

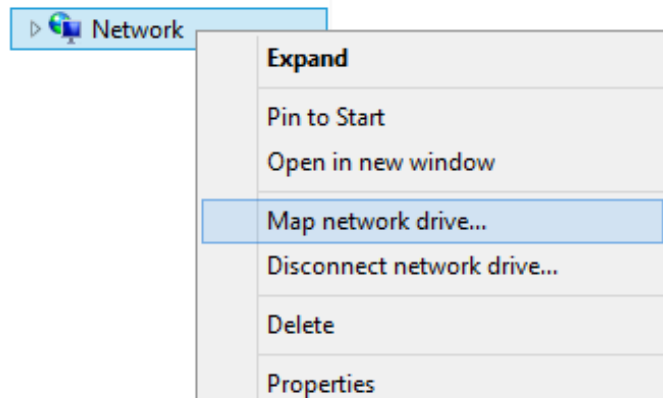
CSCE 206 Lab: Compile and Run

1. Mapping your H: Drive

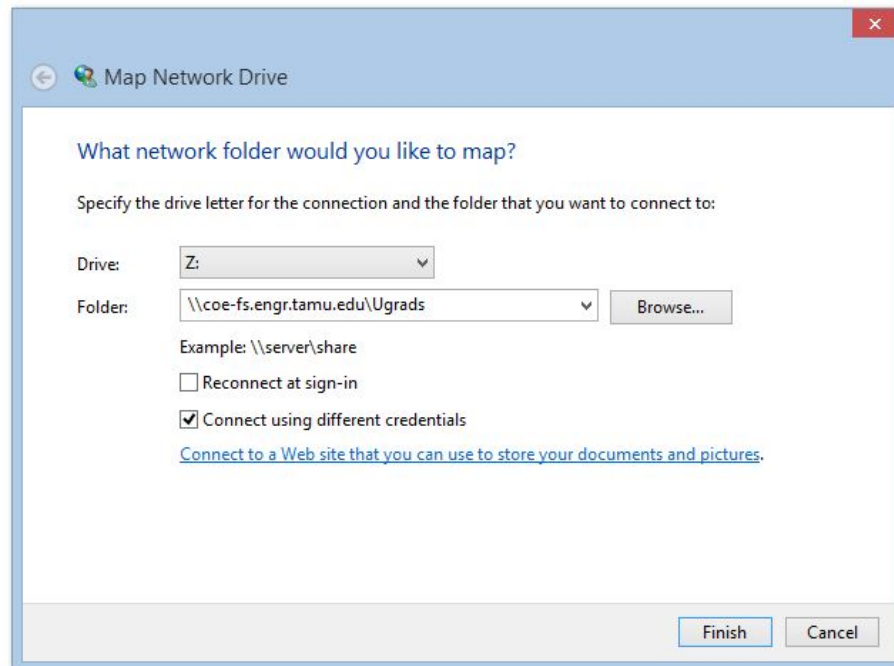
All students enrolled in CSE Courses get access to online storage space for their use. This appears as your H: drive in the computers in the labs in the HRBB/RDMC/RICH buildings. To Map your H: drive to your personal machine (or if the H: is missing on the lab computer that you logged into), follow the instructions here.

Windows:

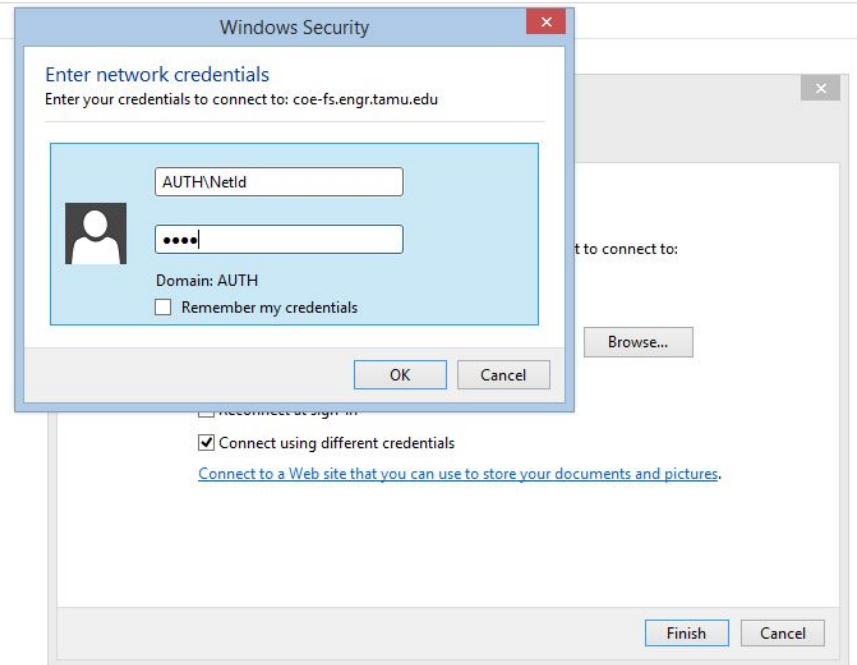
1. Open windows file explorer.
2. Right click on Network and select Map Network Drive option.



