

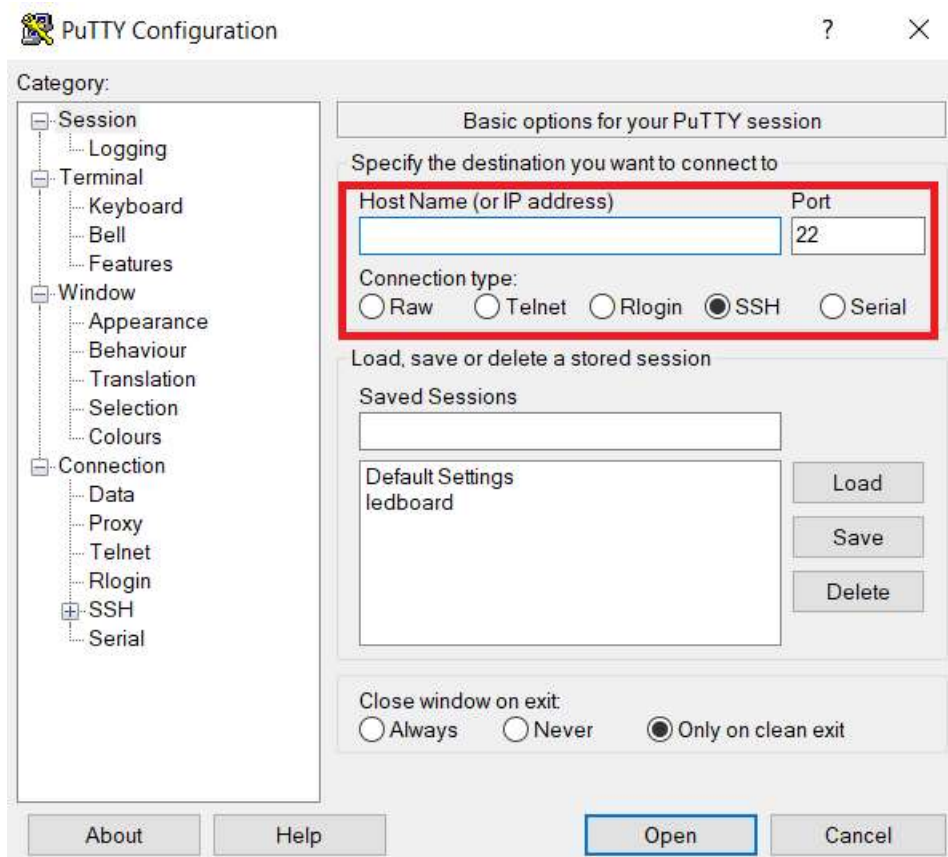
Software:

Windows – download PuTTY from the link on the course website and install, using default options. You should also download and install FileZilla from the link on the course website (watch out for the installation on FileZilla, it will attempt to install a couple of extra software packages if you just click through). Note that both of these are suggestions for SSH and SFTP clients, you can use your choice of software if you wish.

OSX/Linux – you already have the software you need

Logging in:

Windows – Open PuTTY. Type in login.cs.smcm.edu for host name and hit open. Be sure that the button for SSH is selected.



Enter your login name (your smcm email without the @smcm.edu part) and press enter. The first time you log in, it will ask you to accept a SSH certificate (which you should).

Enter your password (default is your student ID number) and press enter.

OSX/Linux – Open Terminal (Command-Space to open a search bar in OSX and type Terminal and hit enter; Linux, right-click on the desktop and click open terminal/shell).

