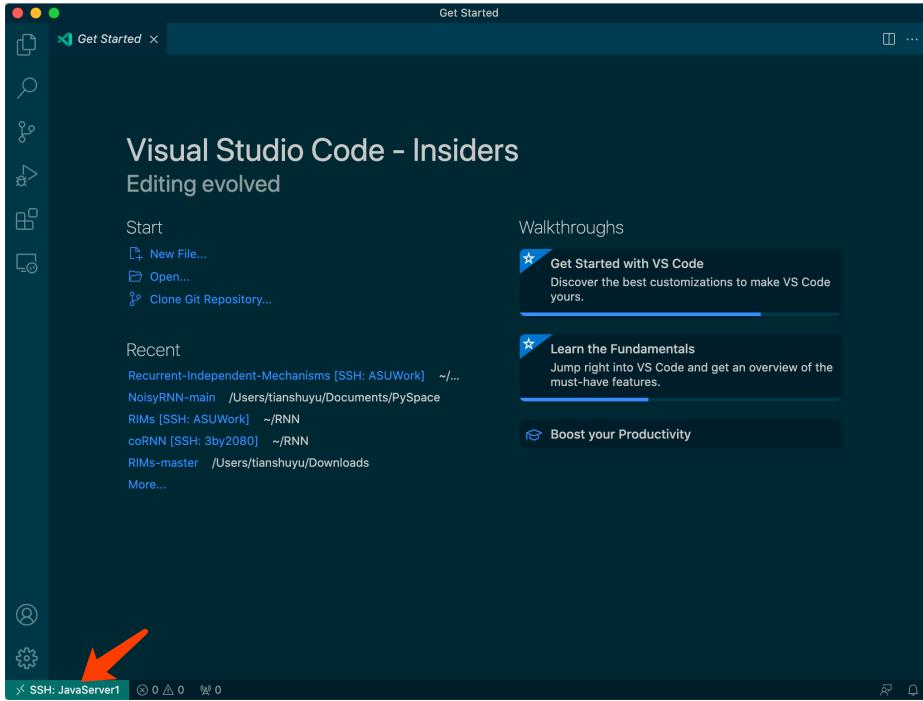
- Select the name of the assignment server:

```
1 # Read more about SSH config
2 Host JavaServer1
3   HostName 10.26.1.65
4   User yutianshu
5   Port 61000
6
7 Host 3by2080
8   HostName 202.120.39.52
9   User yutianshu
10  Port 8000
11
12 Host 51
13   HostName 202.120.39.51
14   User yutianshu
15   Port 40022
16
17 Host RTX8K
18   HostName 202.120.39.51
19   User yutianshu
20   Port 64000
21
22 Host 4by3090
23   HostName 202.121.181.105
```

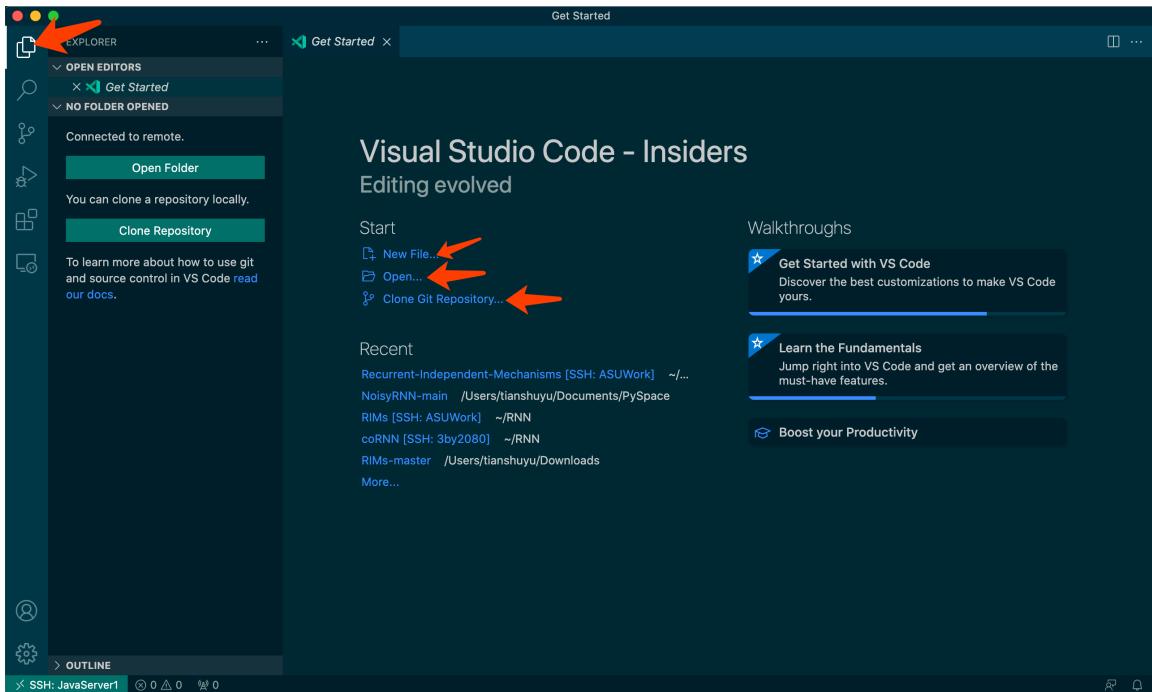
10. A new VScode window will bump up and ask for the password. Input it:



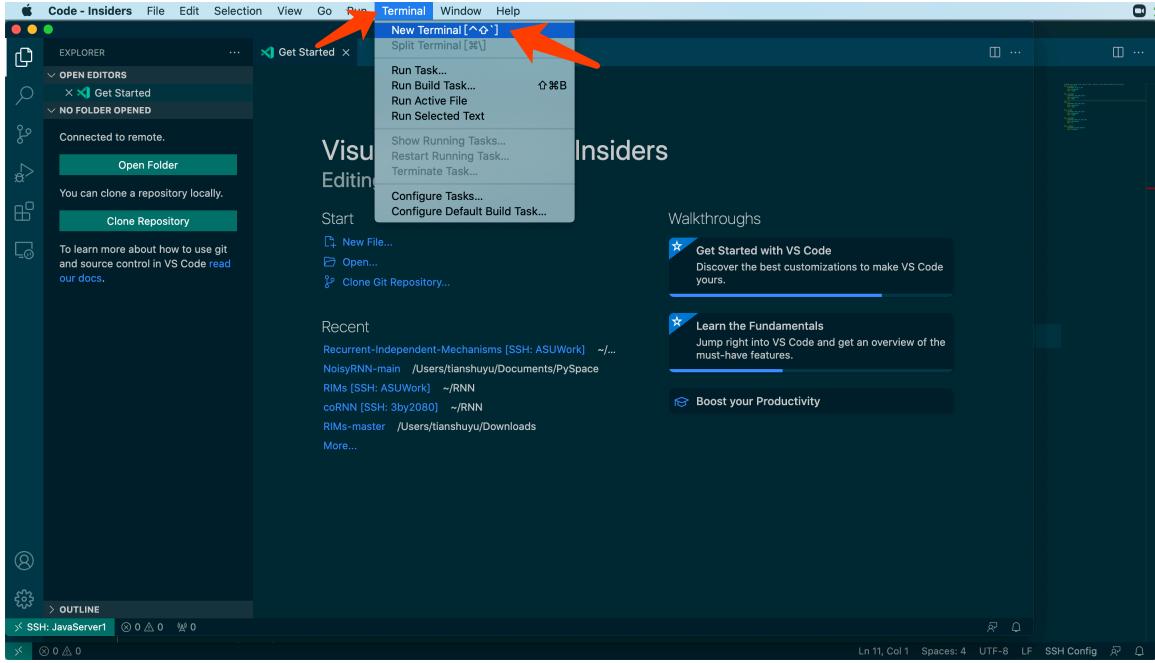
11. After a while of waiting, you should have connected to the server via ssh. Note the red arrow pointing to the current status. "SSH: JavaServer1" means that the current VScode window is connecting to the server JavaServer1 via ssh.



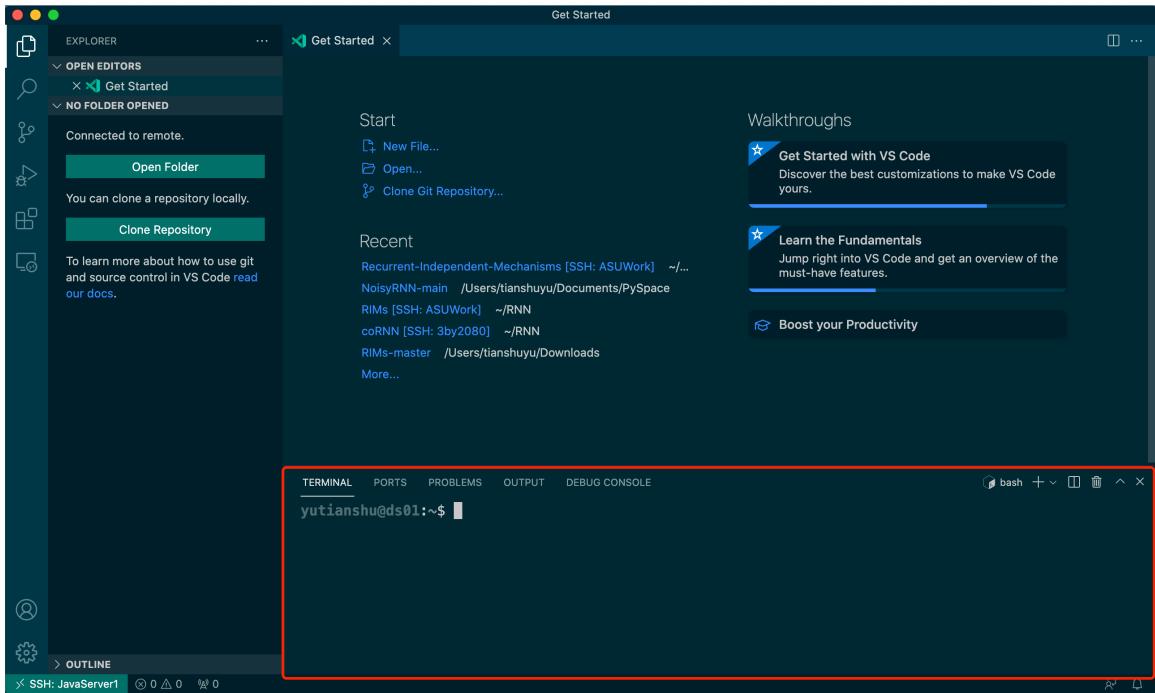
12. Then you can open file, direct to a folder or start to write code.