3. Enter [\\coe-fs.engr.tamu.edu\Ugrads](https://coe-fs.engr.tamu.edu/Ugrads) in the Folder bar and click on Finish.

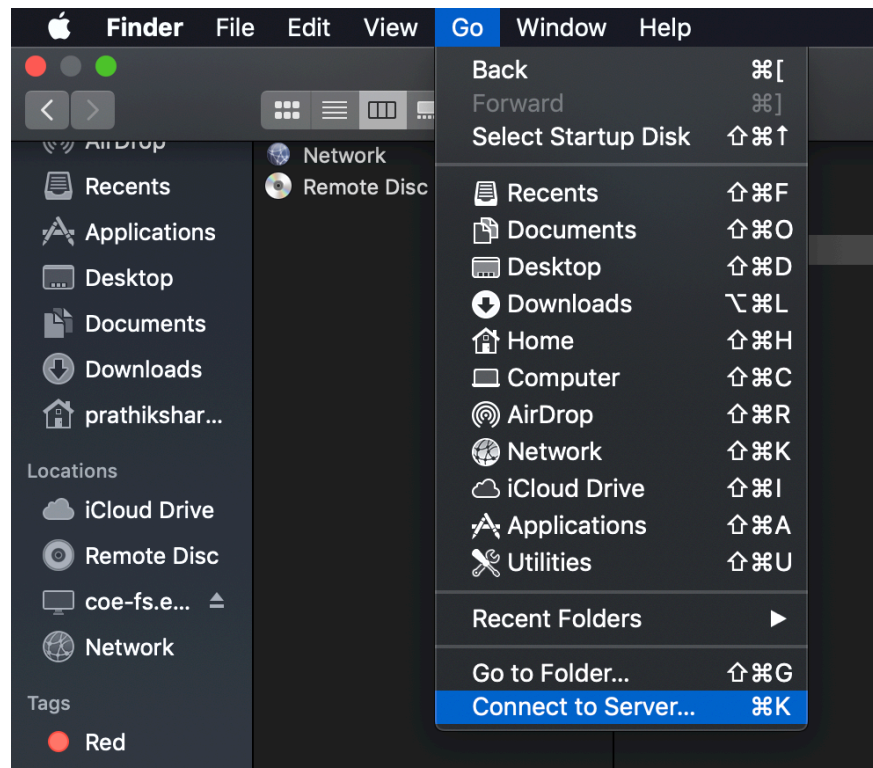


4. Enter your NetID preceded by AUTH\ and password. Click on OK.



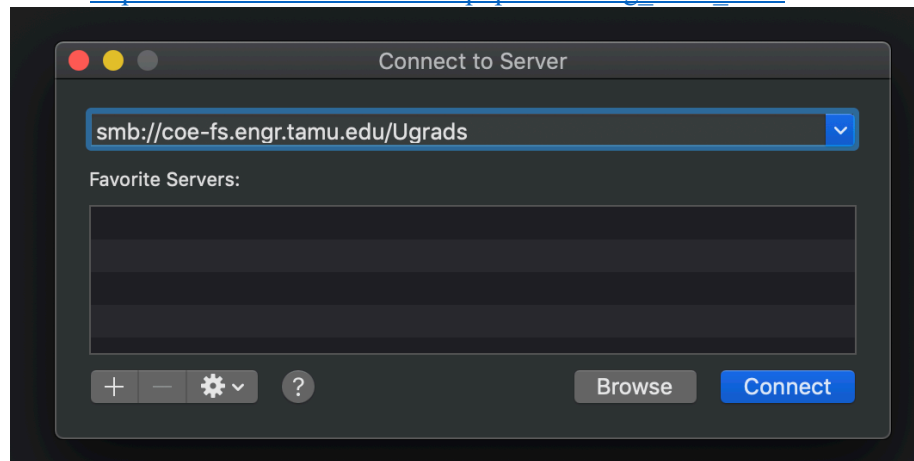
MacOS:

1. Open a finder window.
2. Click on Go -> Connect to Server

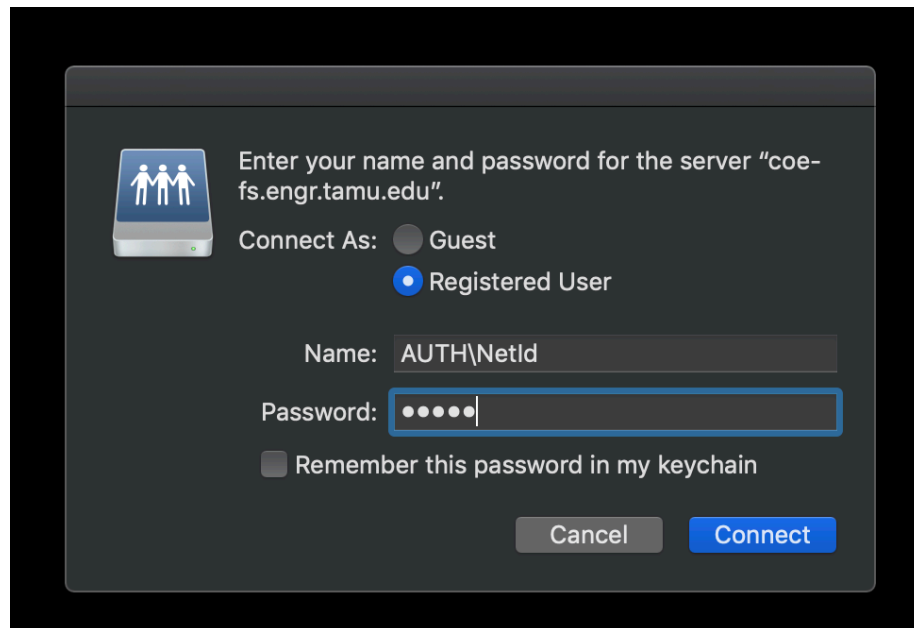


3. Enter smb://coe-fs.engr.tamu.edu/Ugrads in Connect to Server box and click on Connect.

Refer: https://wiki.cse.tamu.edu/index.php/Accessing_Your_Files

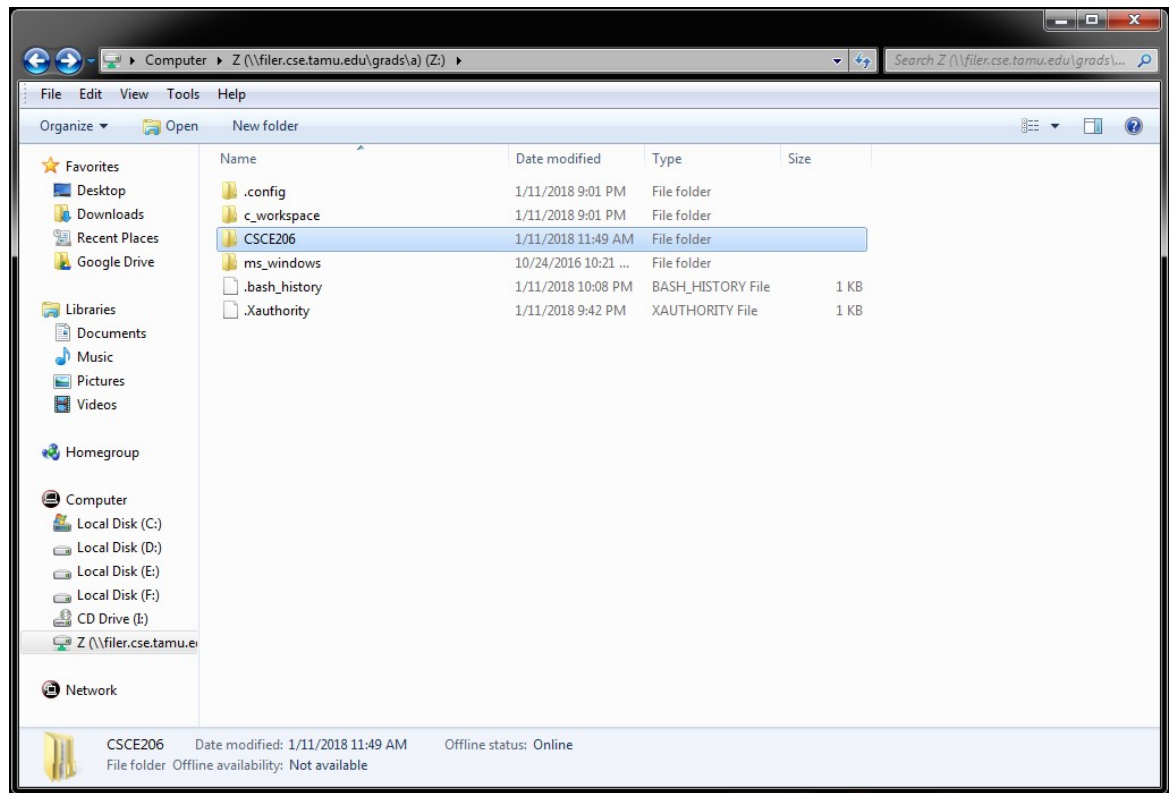


4. Enter your NetId preceded by AUTH\ and the password corresponding to your NetId and click on Connect.

