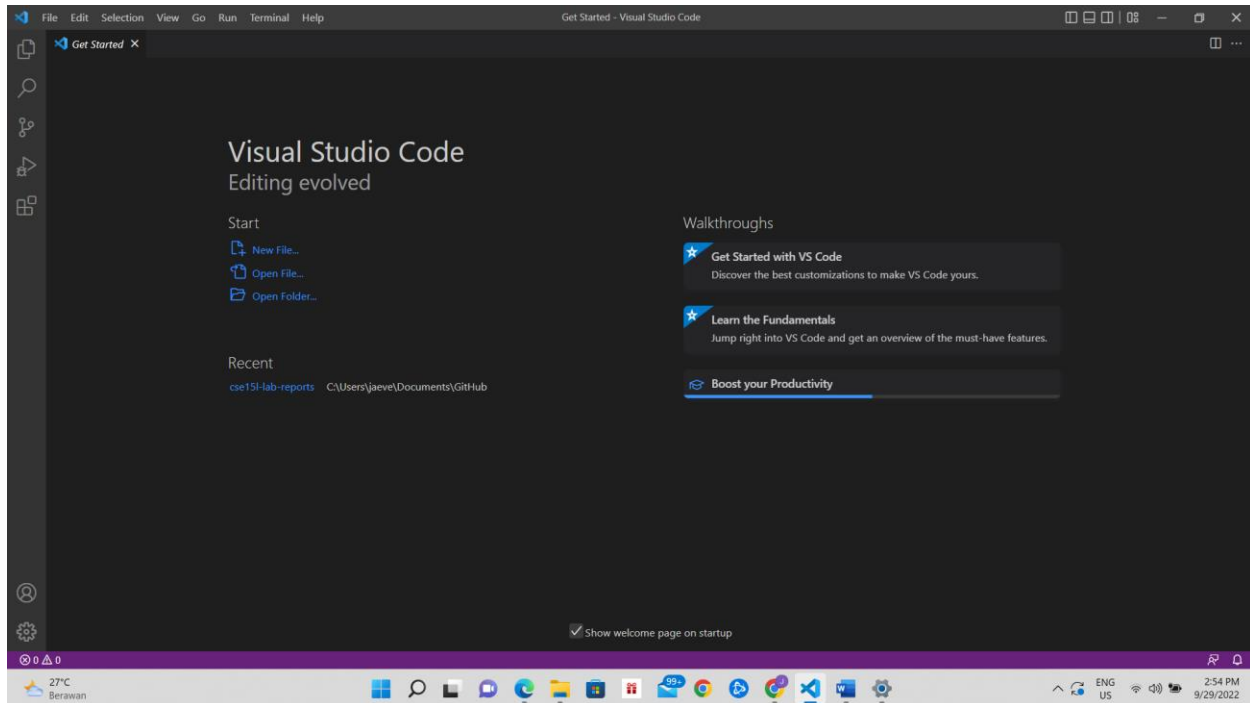


I first installed visual studio code which was simply done by doing a quick google search. Then, I had to make sure that OpenSSH client was in my computer. I checked it in the options tab of my settings in optional features. After downloading visual studio code, my screen looked like this:



Then I remotely connected into the server by running the line `ssh cse15lfa22ft@ieng6.ucsd.edu` (my login for this account was not working yet so I used `jtanuwidjaja@ieng6.ucsd.edu`) in my terminal. The terminal then shows the following lines in my screen:

```
You are using 0% CPU on this system
```

Cluster Status

Hostname	Time	#Users	Load	Averages
ieng6-201	14:55:02	15	0.27,	0.11, 0.06
ieng6-202	14:55:01	8	0.17,	0.16, 0.11
ieng6-203	14:55:01	18	0.08,	0.07, 0.05

```
To see all available software packages, type "prep -l" at the command prompt,  
or "prep -h" for more options.
```

After I tried the command "ls -lat" the following lines appeared:

```
-rw-r----- 1 jtanuwidjaja ieng6_staff 30 Sep 29 15:01 hello.txt
lrwxr-s--- 6 jtanuwidjaja ieng6_staff 4096 Sep 29 15:01 .
-rw-r--r-- 1 jtanuwidjaja ieng6_staff 1111 Sep 29 14:59 .modulesbegenv
-rw-r----- 1 jtanuwidjaja ieng6_staff 0 Sep 29 14:20 .motd
lrwxr-sr-x 2 jtanuwidjaja ieng6_staff 4096 Sep 29 14:20 perl5
lrwxr-sr-x 3 jtanuwidjaja ieng6_staff 4096 Sep 29 14:20 .local
lrwxr-sr-x 3 jtanuwidjaja ieng6_staff 4096 Sep 29 14:20 .config
lrwxr-sr-x 3 jtanuwidjaja ieng6_staff 4096 Sep 29 14:20 .cache
lrwxr-sr-x 166 root ieng6_staff 16384 May 31 14:38 ..
-rwxr-x--- 1 jtanuwidjaja ieng6_staff 290 May 31 14:38 .zshrc
-rwxr-x--- 1 jtanuwidjaja ieng6_staff 481 May 31 14:38 .zshenv
-rwxr-x--- 1 jtanuwidjaja ieng6_staff 1931 May 31 14:38 .zprofile
-rwxr-x--- 1 jtanuwidjaja ieng6_staff 1961 May 31 14:38 .profile
```

After I tried the command "cat /home/linux/ieng6/cs15lfa22/public/hello.txt" the following lines appeared:

```
[jtanuwidjaja@ieng6-201]:~:7$ cat /home/linux/ieng6/cs15lfa22/public/hello.txt
Hi! Welcome to CSE15L Fall 22
```

I then logged out of the remote server in my terminal by running the exit command. And made a file WhereAml.java with its contents based on what is given in the lab assignment. Running scp WhereAml.java jtanuwidjaja@ieng6.ucsd.edu:~/, my terminal displays the following results:

```
PS C:\Users\jaeve> cd Desktop
PS C:\Users\jaeve\Desktop> scp WhereAmI.java jtanuwidjaja@ieng6.ucsd.edu:~/
Password:
WhereAmI.java
PS C:\Users\jaeve\Desktop>
```

After logging in to ssh with ls, the file is now in my home directory:

```
To see all available software pack
or "prep -h" for more options.
[jtanuwidjaja@ieng6-201]:~:13$ ls
WhereAmI.java hello.txt perl5
[jtanuwidjaja@ieng6-201]:~:14$
```

After running "java WhereAml":

```
jtanuwidjaja
/home/linux/ieng6/oce/07/jtanuwidjaja
/home/linux/ieng6/oce/07/jtanuwidjaja
[jtanuwidjaja@ieng6-201]:~:16$
```

After running the commands instructed in step 7 of the lab, I was able to login without using a password:

```
PS C:\Users\jaeve> ssh jtanuwidjaja@ieng6.ucsd.edu
Password:
Last login: Thu Sep 29 16:19:24 2022 from 098-148-246-022.res.spectrum.com
Hello jtanuwidjaja, you are currently logged into ieng6-201.ucsd.edu

You are using 0% CPU on this system

cluster status
```

As for optimizing remote running, I think that having a text file of the command to log in to your ssh is a good idea for reducing the keystrokes that will be used to log on. For example I can copy all the required lines of code that I would use to login and simply copy and paste it into the next time I login into the terminal saving all the time typing it manually every single time.