How to submit from outside the Prism lab

This course uses an automated system that checks your submitted work for correctness and coding style. The system is not currently compatible with the EECS Web Submit [https://webapp.eecs.yorku.ca/submit] system; thus, students must transfer their work to an EECS server and then remotely log in to the server to submit their work. This document describes the steps needed to submit work from outside the Prism lab.

Windows users

Windows does not provide an easy-to-use method for transferring files or for remotely logging in to a UNIX workstation. You will need to download and install software to provide these services.

Step 1

Download and install WinSCP [https://winscp.net/eng/download.php]. **WinSCP** is an open source free program that supports secure file transfer between two Internet connected computers.

Step 2

Download and install putty [https://www.chiark.greenend.org.uk/~sgtatham/putty/latest.html] (at the bottom of the linked page; it is easiest to use the PuTTY Installation package). **putty** is an open source free program that supports secure remote login to a host computer (among other things).

Step 3

Remote login to the EECS undergraduate server and create a directory for your submission files if you have not already done so in the past. Do this by running the **putty** program that you installed in Step 2. In the *Host Name (or IP address)* field enter the EECS undergraduate server name **red.cse.yorku.ca** and then click the *Open* button
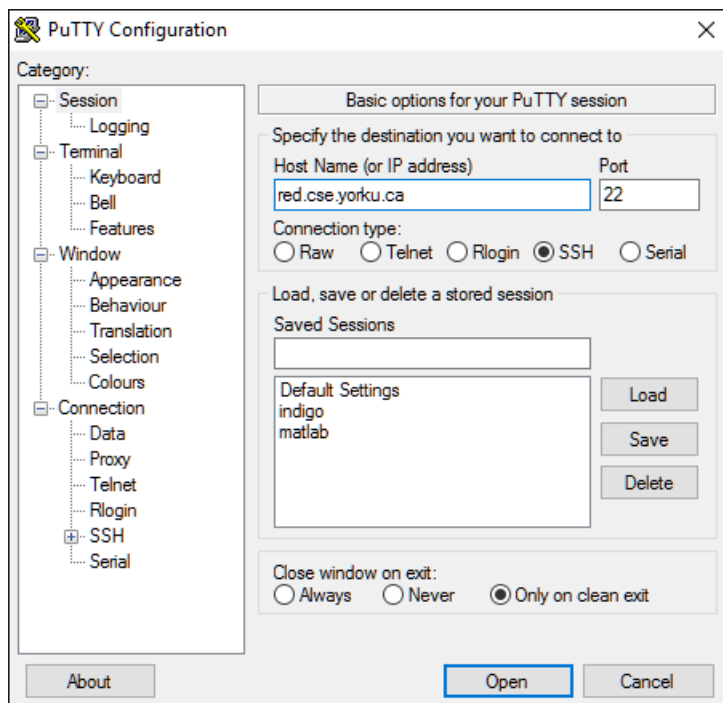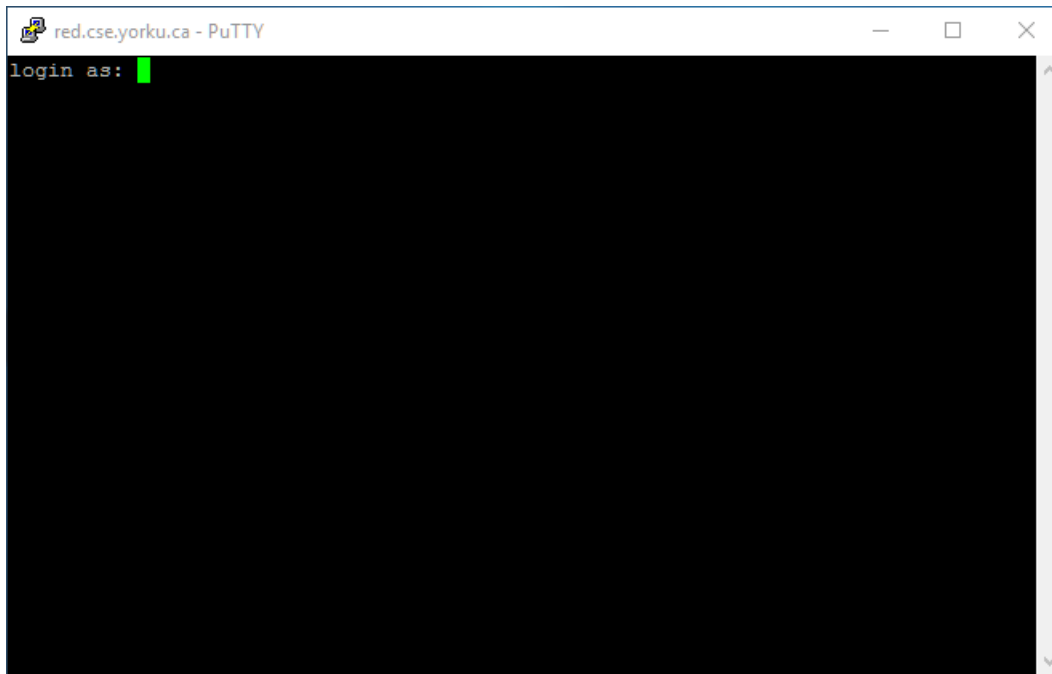

Step 4

You may get a warning window stating *"The server's host key is not cached in the registry."* This is to be expected if this is the first time that you have logged into **red.cse.yorku.ca** using **putty**. Click the *Yes* button to continue.

Step 5

You should see a login terminal appear:

Step 6

Type your EECS user name and press *Enter*. Type your EECS password and press *Enter*; **your password will not appear as you type it**.
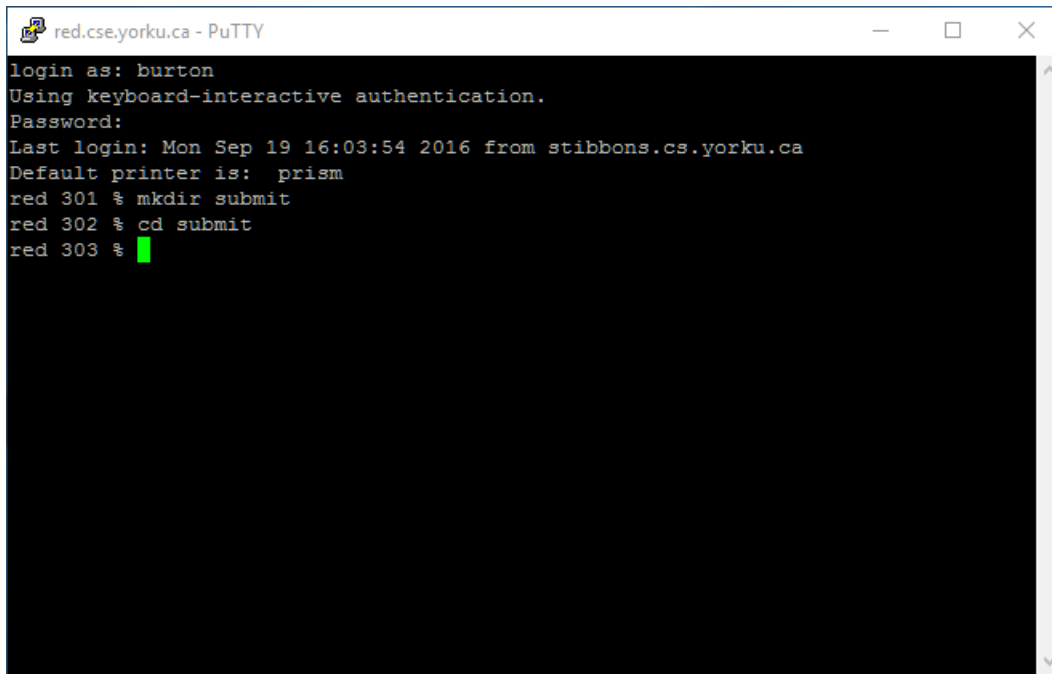

Step 7

To keep things organized, make a directory named submit and change to the newly created directory by typing the commands:

```
mkdir submit
cd submit
```

Do not close **putty**; you still need it to run the submit command.