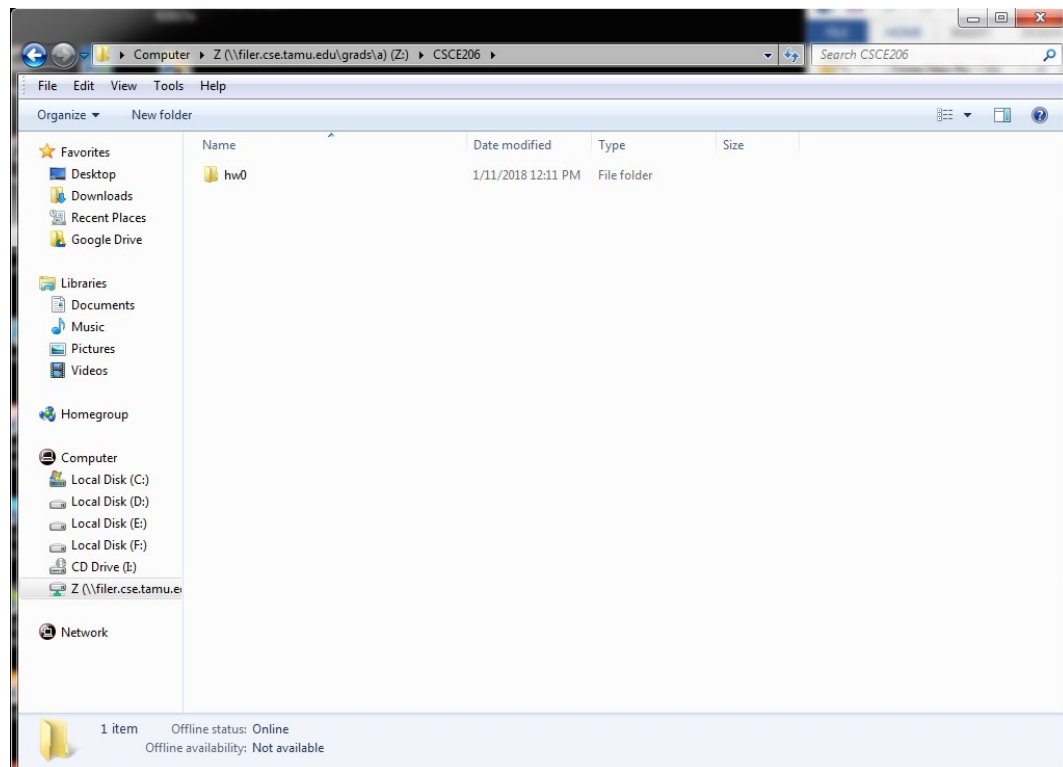


2. Create an Assignment Folder

- 1) Open up your File Explorer and navigate to your **network drive**. Then create a folder named CSCE206.

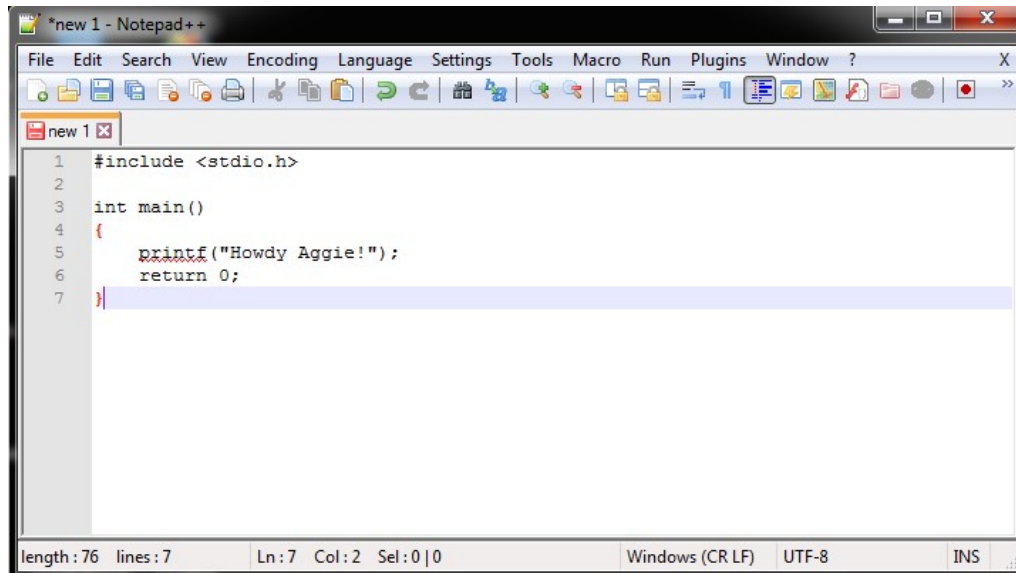


2) Go into the folder CSCE206 and create a folder for the homework0 named **HW0**.



