How to connect Visual Study Code to Github

Note: To follow these instructions, you will need to have already installed Visual Studio Code and created a GitHub account.

This guide is to instruct a user how to successfully connect a Github account to a local Visual Studio Code application. This is important knowledge because all throughout a programming career, a user will have to have a local to cloud connection like shown in this document. This guide is geared towards slightly advanced users but can be followed someone with little to no technology experience if followed closely.

Definitions

Github - a common platform used by developers / programmers to publish, update, and store code.
VSCode (Visual Studio Code) - A source-code editor used by programmers and developers to create, write, debug, and develop code.
Git - Used in the terminal to run commands for GitHub.

Materials:

- A computer with updated version of VSCode.
- Github account
- Connection to internet
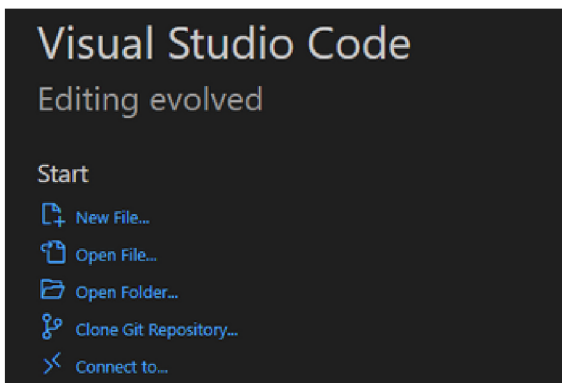- Ample amount of storage for downloads (Windows Users).

Note: **Windows** users will need to additionally install Git to follow along. Please navigate to Git Download if you are a **Windows** user needing to install Git. **Mac** users need to install homebrew and git. Please navigate to Git/Homebrew for MacOS if you are a **Mac** user.

Windows Users	Mac Users

(1) Create an empty folder somewhere on your computer. I recommend doing this on desktop. Right click your desktop wallpaper, hover over New with the mouse, then click folder.
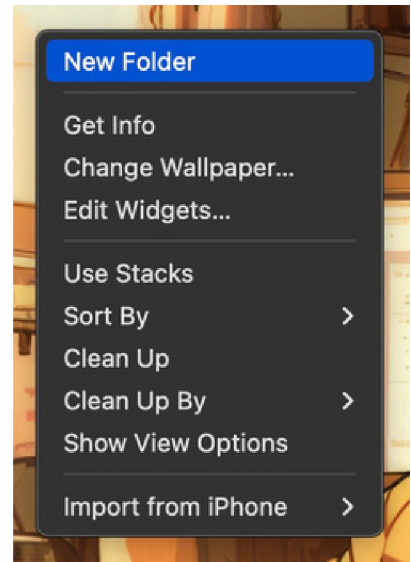
(1) Create an empty folder somewhere on your computer. I recommend doing this on desktop. Right click your desktop wallpaper then click "New Folder".
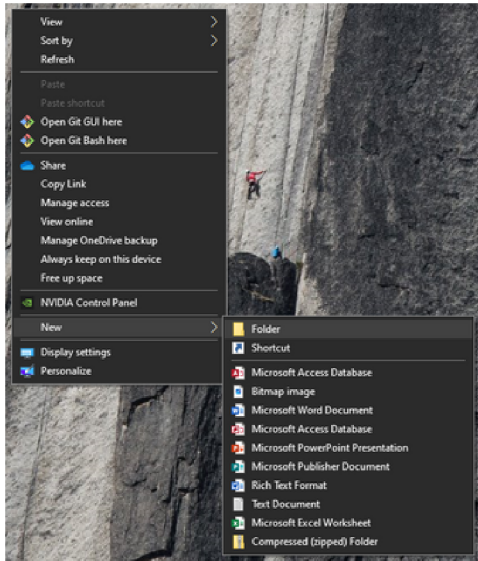
(2) Open VSCode and on the start-up screen select "Open Folder". In the pop-up window, navigate to the folder you created in step 1, left click the folder **once** and then click "open folder" at the bottom right of the pop-up window.
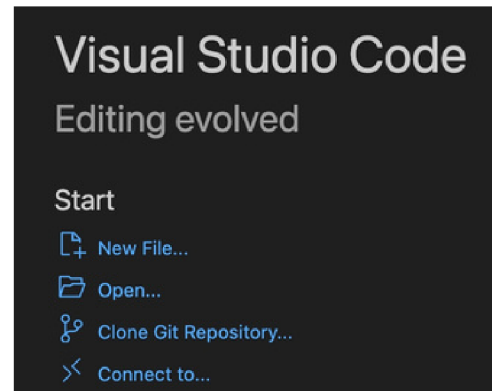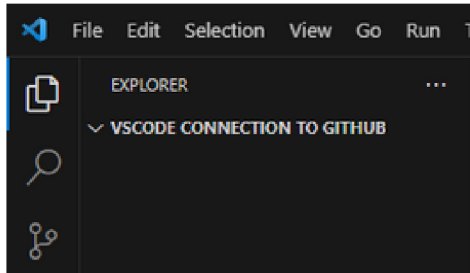
(2) Open VSCode and on the start-up screen select "Open". In the pop-up window, navigate to the folder you created in step 1, left click the folder **once** and then click "open" at the bottom right of the pop-up window.