Step 8

Transfer your files from your computer to the EECS undergraduate server. Do this by running the **WinSCP** program that you installed in Step 1. Enter the EECS undergraduate server name **red.cse.yorku.ca** as the *Host name*, type in your EECS user name and password, and press the *Login* button.
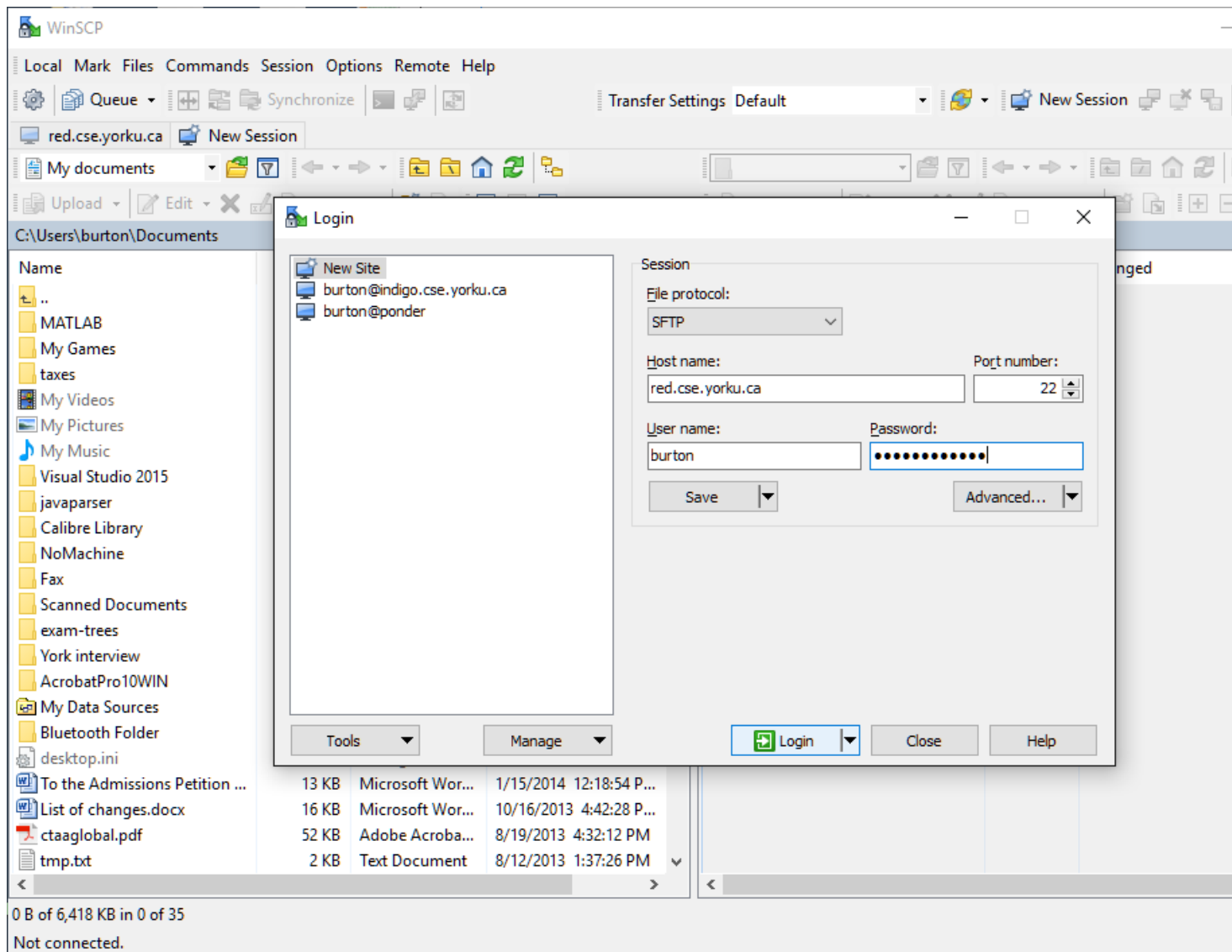
Step 9

You may get a warning window stating "*The server's host key was not found in the cache.*" This is to be expected if this is the first time that you have logged into **red.cse.yorku.ca** using **WinSCP**. Click the *Yes* button to continue.
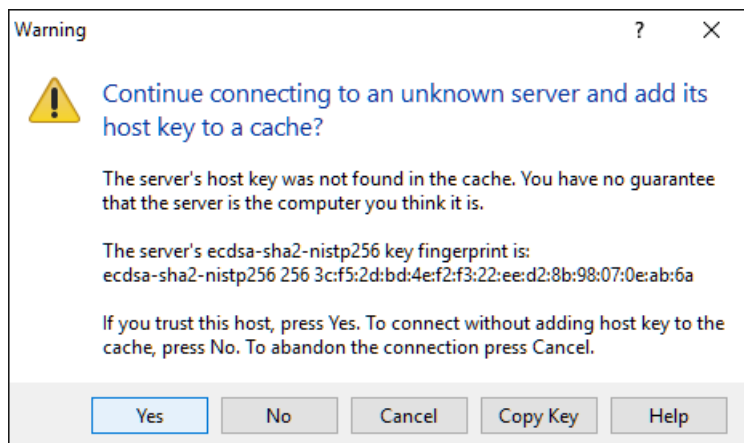
Step 10

When you successfully login, you should see the **WinSCP** program running as shown in the figure below. The left pane shows the file system of your computer, and the right pane shows the file system of the EECS undergraduate server.

Step 11

In the left pane, navigate to the folder containing your submission files using the *Open directory/bookmark* button. For eclipse users, you can find the folder holding your files using eclipse (in eclipse, open one of your submission files, click the *File* menu and select *Properties*).
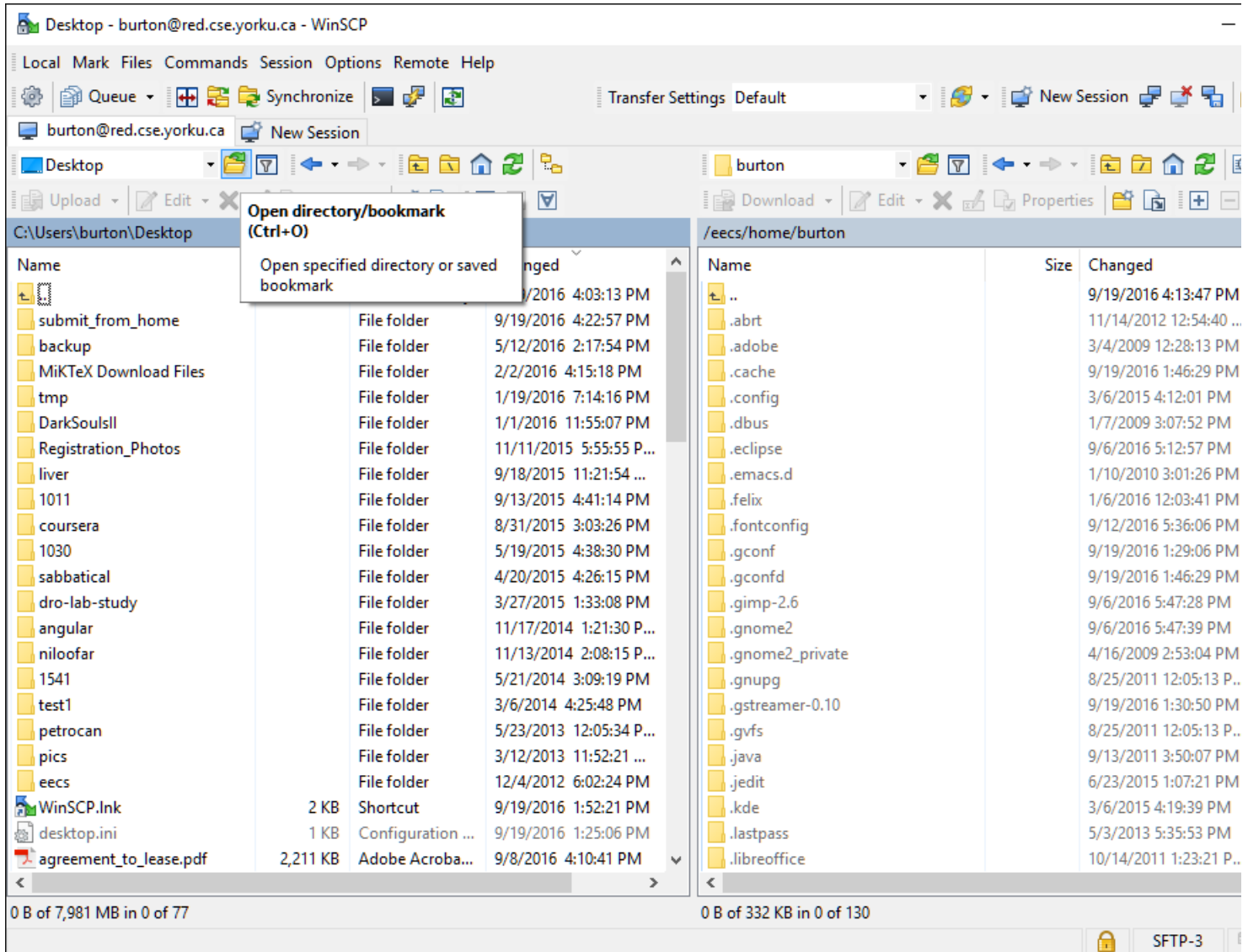
Step 12

In the figure below, you can see that I have successfully found the files that I want to submit in the left pane.