3. Write the Program

- 1) Go into the folder **HW0**, and create a file named *filename.c*, where *filename* can be any name you want (for the assignments needed to be graded, you should name the file as Hw1_q1_code.c, Hw2_q1_code.c, ...etc). Here I use hw0_code.c. Then, open it up by [Notepad++](#) (or other text edit software) and write your code.

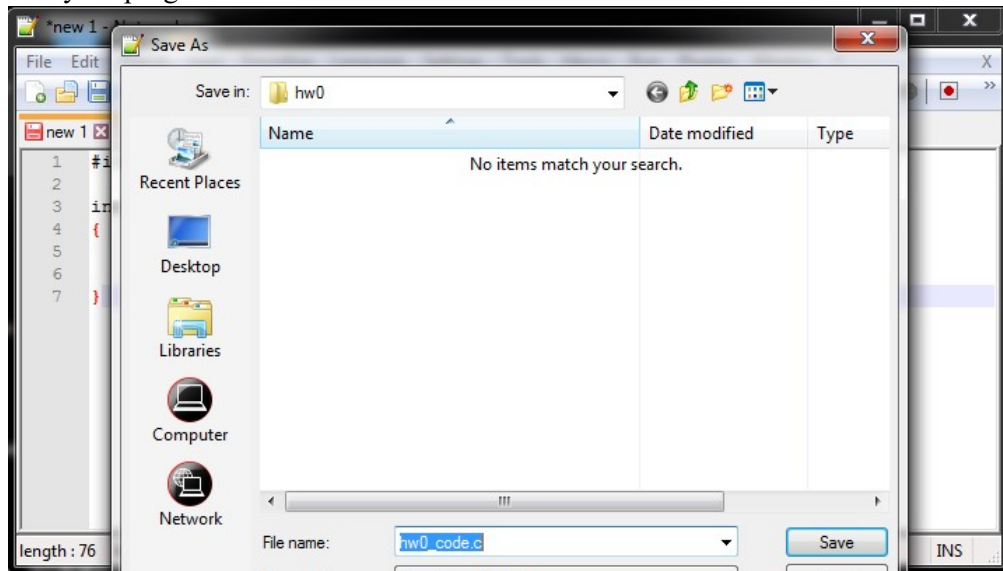


A screenshot of the Notepad++ application window. The title bar reads '*new 1 - Notepad++'. The menu bar includes File, Edit, Search, View, Encoding, Language, Settings, Tools, Macro, Run, Plugins, Window, and ?. The toolbar contains various icons for file operations and editing. The text area shows a C program with the following code:

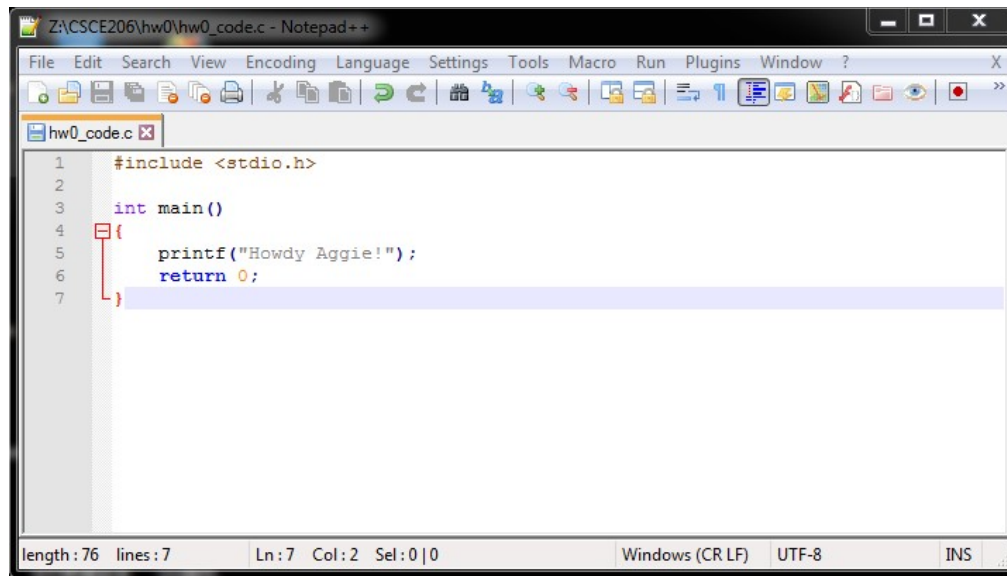
```
1 #include <stdio.h>
2
3 int main()
4 {
5     printf("Howdy Aggie!");
6     return 0;
7 }
```

The status bar at the bottom indicates 'length: 76 lines: 7', 'Ln: 7 Col: 2 Sel: 0 | 0', 'Windows (CR LF)', 'UTF-8', and 'INS'.