Visual Studio Code
Editing evolved

Start

New File...
Open File...
Open Folder...
Clone Git Repository...
Connect to...

Visual Studio Code
Editing evolved

Start

New File...
Open...
Clone Git Repository...
Connect to...

Windows Users	Mac Users

Your folder should now in the explorer tab on the left side of your screen (see example below)

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(3) Right-click in the empty space below your folder name and then click "Open in integrated terminal". This will open a terminal at the bottom of the VSCode application.
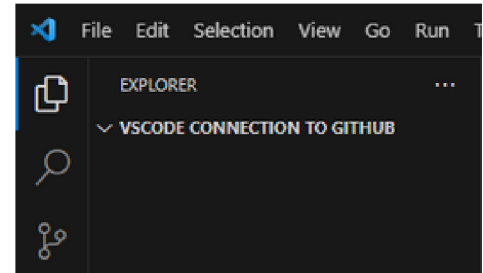

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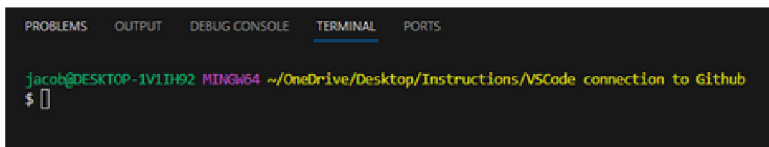
(4) Type the command git -v in the terminal to ensure you have git installed on your machine. If Git isn't installed, please do so now before you continue (Link is above step 1 in the warning label)
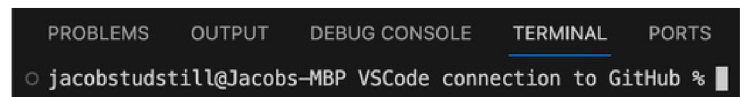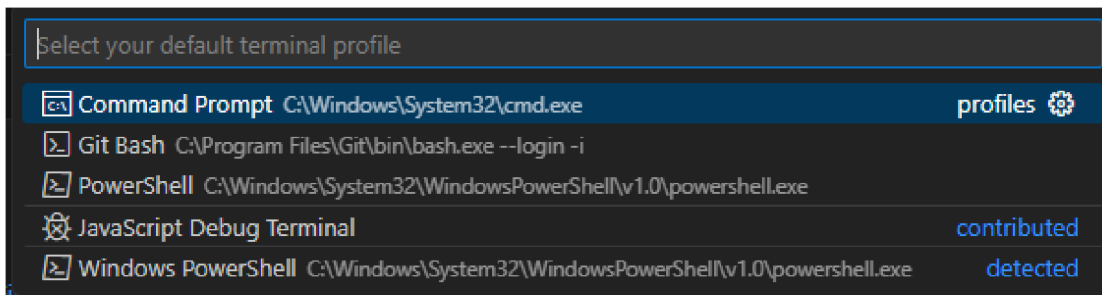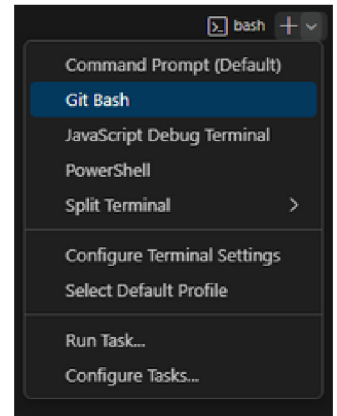

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Mac users skip down to step #6.