In the right pane, navigate to your **submit** directory that you created in Step 7.
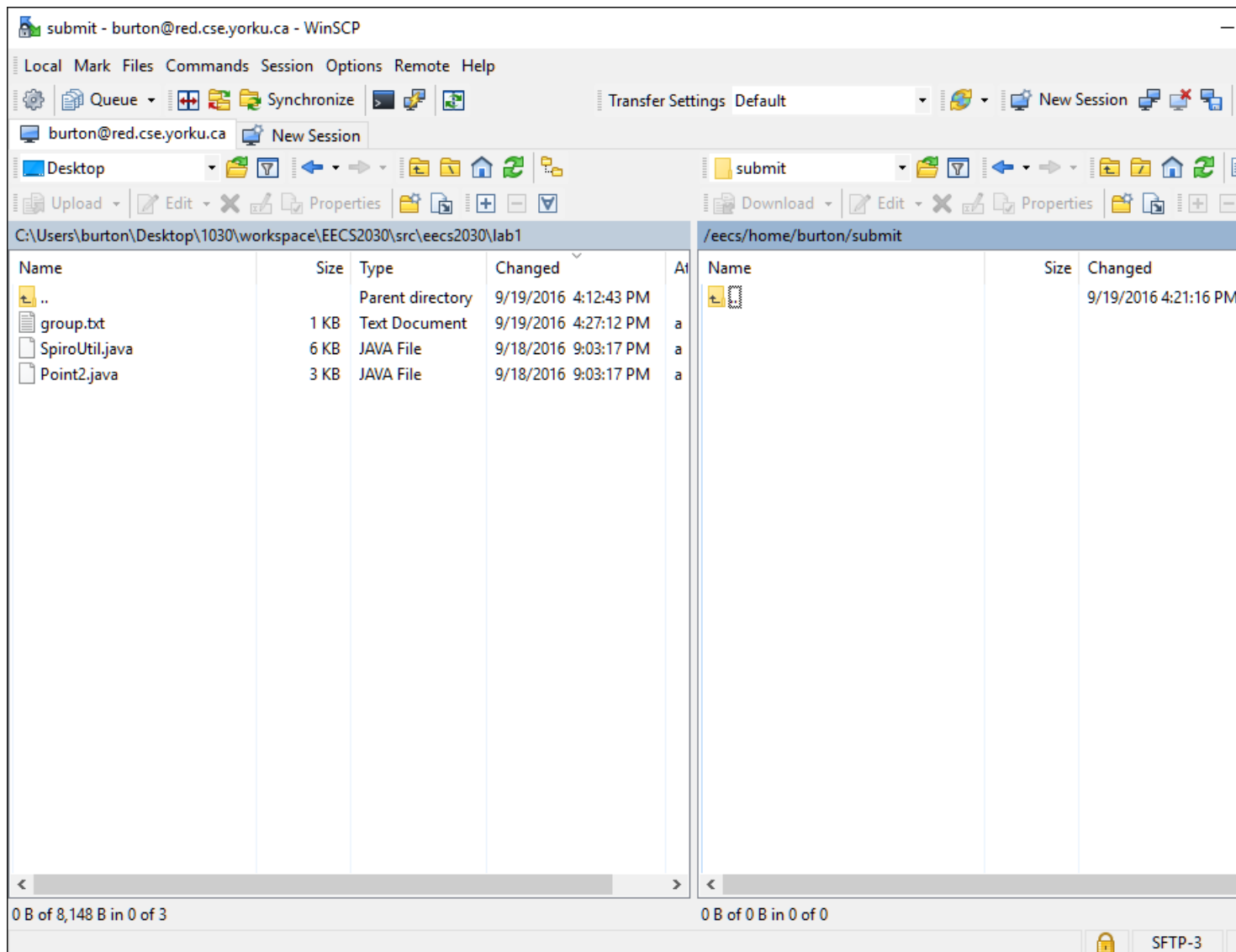
Step 13

In the left pane, select the files that you want to submit. In the figure below, you can see that I have selected three files to submit. Click the *Upload* button (highlighted in red in the figure below) to upload your files.
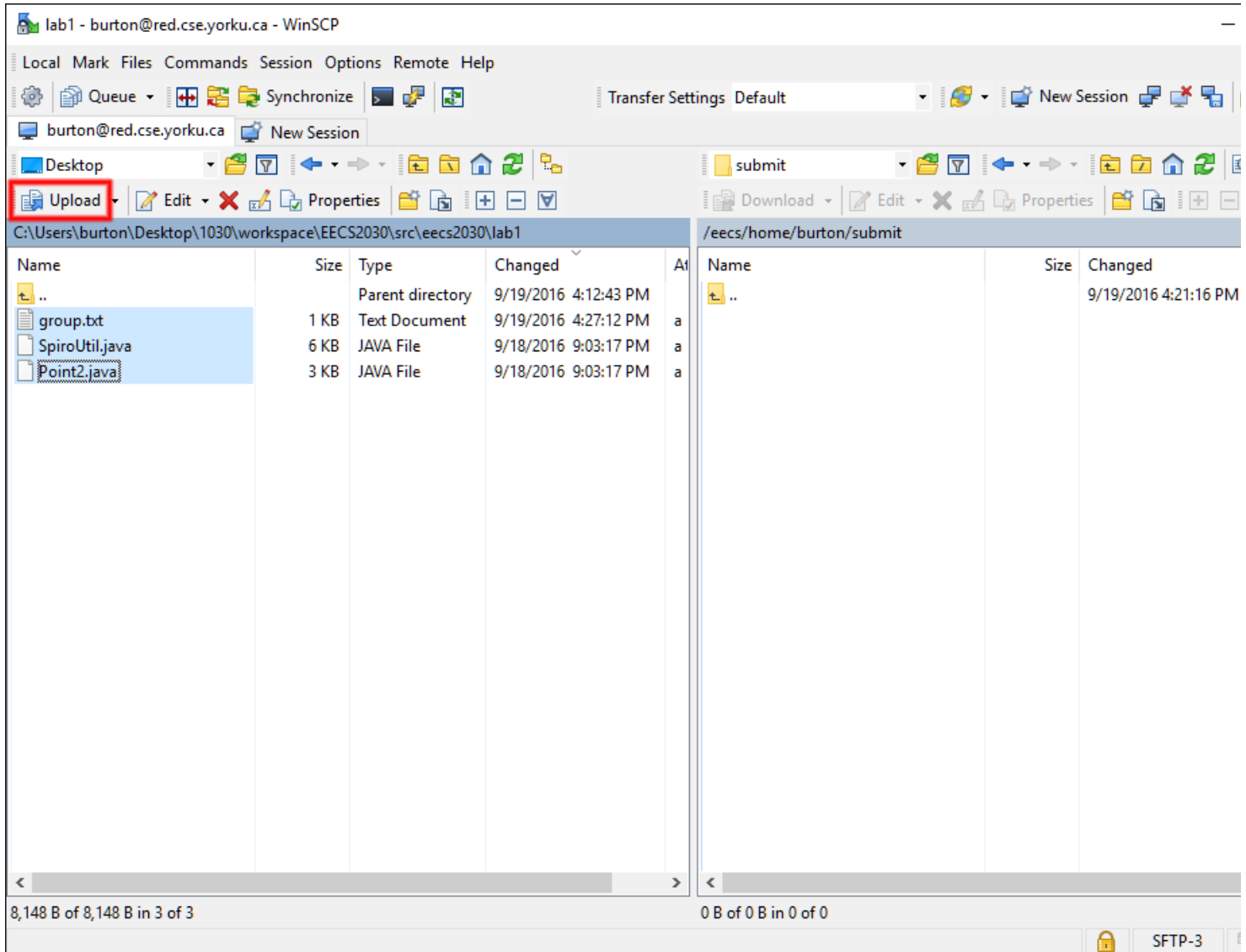
Step 14