- 2) Save your program.



- 3) Once your file is saved, these sentences should change colors.

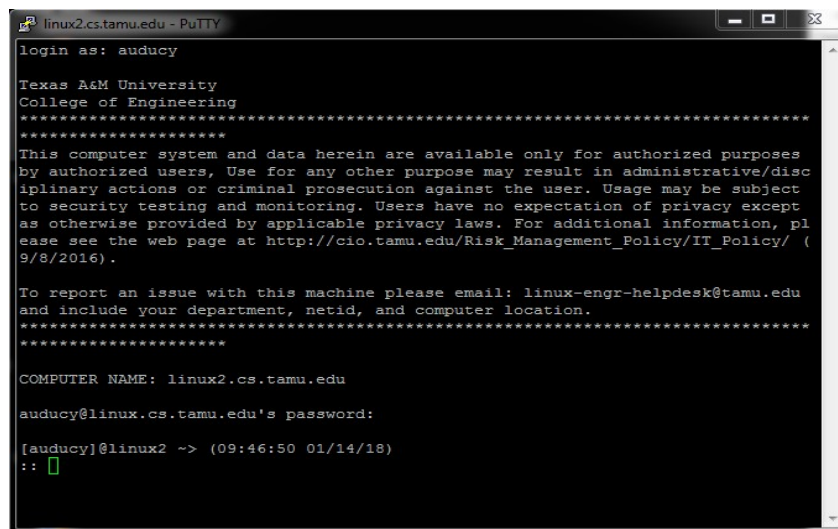
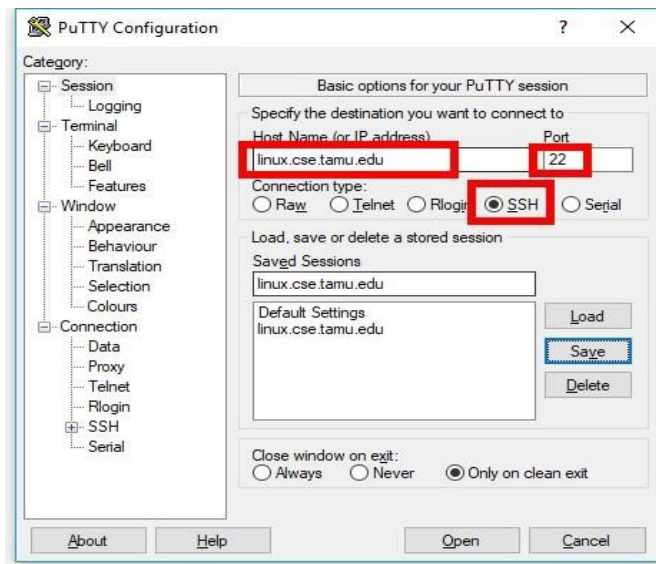


```
1  #include <stdio.h>
2
3  int main()
4  {
5      printf("Howdy Aggie!");
6      return 0;
7  }
```

length: 76 lines: 7 Ln: 7 Col: 2 Sel: 0 | 0 Windows (CR LF) UTF-8 INS

4. Compile and Run the Program

- 1) **Windows:** Open **PuTTY** and connect using **linux.cse.tamu.edu**. Login using your NetID and password. For security reasons, no characters will appear when you type your password.



MAC: Open a Terminal window and ssh using the following command.

ssh NetId@linux.cs.tamu.edu and enter your NetId password. For security reasons, no characters will appear when you type your password.

```
(base) Prathikshas-MacBook-Pro:~ prathiksharprasad$ ssh NetId@linux.cs.tamu.edu

Texas A&M Engineering
*****
This computer system and data herein are available only for authorized purposes by authorized users. Use for any other purpose may result i
n administrative/disciplinary actions or criminal prosecution against the user. Usage may be subject to security testing and monitoring. Us
ers have no expectation of privacy except as otherwise provided by applicable privacy laws. By using this computer system the user agrees t
o comply with all applicable laws and policies governing the use of Texas information resources. For further information, refer to Texas A&
M University System Policy 29.01.03.

To report an issue with this machine please email: linux-engr-helpdesk@tamu.edu and include your department, netid, computer location and c
omputer name.
*****

If you get the error message: Can't create home directory
Then you will need to first create your home directory. Directions are available in your browser by visiting the following web page: http://
/bit.ly/linuxhomedoc

COMPUTER NAME: linux2.cs.tamu.edu

NetId@linux.cs.tamu.edu's password: ?
```

