

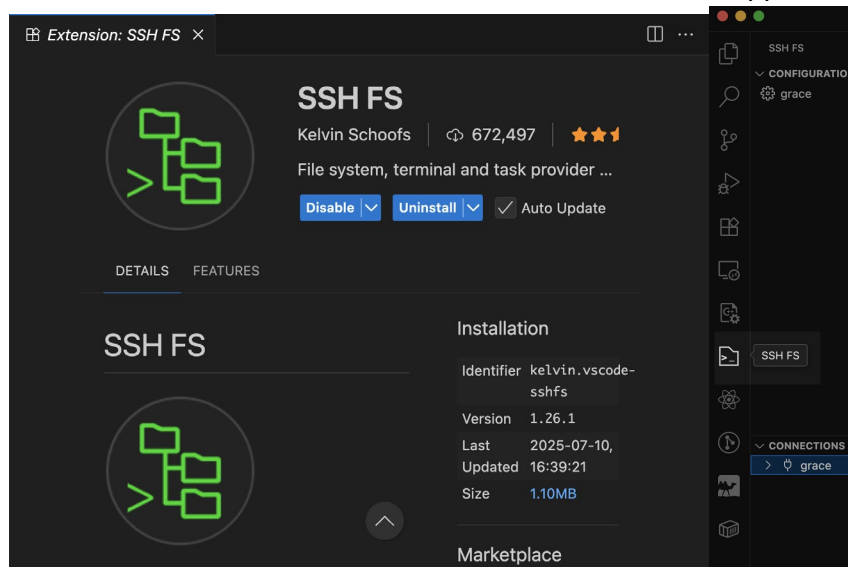
Steps to Set Up SSH Access to Grace in VS Code

Information provided by Leo Liu and Isabella Steinebach (CMSC216 Summer 2025 TA's)

You can connect to your 216 directory on Grace directly with VS Code using the **SSH FS** extension. This setup allows you to view, edit, and run your files on Grace from within VS Code. Follow the instructions below to get set up.