When the upload is finished, you will see your files appear in your account on the EECS server in the right pane.
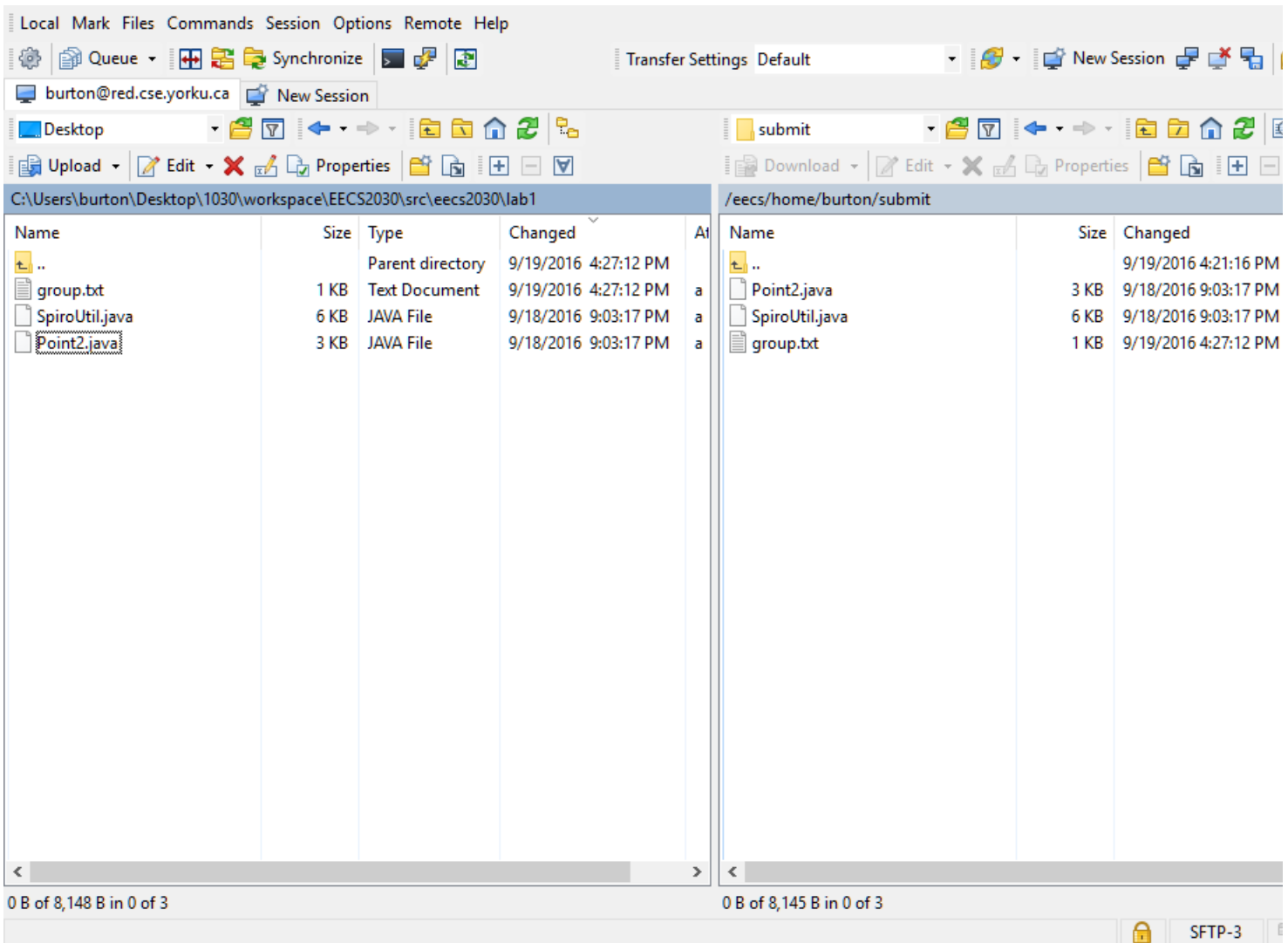
Step 15

In **putty** verify that your files have been successfully uploaded by listing the contents of the directory:

```
ls
```

Step 16

In **putty**, type in the submit command given to you by your instructor. For example, to submit lab1 for EECS2030 you might type:

```
submit 2030 lab1 Point2.java SpiroUtil.java group.txt
```

```
red.cse.yorku.ca - PuTTY                                    —    □    ×
login as: burton
Using keyboard-interactive authentication.
Password:
Last login: Mon Sep 19 16:03:54 2016 from stibbons.cs.yorku.ca
Default printer is:  prism
red 301 % mkdir submit
red 302 % cd submit
red 303 % ls
group.txt  Point2.java  SpiroUtil.java
red 304 % submit 2030 lab1 Point2.java SpiroUtil.java group.txt ▋
```

Step 17

Read the output of the submit command carefully. If there are errors with your submission you may be forced to re-submit your corrected work.
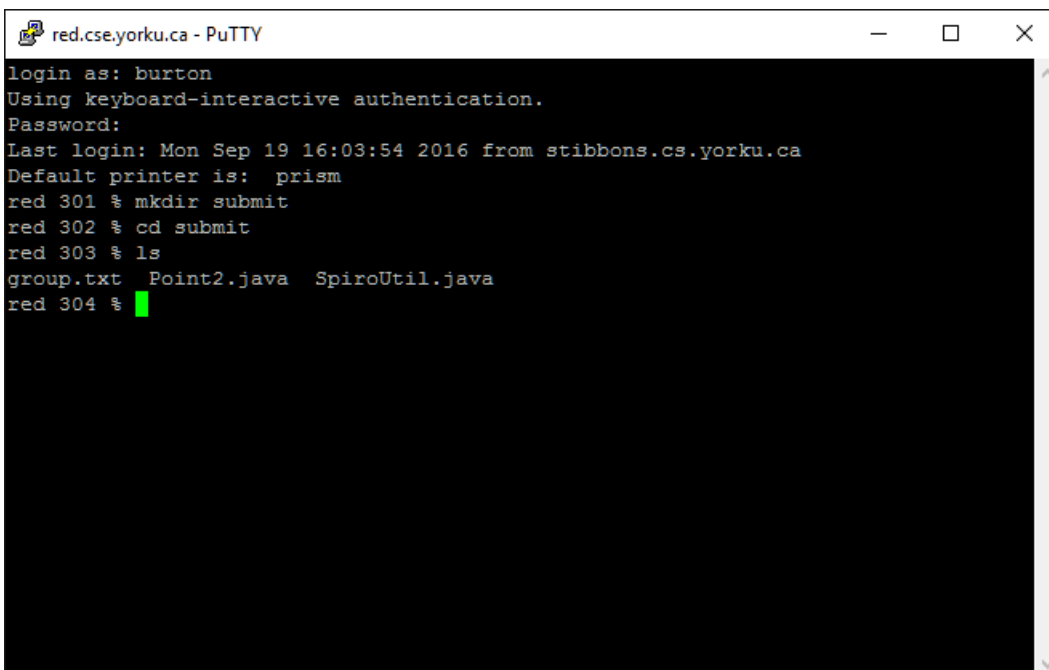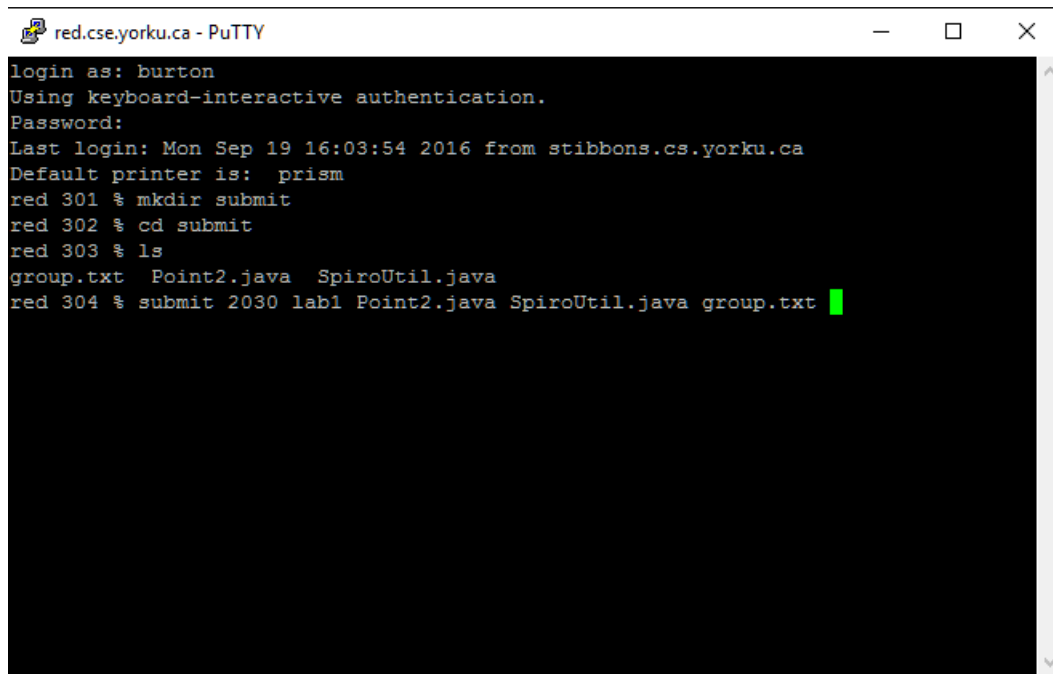
Step 18
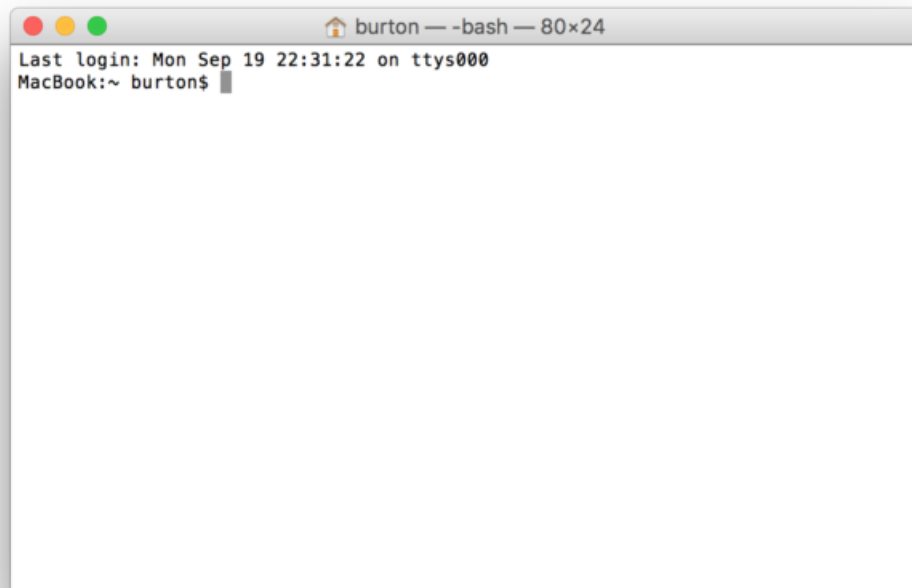
You may re-submit your work as many times as you like. Every time you make changes to your work on your computer, you must re-transfer your work using **WinSCP** and re-submit by typing in the submit command in **putty**.

