Please be patient with this. I suggest you follow the process, even if you don’t understand exactly what you are doing. We will discuss all of this at the next class period. I think this will be more understandable if you have been through the process already than if you have never sat down and done it and are trying to imagine, in the abstract, what is happening.

1. Log in to the Windows machine at your station. This will require your login id and your SSN as the initial password.

2. You should now be on the Windows desktop.

3. Invoke the Internet Explorer browser. Go to web page http://www.cse.sc.edu

4. **ONE TIME WORK:** The next several steps will set your dot forward file so that email to your CSE account gets sent where you want it to be sent. You have an email account that is your CSE login on the CSE departmental machines. The purpose of these steps is to set the dot forward file so that email sent to you@cse.sc.edu gets sent wherever you wish that mail to be sent instead of just collecting in your
CSE department inbox.

(a) At the top of the web page, click on the “CSE Secure Login” button.

(b) Enter your login name and password.

(c) Halfway down the left hand side scrollbar, click on “Using email”.

(d) Halfway down the center of the page, click on “Forward your email”.

(e) Enter the forwarding address to which you wish your CSE email to be sent.

5. The next several steps show you how to change your password for the CSE departmental account. You should change your password sometime very soon. You may change your password as often as you like. You should browse the secure web site’s information on how to create good passwords.

(a) Back out of the forwarding page.

(b) Click on the “Password” line on the secure web page scrollbar.
(c) Notice the “Change CSE password” button.

6. **Notice the other things on the secure web page menu.**

   (a) The “Dropbox” button is where you go to deposit your assignments.

   (b) The “CSE computing” button has a button underneath it that says “Unix workstations”. If you click on this, then you will get a list of the Unix workstations to which you can login to get your programming assignments done. We’ll return to this later.

7. **ONE TIME WORK: The next several steps will get you registered on the class email list.**

   (a) Back out of the secure web page and go back to the departmental web page.

   (b) In the upper right hand corner, click on the “CSE Mailing Lists” button.

   (c) Click into the “CSCE206” email list.

   (d) Subscribe to the class email list by adding an email address and your name in the boxes indicated. You
may use any email address you choose here. Please put your name here, especially if your email address does not tell me who this account is. I really would like to be able to tell who has and who may not have registered for the email list, and if I can’t match up names with email addresses this becomes more difficult.

(e) Add a password if desired.

8. **ONE TIME WORK:** The next several steps will connect your Windows file system (this is the file system of the College of Engineering and Information Technology) to the Unix file system of the Department of Computer Science and Engineering.

(a) RIGHT click on the “My Computer” icon.

(b) Choose “Map Network Drive.”

(c) In the first box, type “U:”.

(d) In the second box, type

```
\polaris\yourlogin
```

where of course you substitute your own login id for the “yourlogin” string.
(f) Click the “reconnect” box to be “yes”.

9. EVERY TIME WORK: The next several steps will open a window for you on a Unix workstation. These steps are the steps you will follow every time you wish to get to a Unix machine for programming your Fortran assignments.

(a) Under the “Start” button for Windows, go to “Programs” and then to “SSH secure shell” and then to “Secure shell client”, and click to open.

(b) You should have a window opened on your desktop.

(c) Move the cursor into the window, click to set the focus, and hit “Enter”.

(d) Under “Host Name” you can put any of the machine names in the Unix workstation list. I suggest for the purpose of this lab exercise that

i. If your Social Security number ends in a 0, enter 
   altair.cse.sc.edu

ii. If your Social Security number ends in a 1, enter
    antares.cse.sc.edu
iii. If your Social Security number ends in a 2, enter
   arcturus.cse.sc.edu

iv. If your Social Security number ends in a 3, enter
    hadar.cse.sc.edu

(e) Under “User Name”, enter your CSE department login.

(f) Under “Port”, enter 22.

(g) Under “Authentication Method”, use “Password”.

(h) Note that all the settings will be remembered for you
    in subsequent logins.

(i) When prompted for your password, enter the password.

(j) You are now logged into one of the Unix machines.

10. The next several steps will download a sample pro-
    gram, and download a sample makefile, and compile
    and execute a Fortran program.

    (a) It is a good idea to do each of the programming assign-
        ments in a different directory (“directory” is the Unix
        word for what Windows calls “folders.”) To make a
        directory called program01 for this program, enter the
        command
mkdir program01

(b) Pull up a browser again. Find your way to the CSCE206 web page off the “Academics” and “Current class web pages” links.

(c) Click on “Tests and Assignments”

(d) Click on the “programming assignments” link.

(e) We will now work on programming assignment 1.

(f) Click on the “sample programs” link.

(g) Click on the first line that says sample01 program

(h) Now click on the “File” and “Save as” button and save this as a text file in the program01 directory. This will save the sample program.

(i) Now do the same thing for the sample01 makefile.

(j) This brings us to the ugly reality of Windows. The Microsoft browser is too stupid to understand that one might want to have control over the names of files, so it has saved the program with the file name helloworld_f90.txt and the makefile with the name makefile.txt.

(k) To see that the files are there, issue the command
ls *

to “list” the names of the files in the current directory.

(l) Now change the names of the files. Issue the commands

mv helloworld_f90.txt helloworld.f90

and then

mv makefile.txt makefile

and then issue the command

ls *

to see that the file names have changed.

(m) Go for it. Issue the command

make

and your program will be compiled. Issue the command

ls *

to see that you now have an executable file named helloworld.

(n) Execute the program by issuing the command

helloworld
11. The next several steps will have you edit the program, recompile it, and run the program again. You will replace my name with your name, and you will have the program compute the square root of 20.25 instead of the square root of 64.0.

(a) Invoke the vi editor by issuing the command

\[ \text{vi helloworld.f90} \]

(b) **Using the arrow keys and not the mouse**, move the cursor down to the beginning of my name.

(c) Type in “cw” followed by your name and then the **ES-Cape** key. (The “cw” stands for “change word”. This puts you into the mode of editing text. The **ES-Cape** key stops the entry of text.

(d) **Using the arrow keys and not the mouse**, move the cursor down to the beginning of the numerals 64.0.

(e) Type in a **CAPITAL “C”** followed by 20.25 and then the **ES-Cape** key. (The capital “C” means “change the text all the way to the end of the line.”)

(f) You have now edited the program as needed.
(g) Exit the editor by typing in “ZZ” (two capital letters “Z”).

(h) Recompile the program by issuing the command

   make

(i) Execute the program by issuing the command

   helloworld

(j) You should get your name instead of mine and a different square root.

12. The next several steps will get your new program put into your dropbox.

(a) Log in to the secure web site.

(b) Click on the dropbox center line.

(c) Find the link to the current assignment.

(d) Follow through on the “Download” option.