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.

File E	dit Selection View Go Deb	Visual Studio Code bug Terminal Help	
Ω,			
	$\checkmark$ OPEN EDITORS		
Q	$\checkmark$ NO FOLDER OPENED		
ို	You have not yet opened a folder.		
⊗	Open Folder		
₿			
Ē			
A			
$\odot$			
- 2			
<b>(</b>			
	> OUTLINE		
563	> TODOS		
4.5	> MAVEN PROJECTS		
× -	⊗0∆0		Θ Δ

- c. Launch VS Code Quick Open (Ctrl + P or  $\mathbb{H}P$ ).
- d. Paste the command from step 1.a.

File Fi	Ella Pill's Salention View Co. Dehun Terminal Helo.				
L L L L L L L L L L L L L L L L L L L		ext install ms-vscode-remote.vscode-remote-extensionpack			
	$\vee$ open editors	Press Enter to install 'ms-vscode-remote.vscode-remote-extensionpack' from the Marketplace.			
	V NO FOLDER OPENED				
وړ	You have not yet opened a folder.				
	Open Folder				
逐					
₽₽ ₽₽					
L_⊘					
因					
'i'					
œ					
503	> TODOS				
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	> MAVEN PROJECTS				
	0.11.				

- 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

File Fr	lit Selection View Go Debug Terminal	writeup - Visual Studio C	ode			- @ X
ß	REMOTE EXPLO SSH T V					
	$\vee$ SSH TARGETS	Remote-SSH: Connet to Host				
R	<ul> <li></li></ul>	Remote Explorer: Focus on SSH Targets View				
0	Shlab-handout /home/s	Remote-SSH: Connect Current Window to Host				
136	🔁 2467 /home/sduwal	Remote-SSH: Help				
Å		Remote-SSH: Kill VS Code Server on Host				
1925		Remote-SSH: Open Conriguration File Remote-SSH: Report Issue				
00		Remote-SSH: Settings				
		Remote-SSH: Show Log				
G						
A						
~						
4						
(in)						
		PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL		hash 🗸	â ^	×
		Now try logging into the machine, with: "se	sh 'sduwal@systems-lab.cs.unc	.edu'"		
572		and check to make sure that only the key(s) y	vou wanted were added.			
503		sduwal:writeup\$ []				
× 1	🕫 master* 🕂 🛞 0 🛆 0 🗮 Select Post	gres Server 5 fewer lines			6	) D

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

Select configured SSH host or enter user@host		
youruser@remotehost.yourcompany.com		
➤ youruser@remotehost.yourcompany.com		
Configure SSH Hosts		

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