(5) On the right side of the terminal, click the down arrow and click git bash. It is vital we are using the Git Bash terminal for the next steps to work

It is recommended that you make Git Bash your default profile. You can do this by clicking the down arrow on the right side of the terminal again, click select default profile, then click Git Bash in the drop down menu that appeared at the top of VSCode.

		bash + ∨
Command Prompt (Default)		
Git Bash		
JavaScript Debug Terminal		
PowerShell		
Split Terminal		>
Configure Terminal Settings		
Select Default Profile		
Run Task...		
Configure Tasks...		

Select your default terminal profile	
▣ Command Prompt C:\Windows\System32\cmd.exe	profiles ⚙
▣ Git Bash C:\Program Files\Git\bin\bash.exe --login -i	
▣ PowerShell C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe	
▣ JavaScript Debug Terminal	contributed
▣ Windows PowerShell C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe	detected

Instructions will be the same for Mac and Window users past this point!

(6) Copy and paste or type this command into your terminal replacing your_email with the email you used to create your GitHub account. (See example below)
ssh-keygen -t ed25519 -C "your_email@example.com"

(7) When prompted to "Enter file in which to save the key" press enter.

(8) You can create a passphrase when it asks "Enter passphrase" if you choose but most users press enter and then enter again when asked "Enter same passphrase again"

Note: If you choose to type a password, for security purposes you will not be able to see your password as you type it

```
jacob@DESKTOP-1V1IH92 MINGW64 ~/OneDrive/Desktop/Instructions/VSCode connection to Github
$ ssh-keygen -t ed25519 -C "jacob.studstill@gmail.com"
Generating public/private ed25519 key pair.
Enter file in which to save the key (/c/Users/jacob/.ssh/id_ed25519):
Created directory '/c/Users/jacob/.ssh'.
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /c/Users/jacob/.ssh/id_ed25519
Your public key has been saved in /c/Users/jacob/.ssh/id_ed25519.pub
The key fingerprint is:
```

(9) Now that you have created a SSH key, copy and paste or type this command into your
terminal. It will copy the SSH key you just created into your computers clipboard.
clip < ~/.ssh/id_ed25519.pub

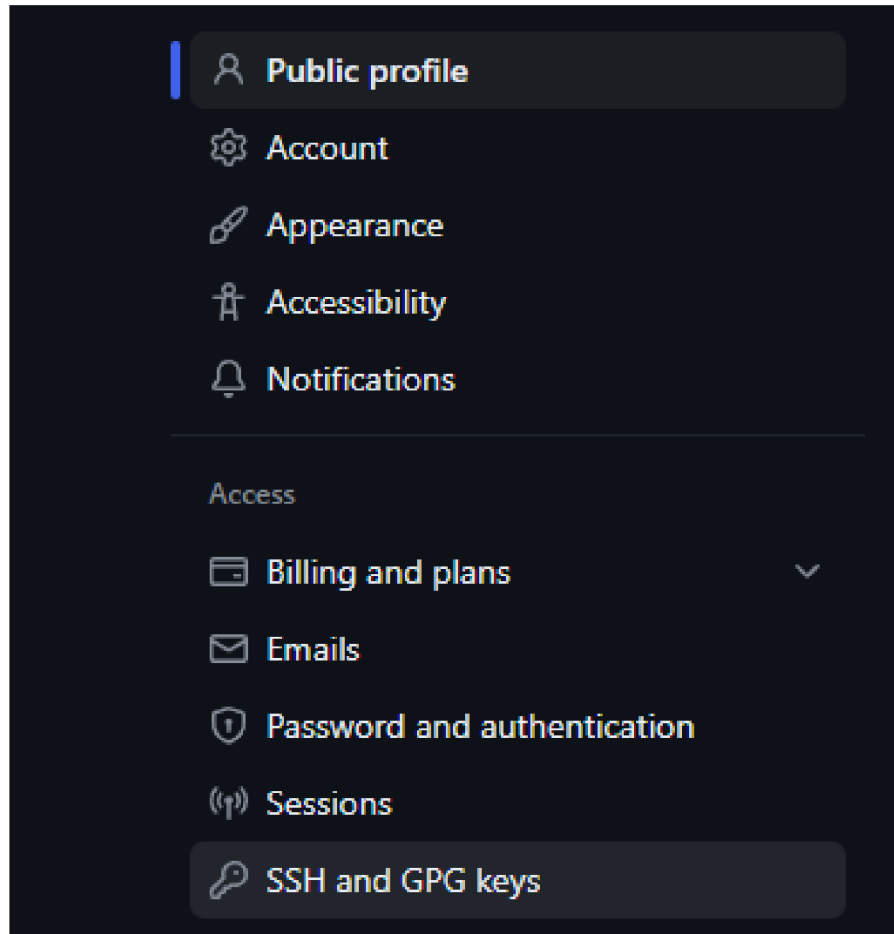 Note: There will not be visual confirmation that the SSH key was copied into your clipboard.