Mac users

Mac OS provides a terminal program much like the terminal program that you use in the Prism labs. You can transfer your files and submit using the Mac terminal.

Step 1

In **Launchpad**, search for the **terminal** program, and start the **terminal** program. You will use this terminal to access files on your EECS account by logging into the EECS undergraduate server computer.

```
●●●                    🏠 burton — -bash — 80×24
Last login: Mon Sep 19 22:31:22 on ttys000
MacBook:~ burton$ █
```

Step 2
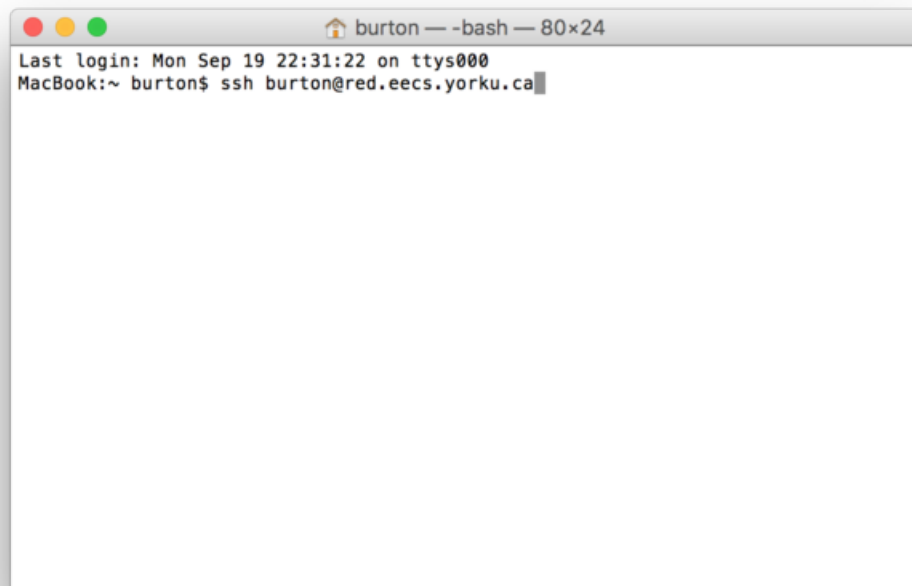
ssh (short for *secure shell*) is a program for logging into a remote computer and for executing commands on a remote computer.

Remotely log in to your EECS account using **ssh** by typing the following command and pressing *enter*:

```
ssh your_eecs_username@red.eecs.yorku.ca
```

You should replace `your_eecs_username` with your actual EECS user name. For example, if I wanted to remotely log in to my account I would type:

```
ssh burton@red.eecs.yorku.ca
```

```
●●●                    🏠 burton — -bash — 80×24
Last login: Mon Sep 19 22:31:22 on ttys000
MacBook:~ burton$ ssh burton@red.eecs.yorku.ca█
```
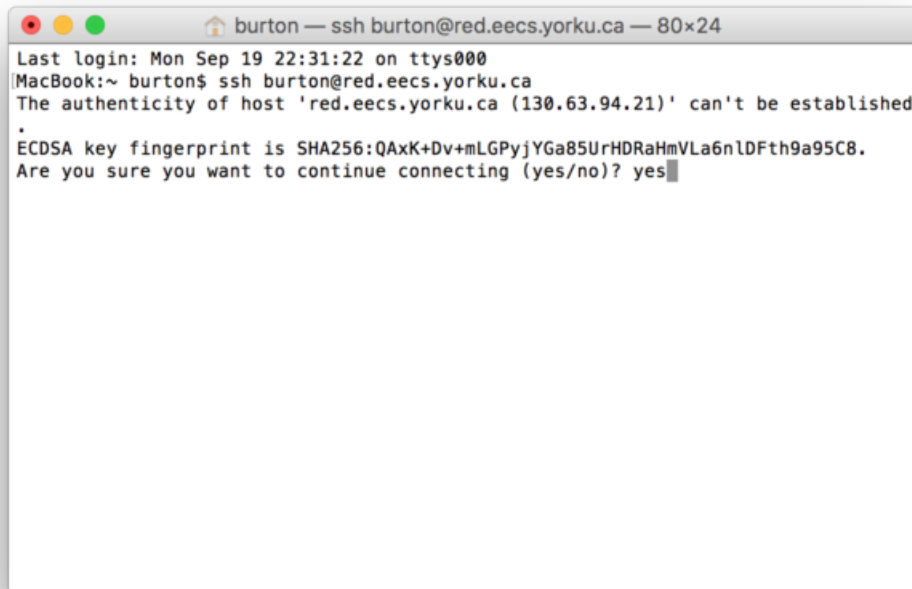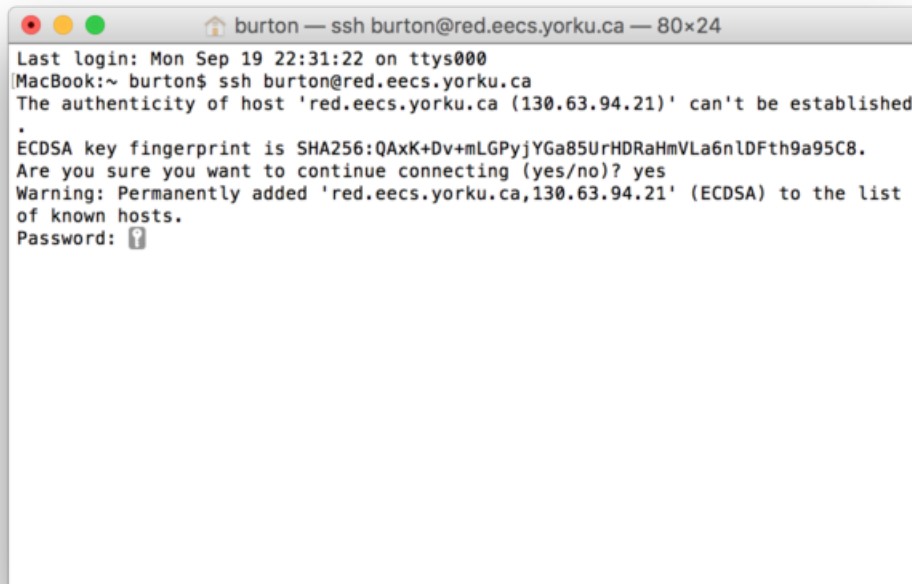
Step 3