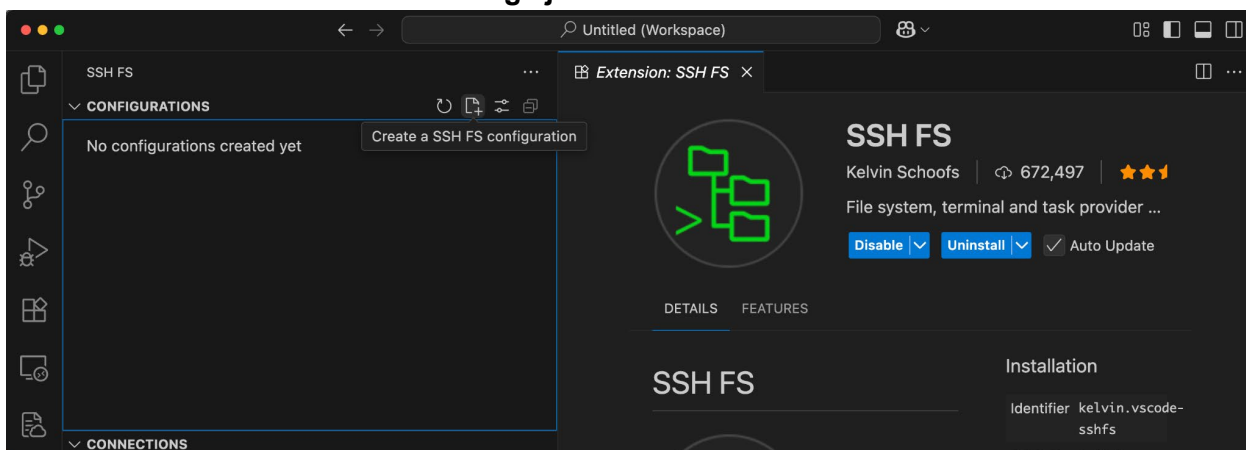
1. Install the SSH FS Extension

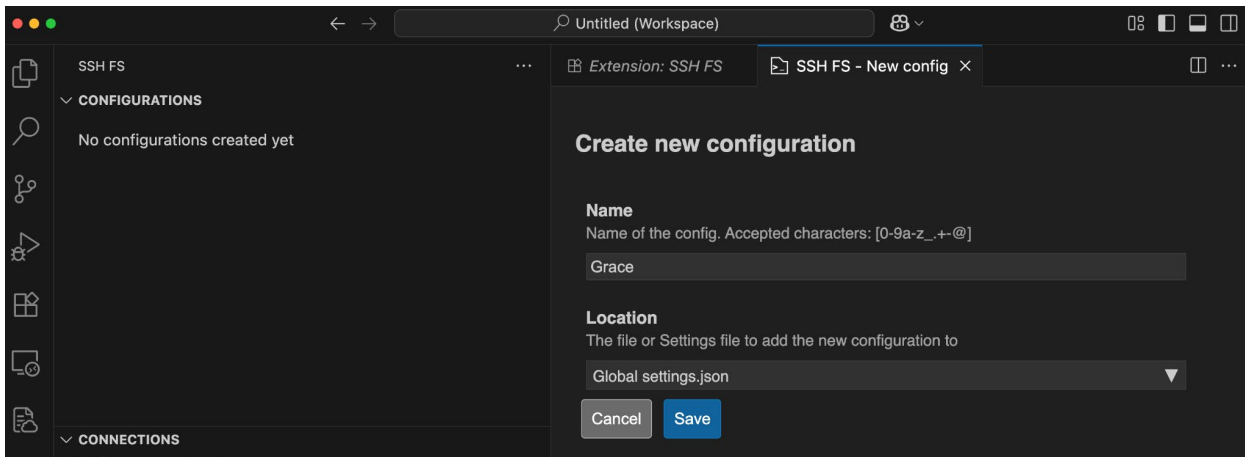
- In VS Code, go to the Extensions tab (on the left sidebar).
- Search for “**SSH FS**” by **Kelvin Schools** and install it.
- Once installed, a new icon that looks like a terminal will appear on the sidebar.



2. Create a New SSH Configuration

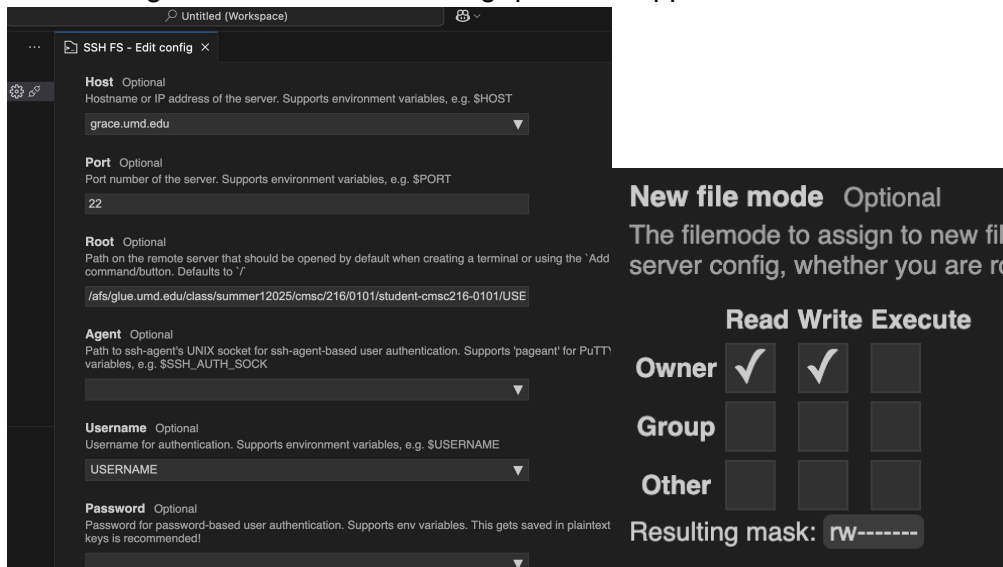
- Click the SSH FS icon on the sidebar.
- Select “**Create a SSH FS configuration.**”
- Name the configuration: **Grace**
- Location: **Global settings.json**





3. Enter the Configuration Details

- a. After saving the name, an “Edit config” pane will appear:



- b. Fill it in as follows, and click save when you are done. (Replace USERNAME with your actual Grace username)

Host: grace.umd.edu

Root: /afs/glue.umd.edu/class/summer12025/cmcs/216/0101/student-cmcs216-0101/USERNAME
 (see below note about getting the correct path)

Port: 22

Username: USERNAME (ex: terps)

New file mode: rw----- (see above photo)

(You can leave the other fields blank)

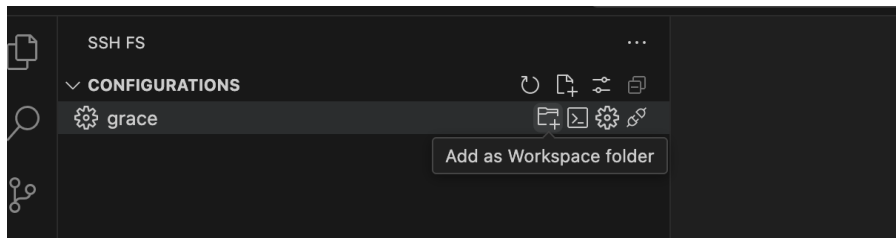
Important Configuration Notes:

- The path entry for **Root** is for Summer 2025. To find your correct path, log into Grace and navigate to your 216 directory. Then run “**realpath .**” and copy the full path it returns.