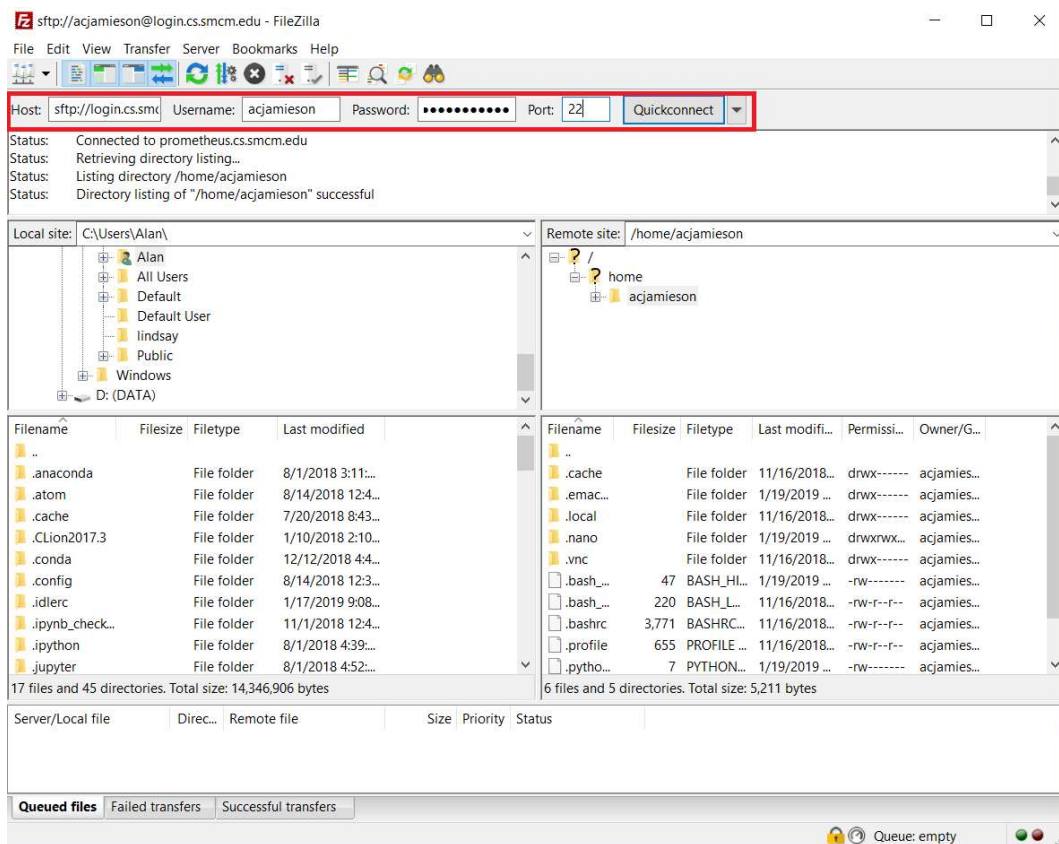
Type: `ssh yourloginname@login.cs.smcm.edu` and press enter. The first time you log in, it will ask you to accept a SSH certificate (which you should).

Enter your password (default is your student ID number) and press enter.

ON FIRST LOGIN, CHANGE YOUR PASSWORD USING `passwd`.

Transferring Files:

Windows – using FileZilla, enter the server (`sftp://login.cs.smcm.edu`), your login, and your password in the box noted below, and hit Quick Connect. Drag files from one window to the other to transfer.



OSX/Linux – use the `sftp` utility from Terminal. `sftp` is a command-line utility that will allow you to move files from your filesystem to the server and vice versa. Usage:

To log in (from Terminal): `sftp yourloginname@login.cs.smcm.edu` and press enter.

To get a file from the server (will be stored in the directory you ran `sftp` from): `get filename`

To upload a file to the server (will be stored in your home directory unless you change to a different directory first): `put filename`

To quit: `exit`

Navigating *nix Systems:

*nix systems use shell commands to navigate, there is no GUI! Here's a list of common commands that you may need:

ls	list all the files in the current directory
ls -l	list all the files in the current directory, with some details
cd	change directory, usage: <code>cd gotothisdirectory</code>
mkdir	make a new directory, usage: <code>mkdir newdirectoryname</code>
pwd	present working directory (what directory am I in?)
man	get the manual information for a command, usage: <code>man command</code>

Plain-text Editing:

There are three installed editors: nano, vi, and emacs. Nano is probably the simplest to use. To open a file (or create a new file) with nano:

```
nano filename
```

To save your file, press CTRL-O, and to quit, press CTRL-Q.

C/C++ Compilation:

From the terminal –

To compile and run C source files, run these two commands in order:

```
gcc filename.c  
./a.out
```

To compile and run C++ source files:

```
g++ source1.cpp source2.cpp  
./a.out
```

As a note, if you have more .cpp files (more classes for instance) you'll just add more source files to the end of your compilation command. You should only need to have the .cpp files here for the compiling process.

Python 3 Compilation/Execution:

From the terminal, to compile and run Python 3 source files:

```
python3 filename.py
```