If this is the first time that you have remotely logged in to the server, you will receive a warning message. Type `yes` and press *enter* to continue:

```
●  ●  ●              🏠 burton — ssh burton@red.eecs.yorku.ca — 80×24

Last login: Mon Sep 19 22:31:22 on ttys000
[MacBook:~ burton$ ssh burton@red.eecs.yorku.ca
The authenticity of host 'red.eecs.yorku.ca (130.63.94.21)' can't be established
.
ECDSA key fingerprint is SHA256:QAxK+Dv+mLGPyjYGa85UrHDRaHmVLa6nlDFth9a95C8.
Are you sure you want to continue connecting (yes/no)? yes▮
```

Step 4

Enter your password and press *enter* (your password will not appear as your type):

```
●  ●  ●              🏠 burton — ssh burton@red.eecs.yorku.ca — 80×24

Last login: Mon Sep 19 22:31:22 on ttys000
[MacBook:~ burton$ ssh burton@red.eecs.yorku.ca
The authenticity of host 'red.eecs.yorku.ca (130.63.94.21)' can't be established
.
ECDSA key fingerprint is SHA256:QAxK+Dv+mLGPyjYGa85UrHDRaHmVLa6nlDFth9a95C8.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added 'red.eecs.yorku.ca,130.63.94.21' (ECDSA) to the list
of known hosts.
Password: 🔒
```
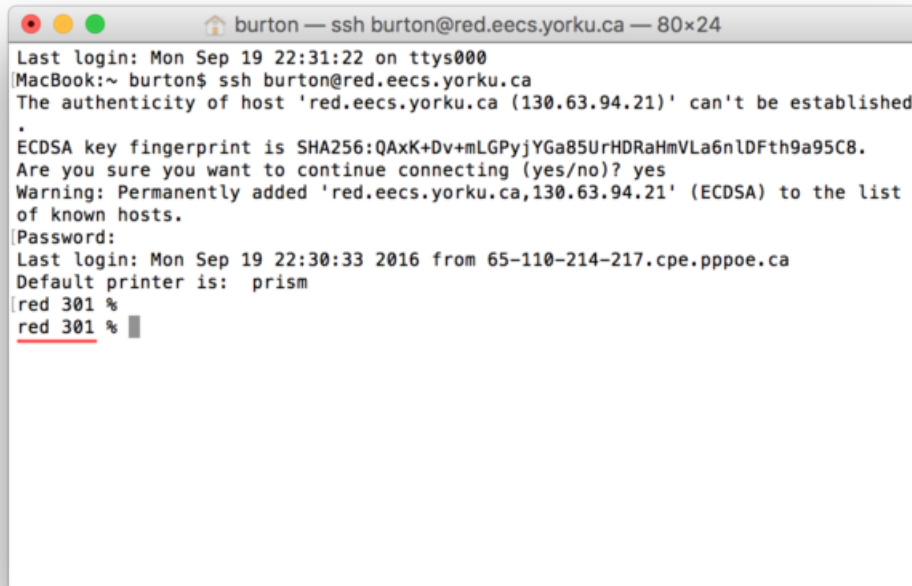
Step 5

You are now logged in to your EECS account. Notice that the prompt in your terminal has changed to **red** which is the name of the EECS server computer that you are currently logged in to.

Step 5
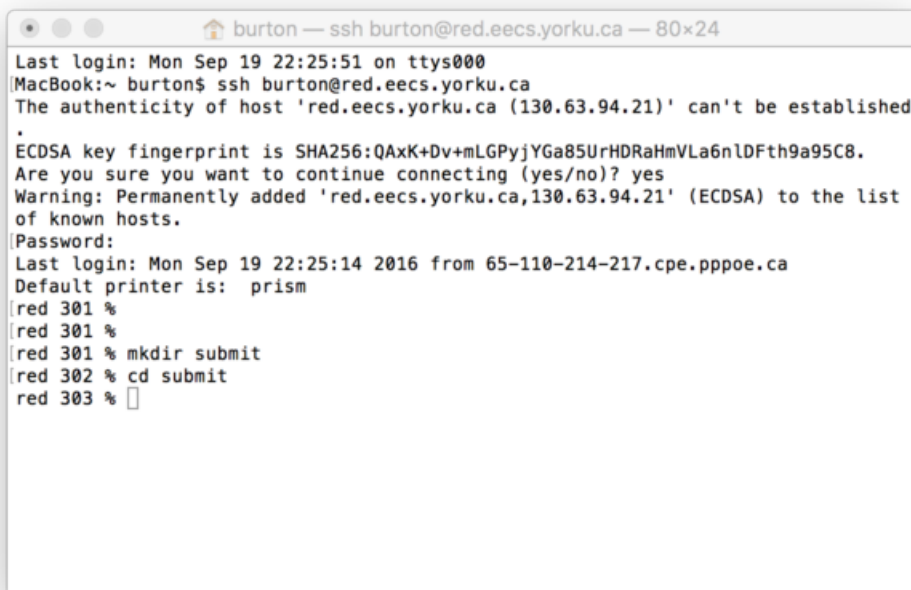
To keep things organized in your EECS account, you should create a directory for your submission files. Type in the following commands, pressing *enter* after each command (if you haven't already done this in the past):

```
mkdir submit
cd submit
```

This will create a directory named `submit` in your home directory of your EECS account, and then change to the newly created directory.

Step 6

Open a second **terminal** window (click on the *Shell* menu and click on *New Window*). You will use this terminal to access files on your computer.

```
●  ●  ●                 🏠 burton — -bash — 80×24
Last login: Mon Sep 19 22:16:50 on ttys001
MacBook:~ burton$ █
```
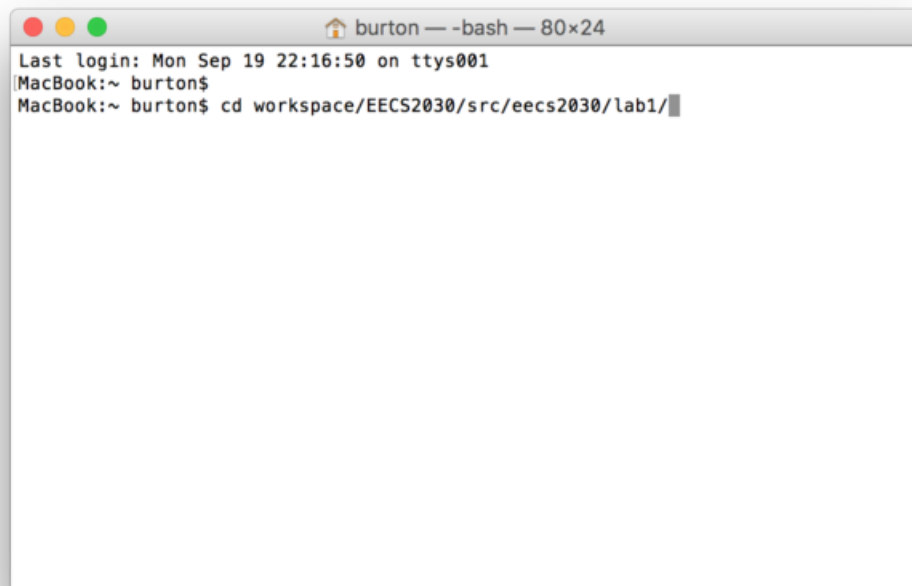
Step 7

Find the directory where your submission files are located. For eclipse users, you can find the directory holding your files using eclipse (in eclipse, open one of your submission files, click the *File* menu and select *Properties*).