(10) Navigate to your profile settings on GitHub. You can do this by clicking on your profile
icon in the top right corner of your screen, then clicking settings when the menu
appears.
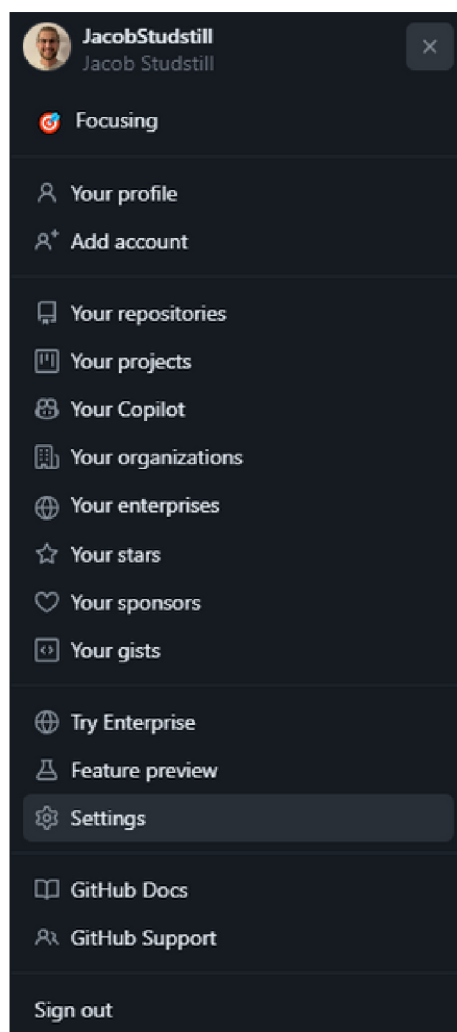
⑪ When on the settings page, find and click SSH and GPG keys from the aside bar on the left.
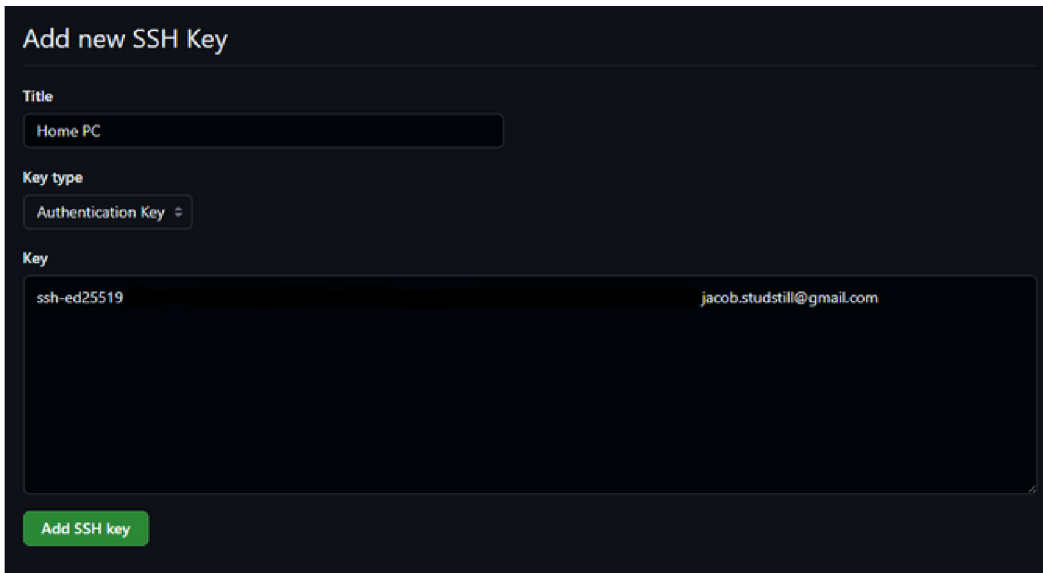
⑫ Now that you are on the SSH and GPG key page, click "New SSH Key" which will open a new page.
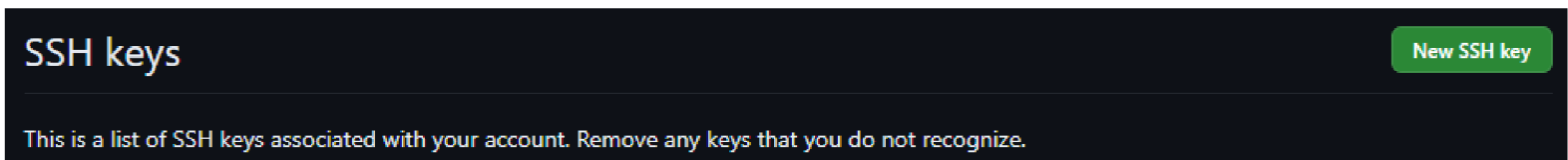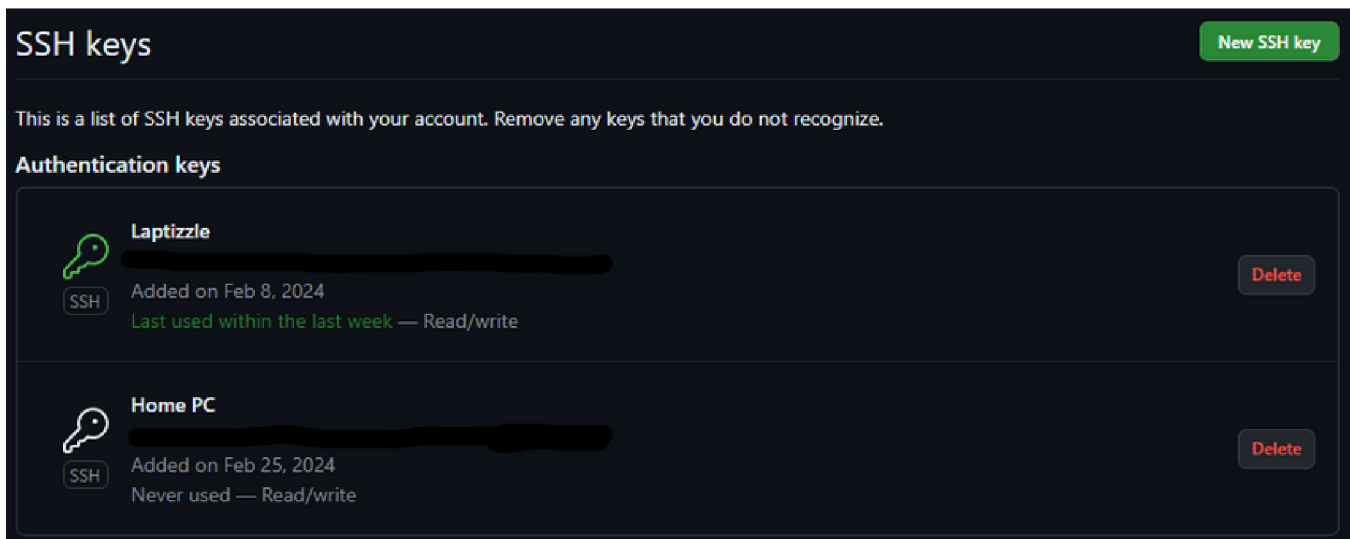

⑬ You may title the SSH key anything you want but I would recommend titling it something like "Home PC" or "School Laptop".

⑭ Make sure the "Key type" is Authentication Key.

(15) Click the empty box under "Key" and paste the SSH key you copied earlier. Once you paste the key click "Add SSH Key"

(16) Navigate back to your SSH and GPG keys webpage to verify if that SSH was added successfully to your account.

Congratulations!

You have successfully connected your VSCode to your GitHub account. Now that you have completed this, you may now seamlessly move code from your local machine to your GitHub account online. I recommend looking at this documentation how to clone repository to learn how to clone online repositories to your local machine or Git Cheat Sheet to learn about all the commands for Git.