- 2) Use the linux commands “*ls*” and “*cd directoryName*” to navigate your file folder (it’s the same as your network drive). *ls* lists all the directories and files in your current directory (directories appear blue, files appear green). *cd* allows you to navigate into the directory you specify.


```
linux2.cs.tamu.edu - PuTTY

Texas A&M University
College of Engineering
*****
This computer system and data herein are available only for authorized purposes
by authorized users. Use for any other purpose may result in administrative/disc
iplinary actions or criminal prosecution against the user. Usage may be subject
to security testing and monitoring. Users have no expectation of privacy except
as otherwise provided by applicable privacy laws. For additional information, pl
ease see the web page at http://cio.tamu.edu/Risk\_Management\_Policy/IT\_Policy/ (
9/8/2016).

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and include your department, netid, and computer location.
*****

COMPUTER NAME: linux2.cs.tamu.edu

auducy@linux.cs.tamu.edu's password:

[auducy]@linux2 ~> (09:46:50 01/14/18)
:: ls
CSCE206  c_workspace  ms_windows

[auducy]@linux2 ~> (09:49:06 01/14/18)
::
```

```
linux2.cs.tamu.edu - PuTTY

by authorized users. Use for any other purpose may result in administrative/disc
iplinary actions or criminal prosecution against the user. Usage may be subject
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:: ls
CSCE206  c_workspace  ms_windows

[auducy]@linux2 ~> (09:49:06 01/14/18)
:: cd CSCE206

[auducy]@linux2 ~/CSCE206> (09:52:39 01/14/18)
:: ls
hw0

[auducy]@linux2 ~/CSCE206> (09:52:43 01/14/18)
::
```

Note: When you change directories, your console will show your current directory (highlighted below). To move back up to the parent level, use the command “cd ..”.

```
linux2.cs.tamu.edu - PuTTY
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CSCE206  c_workspace  ms_windows

[auducy]@linux2 ~> (09:49:06 01/14/18)
:: cd CSCE206

[auducy]@linux2 ~/CSCE206> (09:52:39 01/14/18)
:: ls
hw0

[auducy]@linux2 ~/CSCE206> (09:52:43 01/14/18)
::
```

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*****

COMPUTER NAME: linux2.cs.tamu.edu
auducy@linux.cs.tamu.edu's password:

[auducy]@linux2 ~> (09:46:50 01/14/18)
:: ls
CSCE206  c_workspace  ms_windows

[auducy]@linux2 ~> (09:49:06 01/14/18)
:: cd CSCE206

[auducy]@linux2 ~/CSCE206> (09:52:39 01/14/18)
:: ls
hw0

[auducy]@linux2 ~/CSCE206> (09:52:43 01/14/18)
:: cd hw0

[auducy]@linux2 ~/CSCE206/hw0> (09:57:41 01/14/18)
:: ls
hw0_code.c

[auducy]@linux2 ~/CSCE206/hw0> (09:57:44 01/14/18)
::
```

- 3) Once you are in the directory with your program file, run the command “gcc filename.c -o outputFilename” to compile it. If your program compiles successfully, you’ll see a new file created in the directory. If there is an error, an error message will print indicating the line the error occurred on and a general description of what the error is. (Below shows a typo of -0 which should be -o correctly and will get error messages as return.)

```
linux2.cs.tamu.edu - PuTTY

[auducy]@linux2 ~> (09:46:50 01/14/18)
:: ls
CSCE206  c_workspace  ms_windows

[auducy]@linux2 ~> (09:49:06 01/14/18)
:: cd CSCE206

[auducy]@linux2 ~/CSCE206> (09:52:39 01/14/18)
:: ls
hw0

[auducy]@linux2 ~/CSCE206> (09:52:43 01/14/18)
:: cd hw0

[auducy]@linux2 ~/CSCE206/hw0> (09:57:41 01/14/18)
:: ls
hw0_code.c

[auducy]@linux2 ~/CSCE206/hw0> (09:57:44 01/14/18)
:: gcc hw0_code.c -o hw0_code
gcc: error: hw0_code: No such file or directory
gcc: error: unrecognized command line option '-o'

[auducy]@linux2 ~/CSCE206/hw0> (09:59:35 01/14/18)
:: gcc hw0_code.c -o hw0_code

[auducy]@linux2 ~/CSCE206/hw0> (09:59:46 01/14/18)
::
```

- 4) Use “ls” to check one more file named “hw0_code” generated in your “hw0” folder.