Step 8

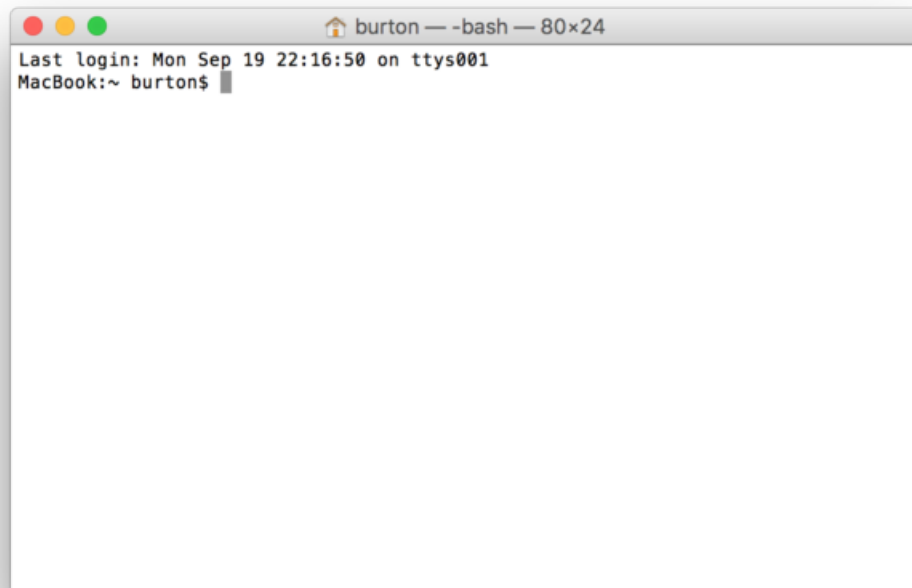Change to the directory on your computer where your submission files are located. For example, my files are located in the directory `workspace/EECS2030/src/eecs2030/lab1`. To change to that directory I would type the following command into the terminal and press *enter*:

```
cd workspace/EECS2030/src/eecs2030/lab1
```

```
●  ●  ●                 🏠 burton — -bash — 80×24
Last login: Mon Sep 19 22:16:50 on ttys001
[MacBook:~ burton$                                                      ]
MacBook:~ burton$ cd workspace/EECS2030/src/eecs2030/lab1/█
```

Step 9

List the contents of the directory by typing the following command into the terminal and press *enter*:

```
ls
```

In the figure below you can see that I have three files in the directory (`Point2.java`, `SpiroUtil.java`, and `group.txt`).

Step 10

Transfer your files to your `submit` directory on the EECS undergraduate server. If you want to transfer all of the files in the directory use the following command:

```
scp * your_eecs_username@red.eecs.yorku.ca:submit
```

Again, replace `your_eecs_username` with your actual EECS user name.

If you want to transfer specific files you can do so by transferring them one at a time; for example, I could transfer all three files individually by typing:

```
scp Point2.java burton@red.eecs.yorku.ca:submit
scp SpiroUtil.java burton@red.eecs.yorku.ca:submit
scp group.txt burton@red.eecs.yorku.ca:submit
```

Step 11

scp will prompt you for your EECS password; type it in and press *enter*.

Step 12

scp will transfer a copy of your files from your computer to your EECS account.

```
●  ●  ●                    📁 lab1 — -bash — 80×24
Last login: Mon Sep 19 22:16:50 on ttys001
[MacBook:~ burton$                                                    ]
[MacBook:~ burton$ cd workspace/EECS2030/src/eecs2030/lab1/           ]
[MacBook:lab1 burton$                                                 ]
[MacBook:lab1 burton$ ls                                              ]
 Point2.java     SpiroUtil.java  group.txt
[MacBook:lab1 burton$                                                 ]
[MacBook:lab1 burton$ scp * burton@red.eecs.yorku.ca:submit          ]
[Password:                                                            ]
 Point2.java                    100% 2317      2.3KB/s   00:00
 SpiroUtil.java                 100% 5807      5.7KB/s   00:00
 group.txt                      100%   22      0.0KB/s   00:00
 MacBook:lab1 burton$ ▊
```
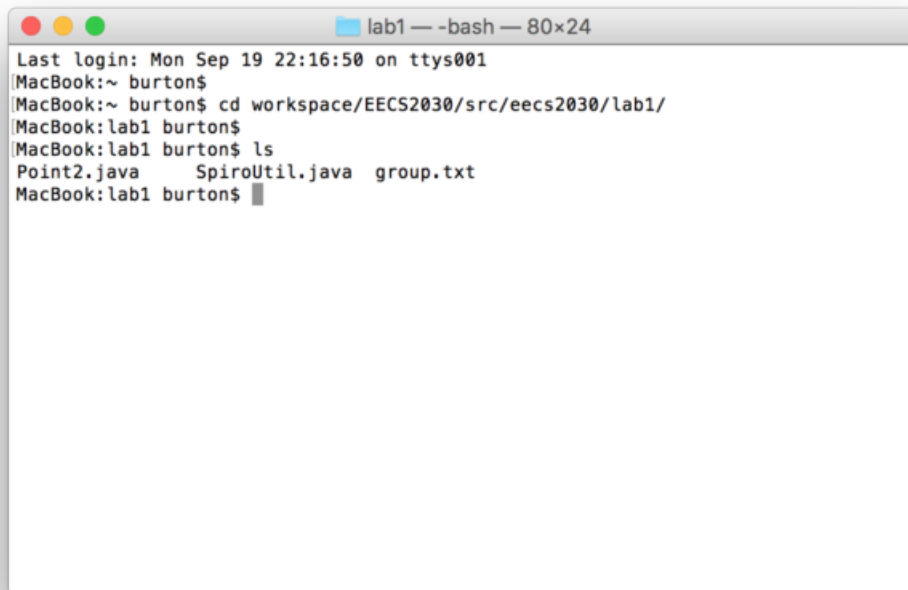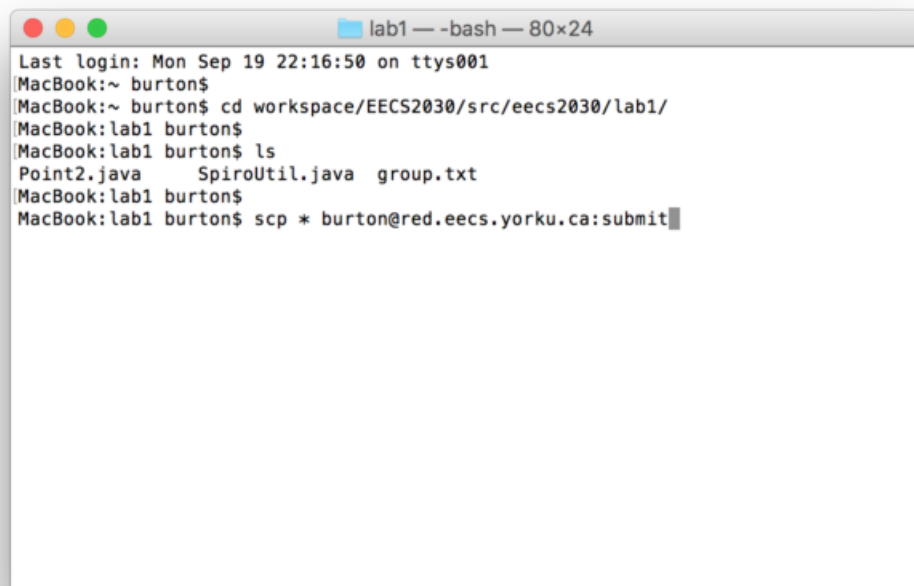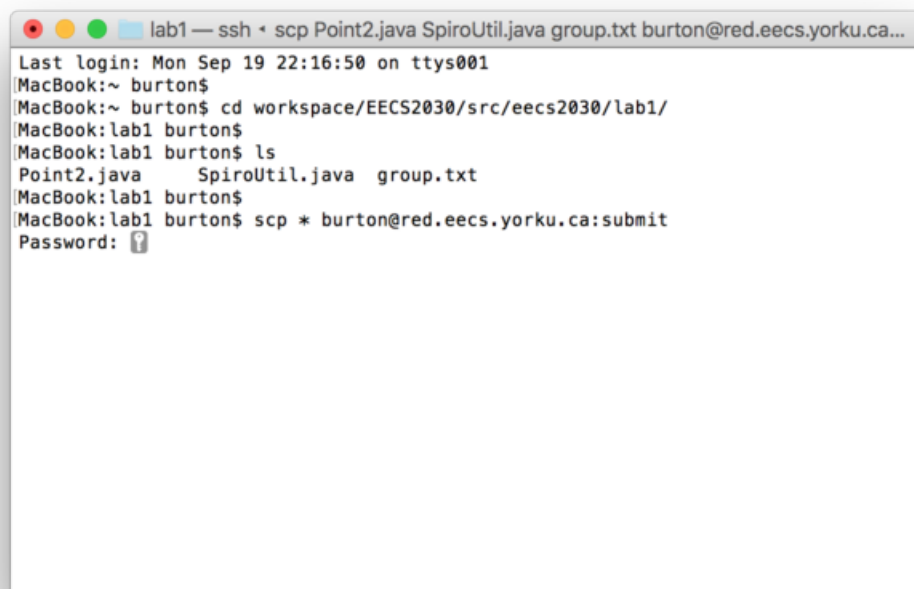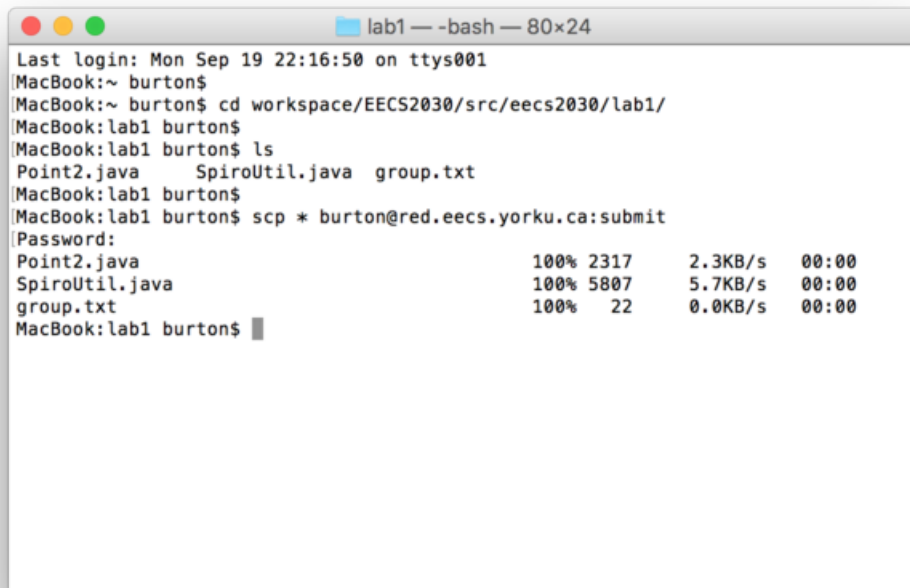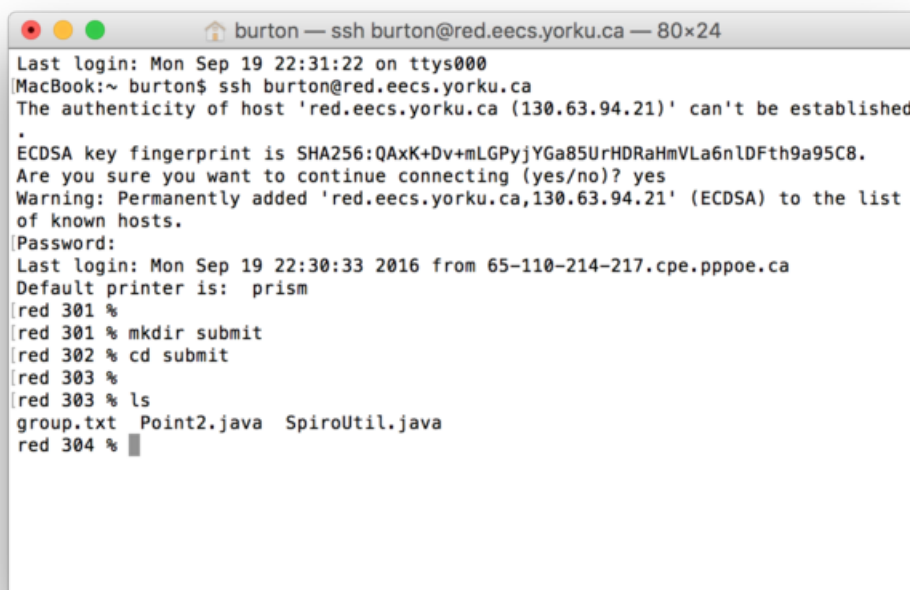
Step 13