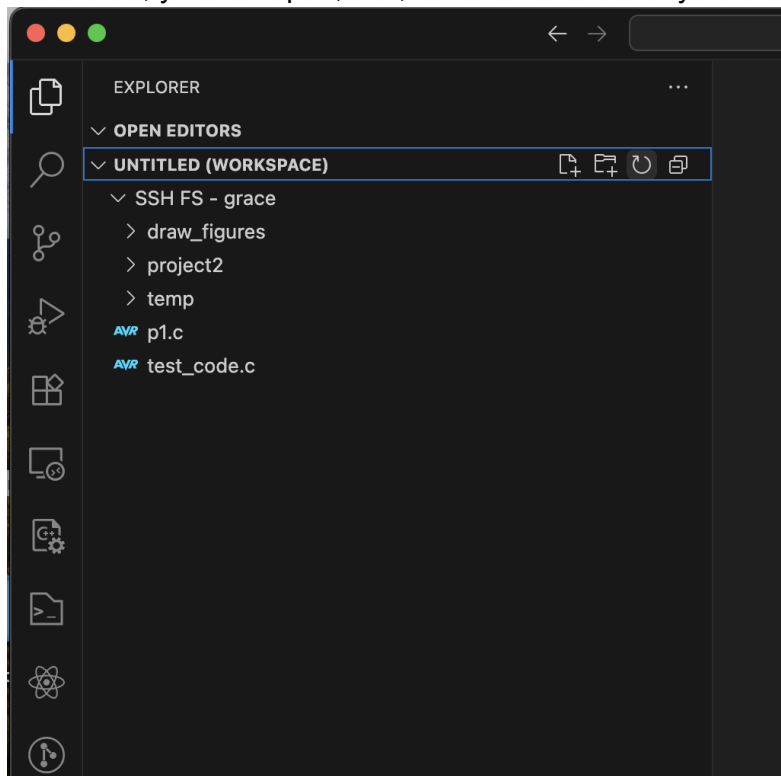
- This configuration connects directly to your ~/216 directory. If you want to connect to Grace at the root level (and access both 216 and 216public through SSH), you should insert '~' instead for 'Root', and then you must navigate to the 216 and 216public folders.
- c. Your new configuration will appear in the **CONFIGURATIONS** pane on the left.

4. Add 216 Directory to Workspace

- a. In the **CONFIGURATIONS** pane, click the first icon (a folder) next to your configuration to “Add as Workspace folder.”

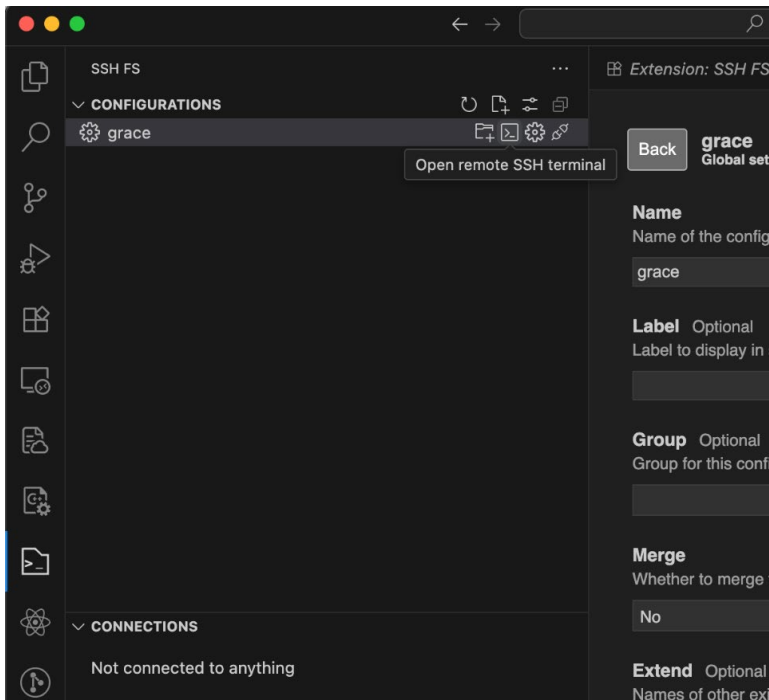


- b. You'll be prompted to enter your password and authenticate via Duo.
- c. A new folder called **SSH FS - grace** will be added to your workspace. Expand it to access your full 216 directory.
- d. From here, you can open, edit, or create files directly in VS Code.



5. Connect to Grace via Terminal

- Click the terminal icon next to it to “Open remote SSH terminal”.
- You may be prompted to enter your password and authenticate via Duo again.



6. Verify Connection

- Once connected, your SSH session will show up under the **CONNECTIONS** pane.
- A terminal will automatically open, connected directly to your 216 directory.