```
linux2.cs.tamu.edu - PuTTY

[auducy]@linux2 ~> (09:49:06 01/14/18)
:: cd CSCE206

[auducy]@linux2 ~/CSCE206> (09:52:39 01/14/18)
:: ls
hw0

[auducy]@linux2 ~/CSCE206> (09:52:43 01/14/18)
:: cd hw0

[auducy]@linux2 ~/CSCE206/hw0> (09:57:41 01/14/18)
:: ls
hw0_code.c

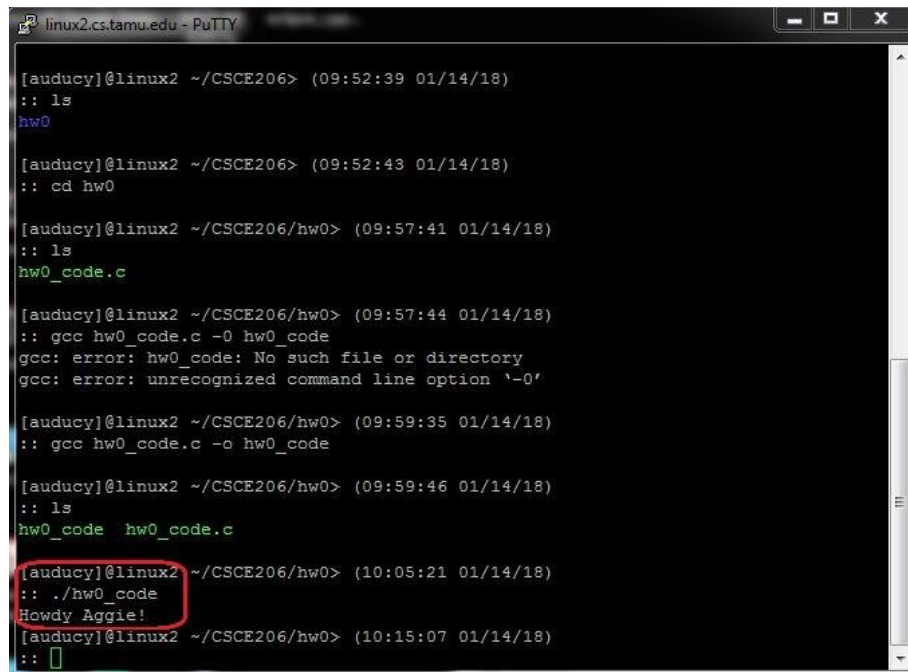
[auducy]@linux2 ~/CSCE206/hw0> (09:57:44 01/14/18)
:: gcc hw0_code.c -o hw0_code
gcc: error: hw0_code: No such file or directory
gcc: error: unrecognized command line option '-o'

[auducy]@linux2 ~/CSCE206/hw0> (09:59:35 01/14/18)
:: gcc hw0_code.c -o hw0_code

[auducy]@linux2 ~/CSCE206/hw0> (09:59:46 01/14/18)
:: ls
hw0_code  hw0_code.c

[auducy]@linux2 ~/CSCE206/hw0> (10:05:21 01/14/18)
::
```

- 5) Use the command “./outputFilename” to run the compiled program, you will see the result of the program (print “Howdy Aggie!” on the screen).



```
linux2.cs.tamu.edu - PuTTY

[auducy]@linux2 ~/CSCE206> (09:52:39 01/14/18)
:: ls
hw0

[auducy]@linux2 ~/CSCE206> (09:52:43 01/14/18)
:: cd hw0

[auducy]@linux2 ~/CSCE206/hw0> (09:57:41 01/14/18)
:: ls
hw0_code.c

[auducy]@linux2 ~/CSCE206/hw0> (09:57:44 01/14/18)
:: gcc hw0_code.c -o hw0_code
gcc: error: hw0_code: No such file or directory
gcc: error: unrecognized command line option '-o'

[auducy]@linux2 ~/CSCE206/hw0> (09:59:35 01/14/18)
:: gcc hw0_code.c -o hw0_code

[auducy]@linux2 ~/CSCE206/hw0> (09:59:46 01/14/18)
:: ls
hw0_code hw0_code.c

[auducy]@linux2 ~/CSCE206/hw0> (10:05:21 01/14/18)
:: ./hw0_code
Howdy Aggie!

[auducy]@linux2 ~/CSCE206/hw0> (10:15:07 01/14/18)
::
```

Awesome, isn't it ^_^!

6) Use “exit” to exit from Linux before you close PuTTY.

Note:

- When a change is made to your program in Notepad++ you must save it first and then recompile it using gcc to see any changes.
- Linux allows you to browse your command history with **up/down** keys on your keyboard. Also, hit the **Tab** key will auto-complete the directory or filename you are typing. These tricks will save a lot of time. Try to remember them.