VS Code Remote Development using SSH

Note: This feature is for students using VS Code in their local machine only. If you are using the systems-lab web interface or the lab machine, you don't have to follow the following process.

Visual Studio Code Remote Development Extension Pack allows you to open any folder in a container, and take advantage of VS Code's full feature set.

Requirement:
A supported OpenSSH compatible SSH client must be installed.
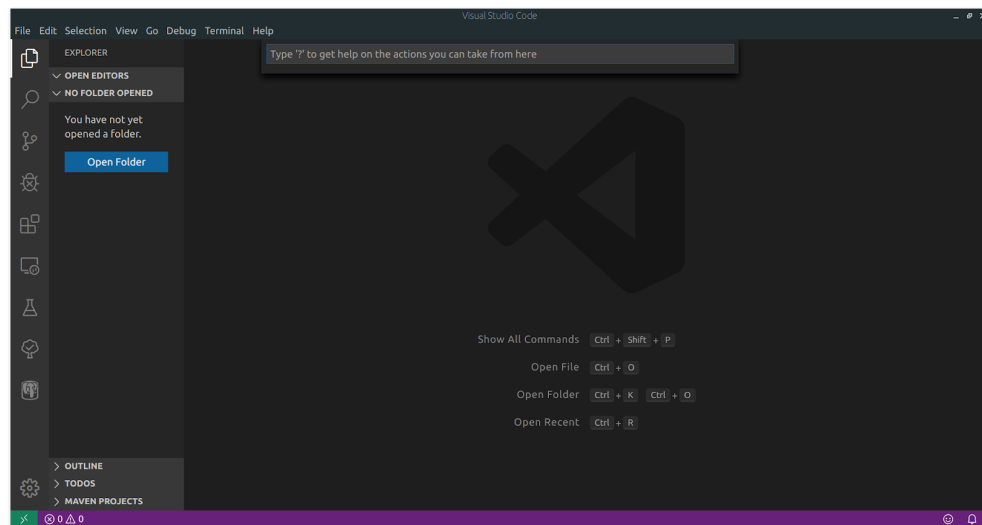VS Code must be installed.
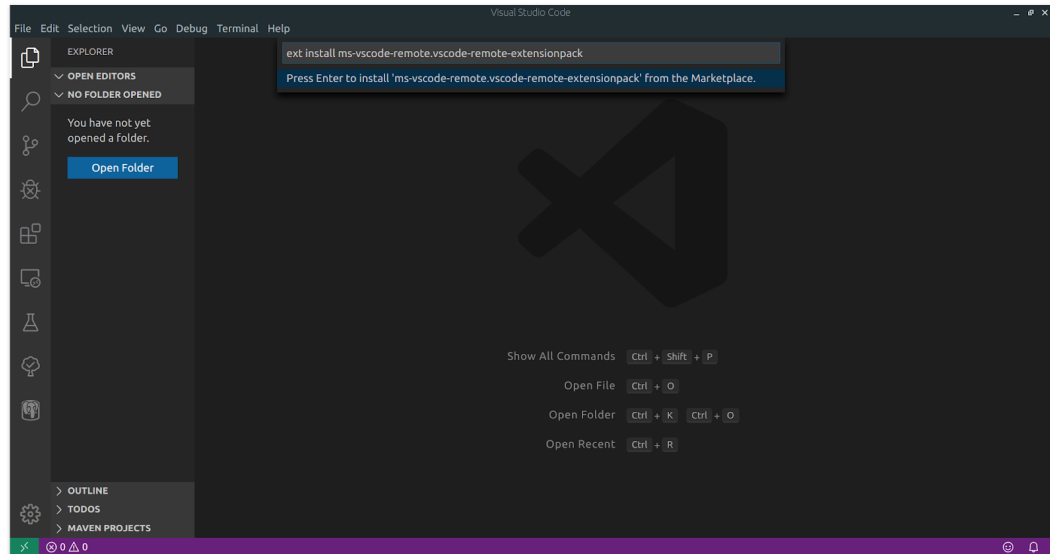
Windows: Git bash
 MacOS: Comes pre installed
Debian/Ubuntu: run "sudo apt-get install openssh-client"
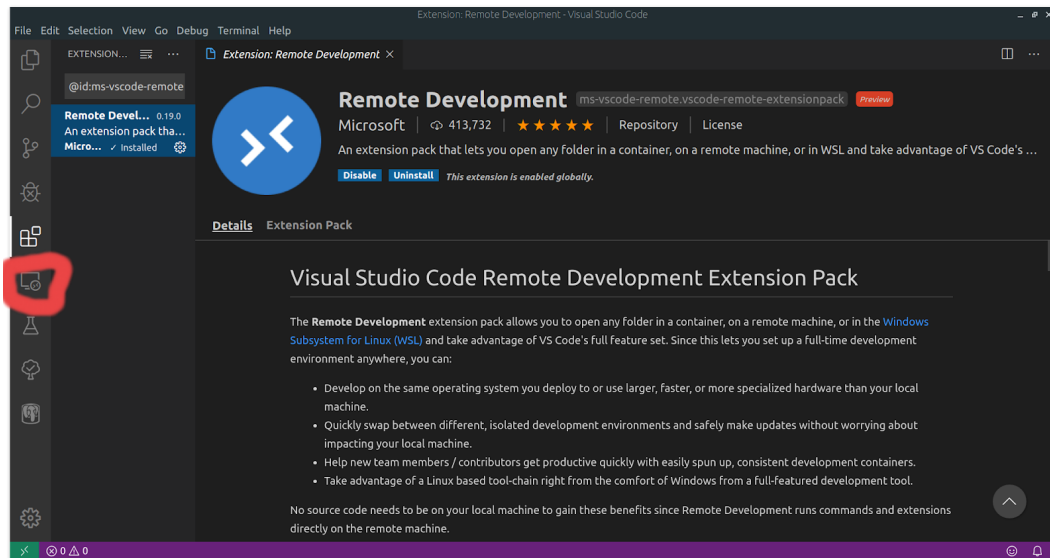
Installation:
1. Install the Remote Development Extension Pack;
    a. Copy the following command.
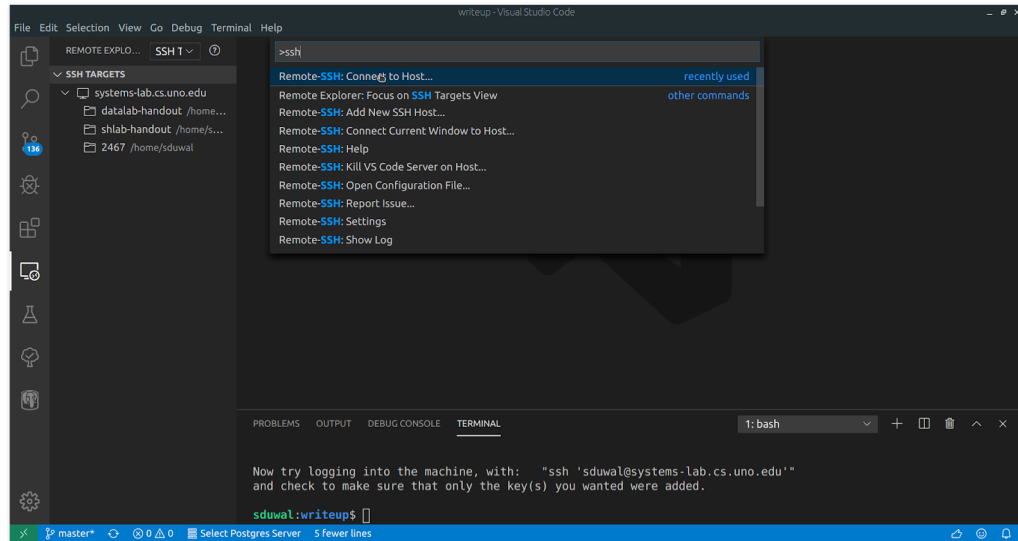   ext install ms-vscode-remote.vscode-remote-extensionpack
    b. Open VS Code.