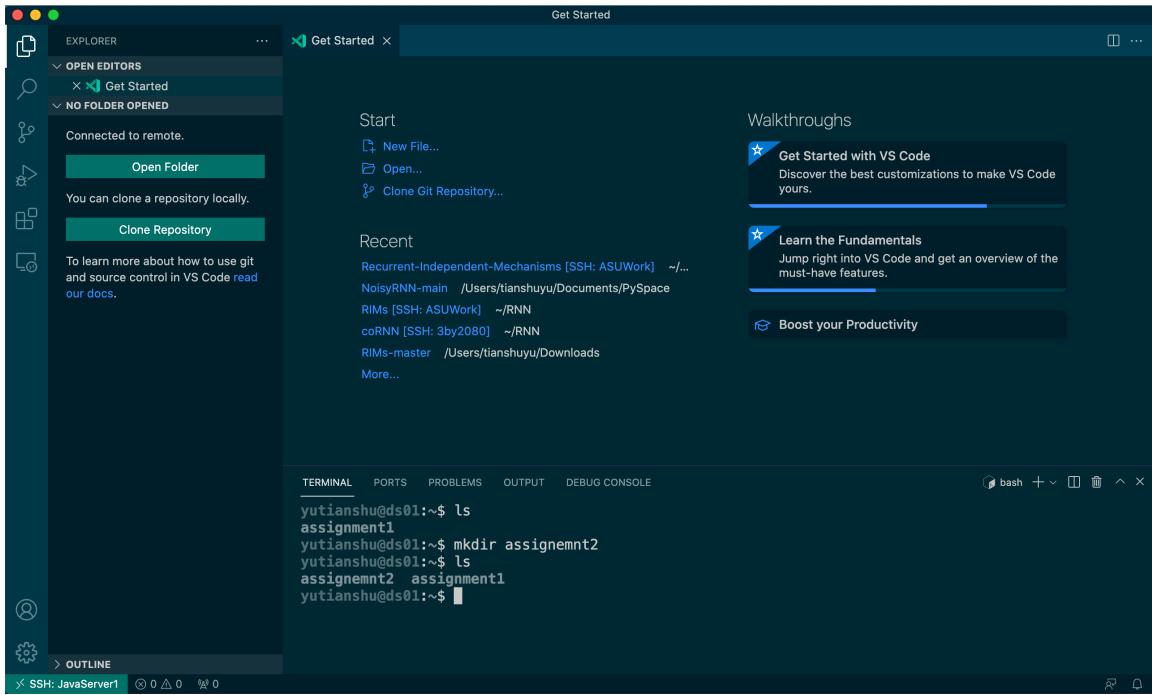
13. To make a new folder, you should first start a terminal like this:



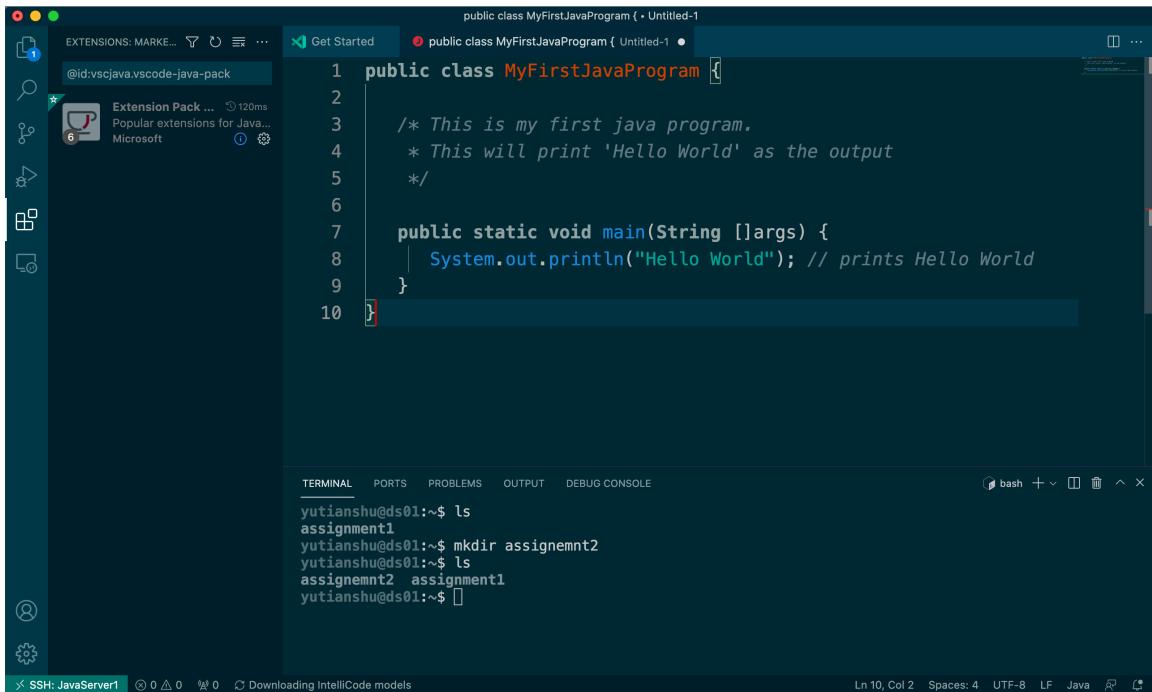
14. Then a terminal will show up down in the red rectangle.



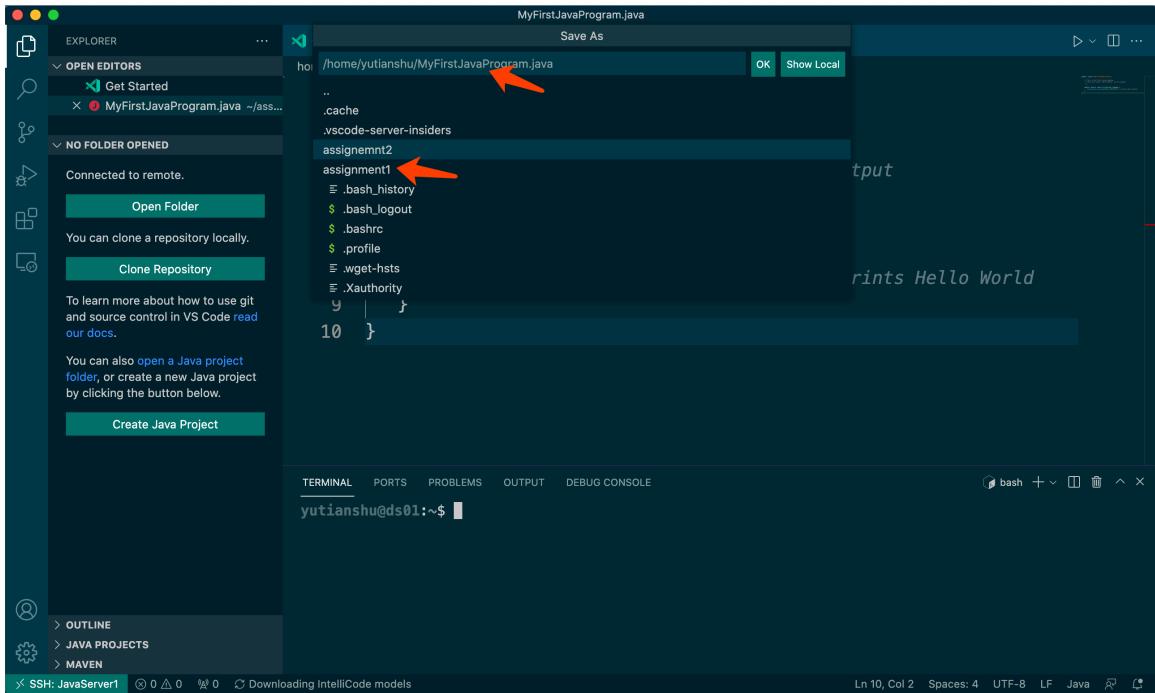
15. You can type command in the terminal. But every command is being executed on the server, not your computer.



16. Let's open a new file and start to write our first code.



17. When you want to save it, a new menu will bump up ask for the filename and directory. Suppose I want to name this file "MyFirstProgram.java" and save it in "assignment1" folder.



- Then you can use the terminal to go into the directory "assignment1" and compile it. Then you should be able to run it.

