

CSCE 206 Lab: Compile and Run

1. Mapping your H: Drive in Windows.

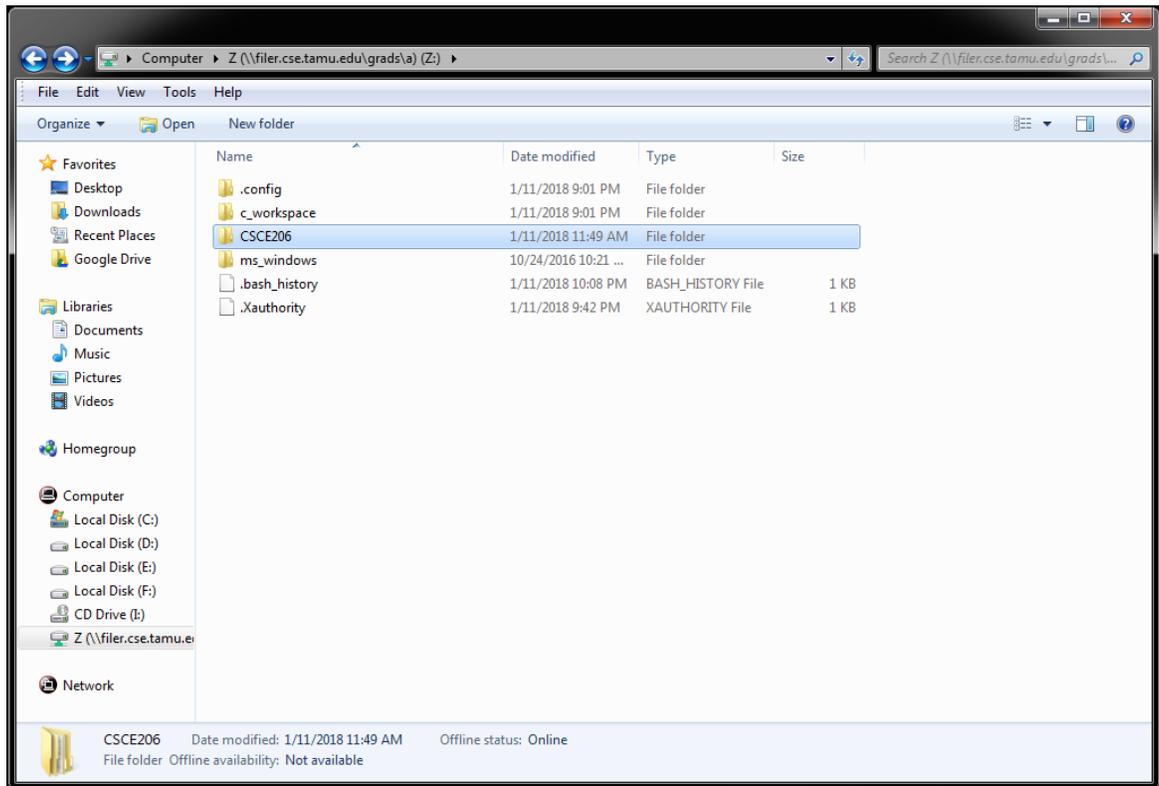
All students enrolled in CSE Courses get access to online storage space for their use. This appears as your H: drive in the computers in the labs in the HRBB/RDMC/RICH buildings. To Map your H: drive to your personal machine (or if the H: is missing on the lab computer that you logged into), follow the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

Windows: [Mapping your CSE H: Drive](#)

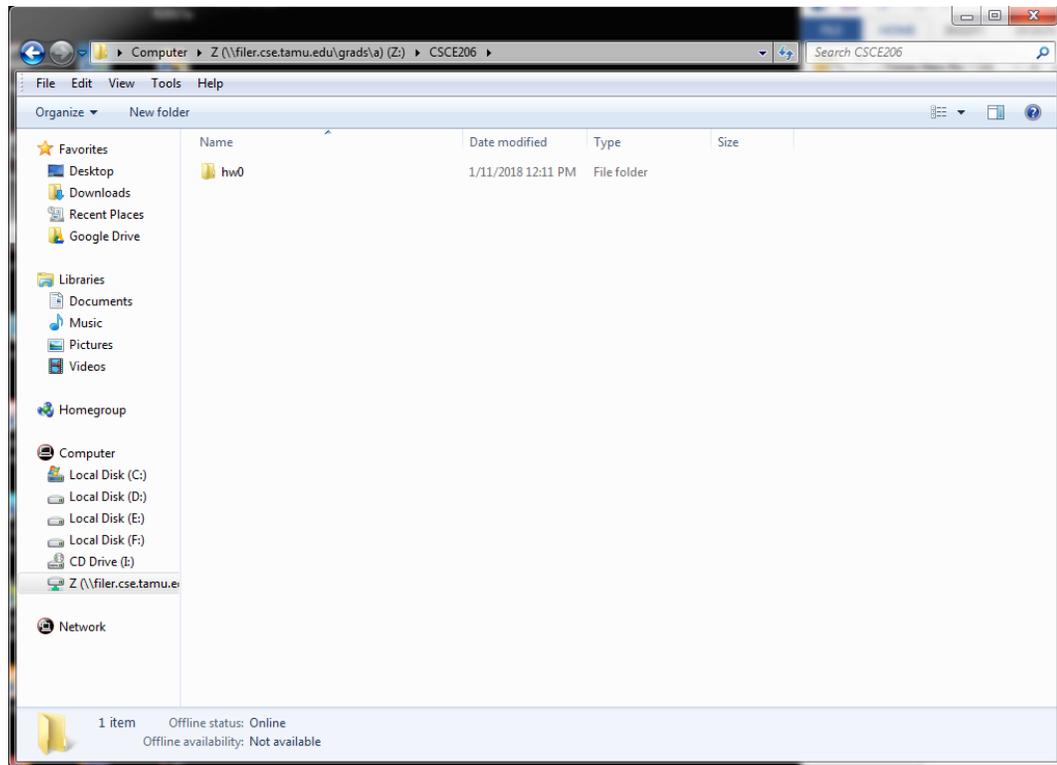
MacOS: [Mapping your CSE H: Drive](#)