Switch back to the first terminal window that you opened (the terminal where you are currently logged into **red**).

Make sure that your files have been transferred into your `submit` directory by typing the following command and press *enter*:

```
ls
```

In the figure below, you can see that the files `group.txt`, `Point2.java`, and `SpiroUtil.java` are now in the submit directory of my EECS account.

```
●  ●  ●              🏠 burton — ssh burton@red.eecs.yorku.ca — 80×24
Last login: Mon Sep 19 22:31:22 on ttys000
[MacBook:~ burton$ ssh burton@red.eecs.yorku.ca                      ]
 The authenticity of host 'red.eecs.yorku.ca (130.63.94.21)' can't be established
 .
 ECDSA key fingerprint is SHA256:QAxK+Dv+mLGPyjYGa85UrHDRaHmVLa6nlDFth9a95C8.
 Are you sure you want to continue connecting (yes/no)? yes
 Warning: Permanently added 'red.eecs.yorku.ca,130.63.94.21' (ECDSA) to the list
 of known hosts.
[Password:                                                            ]
 Last login: Mon Sep 19 22:30:33 2016 from 65-110-214-217.cpe.pppoe.ca
 Default printer is:  prism
[red 301 %                                                            ]
[red 301 % mkdir submit                                               ]
[red 302 % cd submit                                                  ]
[red 303 %                                                            ]
[red 303 % ls                                                         ]
 group.txt  Point2.java  SpiroUtil.java
 red 304 % ▊
```
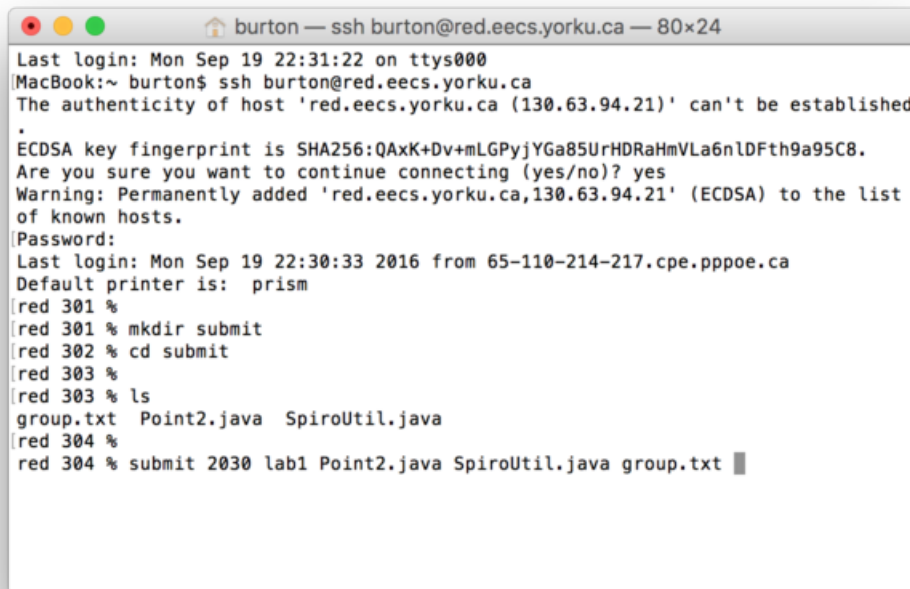
Step 14

Submit your files using the command provided by your instructor.

For example, to submit lab1 for EECS2030 you might type:

```
submit 2030 lab1 Point2.java SpiroUtil.java group.txt
```

```
                        burton — ssh burton@red.eecs.yorku.ca — 80×24
Last login: Mon Sep 19 22:31:22 on ttys000
MacBook:~ burton$ ssh burton@red.eecs.yorku.ca
The authenticity of host 'red.eecs.yorku.ca (130.63.94.21)' can't be established
.
ECDSA key fingerprint is SHA256:QAxK+Dv+mLGPyjYGa85UrHDRaHmVLa6nlDFth9a95C8.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added 'red.eecs.yorku.ca,130.63.94.21' (ECDSA) to the list
of known hosts.
Password:
Last login: Mon Sep 19 22:30:33 2016 from 65-110-214-217.cpe.pppoe.ca
Default printer is:  prism
[red 301 %
[red 301 % mkdir submit
[red 302 % cd submit
[red 303 %
[red 303 % ls
group.txt  Point2.java  SpiroUtil.java
[red 304 %
red 304 % submit 2030 lab1 Point2.java SpiroUtil.java group.txt ▌
```

Step 15

Read the output of the submit command carefully. If there are errors with your submission you may be forced to re-submit your corrected work.

Step 18

You may re-submit your work as many times as you like. Every time you make changes to your work on your computer, you must re-transfer your work using scp (using a terminal window on your computer) and re-submit by typing in the submit command (using a terminal window where you are logged into **red**).

Your remote login session ends automatically if you don't enter any commands for a certain period of time. If this happens, you will see a message that mentions a broken pipe and your terminal prompt will show the name of your computer (indicating that you are no longer remotely logged into **red**). If this happens, run the **ssh** program again to log back into **red**.