    c. Launch VS Code Quick Open (Ctrl + P or ⌘P).
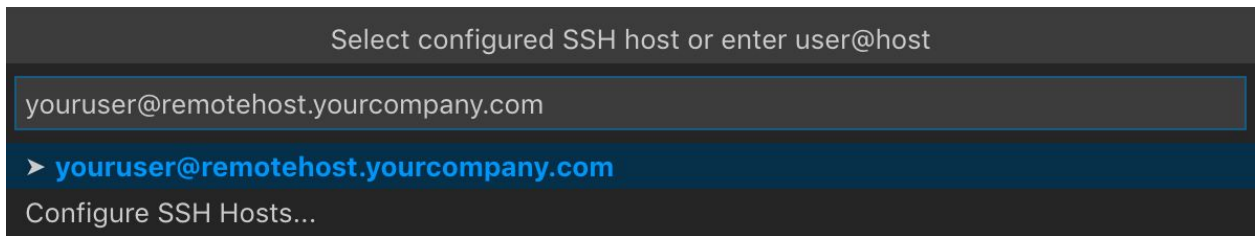
    d. Paste the command from step 1.a.

e. Hit Enter And Wait for it to install.

f. Once the installation is complete, you will see a new icon on the side bar.

2. To create Connection
   a. Open the command palette (ctrl+shift+p or F1 button).
   b. Select Remote-SSH:Connect to Host

c. Enter the host and your user in the input box.

You should replace the command with "uno_username@systems-lab.cs.uno.edu"

d. The command will may open a new window and ask for password.
e. After a moment, VS code will connect to the server and set itself up.
f. After connected, you'll be given an empty window. You can open a file or a workspace on the remote machine using **File > Open.. or File>Open Workspace.**
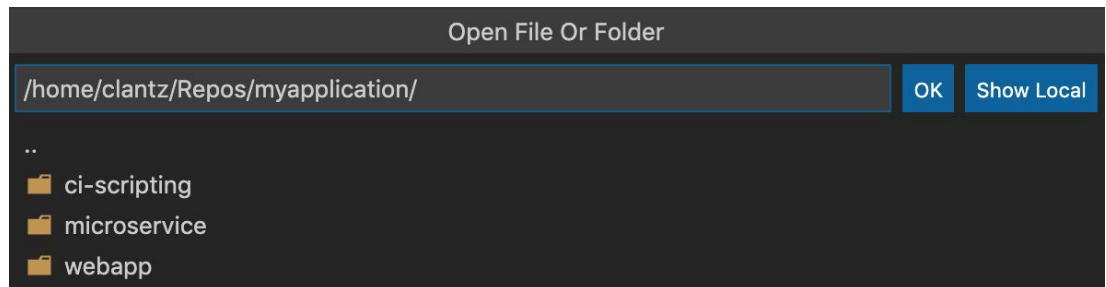
g. The status bar will show you your connection status.
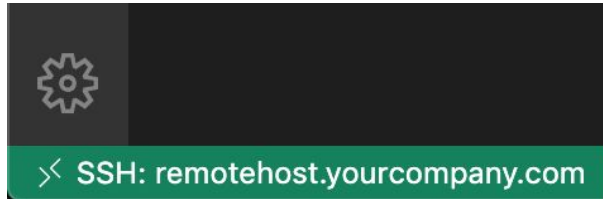
Optional

Although the above approach works, you might want to consider a key-based approach so that you don't have to enter you password every time you connect.

1. Generate a ssh-key.
    a. Git bash: ssh-keygen
    b. Linux/Mac: ssh-keygen -t rsa -b 4096 -f ~/.ssh/id_rsa

2. Follow the instructions on the terminal. You hit enter to select the default values.
3. Run the following command in local terminal and follow the instructions.

   ssh-copy-id -i ~/.ssh/id_rsa-remote-ssh.pub

   uno_username@systems-lab.cs.uno.edu

4. When you connect to the ssh-host for the first time (STEP 2c), use the following command instead.

   ssh -i ~/.ssh/id_rsa-remote-ssh uno_username@systems-lab.cs.uno.edu