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**.



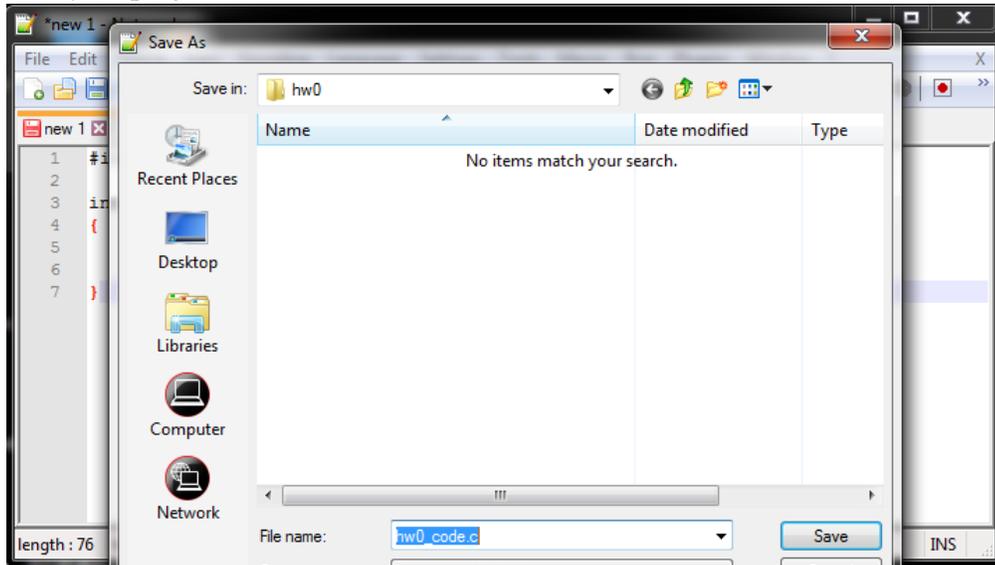
3. Write the Program

- 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.

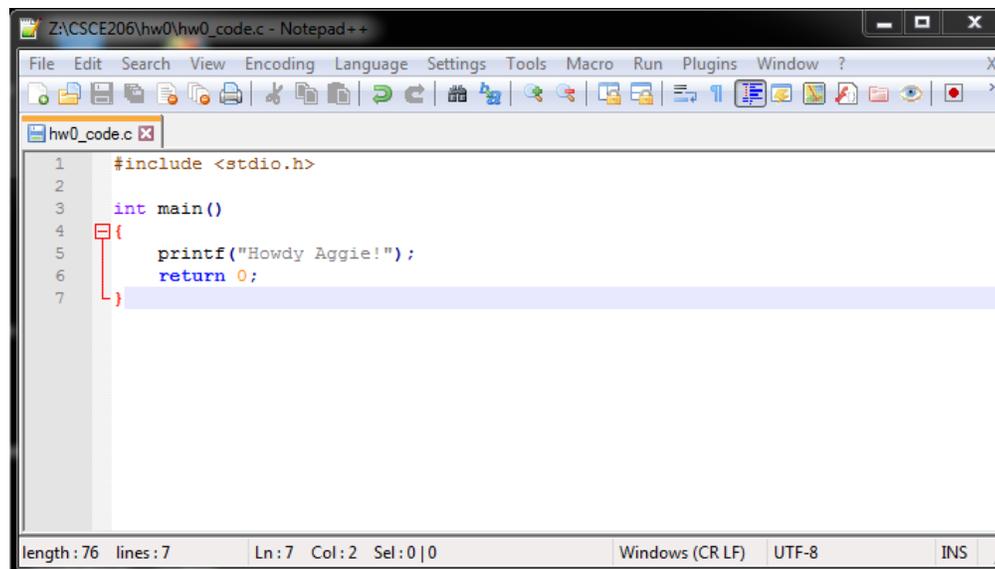
```
*new 1 - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
new 1
1 #include <stdio.h>
2
3 int main()
4 {
5     printf("Howdy Aggie!");
6     return 0;
7 }
```

The screenshot shows the Notepad++ application window with a new file named 'new 1'. The code in the editor is a simple C program that includes the standard input/output header, defines a main function, and prints the string "Howdy Aggie!". The status bar at the bottom indicates the file length is 76 characters, 7 lines, and the current cursor position is at line 7, column 2.

2) Save your program.

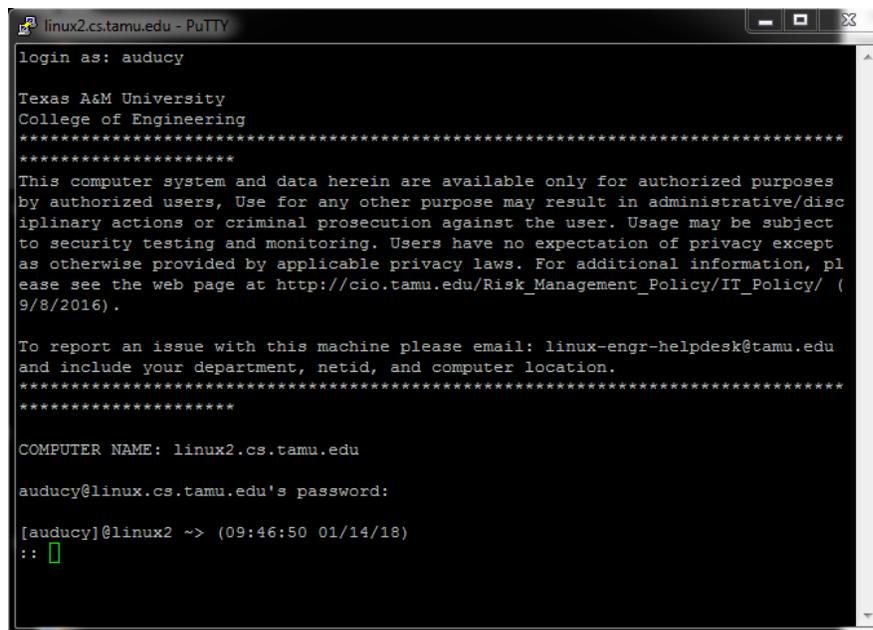
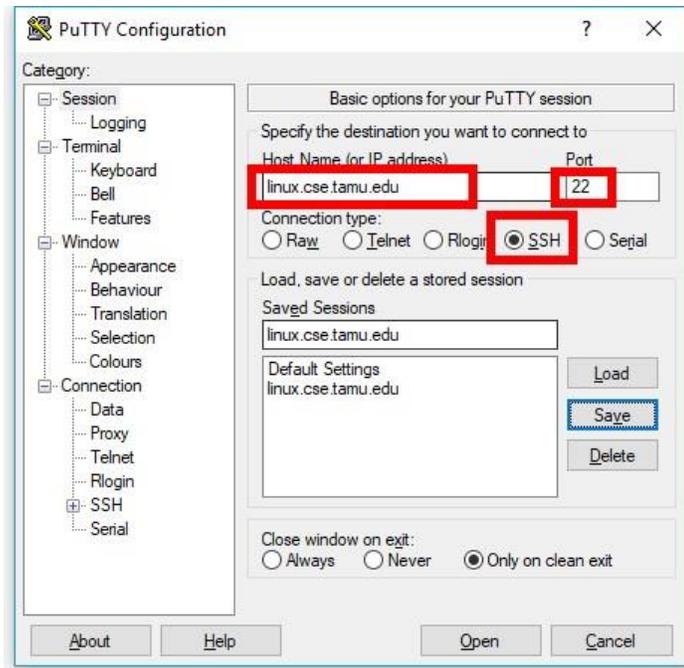


3) Once your file is saved, these sentences should change colors.



4. Compile and Run the Program

1) 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.



- 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) .

To report an issue with this machine please email: linux-engr-helpdesk@tamu.edu
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
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) .

To report an issue with this machine please email: linux-engr-helpdesk@tamu.edu
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)
:: 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
by authorized users, Use for any other purpose may result in administrative/disciplinary 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, please see the web page at http://cio.tamu.edu/Risk_Management_Policy/IT_Policy/ (9/8/2016).

To report an issue with this machine please email: linux-engr-helpdesk@tamu.edu 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)
:: cd CSCE206

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

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

```
linux2.cs.tamu.edu - PuTTY
To report an issue with this machine please email: linux-engr-helpdesk@tamu.edu 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)
:: 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 re-compile 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.