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CSE COURSE PROJECT SUBMISSION HANDOUT

THE STATE UNIVERSITY OF NEW YORK AT BUFFALO

This practical handout provides you with a comprehensive step-by-step guide on how to upload and submit your projects/files on UB CSE Student Servers [3]. The handout assumes that users run either of Windows, OSX (Mac OS), or Linux operating systems on their machines. It also assumes that machines that are going to be used to upload and submit files/projects are connected to Internet either on campus or off campus.

How to post my project?

In order to make your file/project visible and accessible to your CSE course instructors, you will have to go through three simple steps:

- 1. Connect to UB Wired/Wireless Secure Network**
- 2. Upload your file/project to CSE Student Servers**
- 3. Submit your file/project to your course directory on CSE Student Servers**

In this handout, we will elaborate on each of steps mentioned above one by one.

1. CONNECT TO UB SECURE NETWORK

You need Secure Internet connection! You may use either of shared desktop systems located in various UB halls (including Capen and Lockwood libraries) or your own desktop/laptop to upload and submit your project to CSE Student Servers. If you connect to internet On Campus, your connection will satisfy security requirements of CSE Student Servers. However, if you are Off Campus, you will first have to establish a Virtual Private Network (VPN) between your machine and UB Network. In that case, whatever goes between your computer and UB CSE server is encrypted and secured. Please note that, servers like Timberlake block inbound packet stream if the source IP Address does not exist in UB IP Address Pool.

I do access Internet On Campus, do I pass the security requirement?

Yes. All the shared desktop systems throughout UB campuses are connected to UB Secure Network. There are several wireless networks available, like UB_Secure, UB_Connect, eduroam, etc. However, it is recommended to use UB_Secure Wifi.

I do access Internet from Off Campus, how to secure my connection?

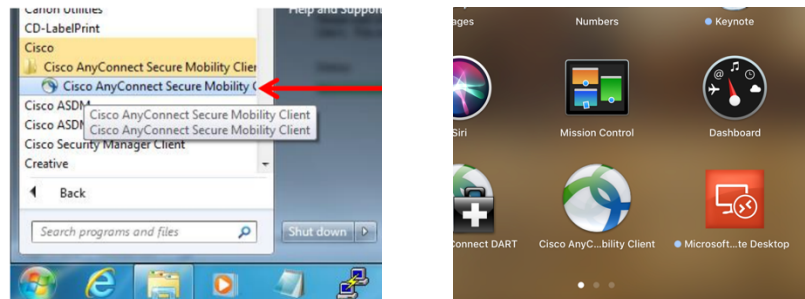
You need to establish Virtual Private Network (VPN) to make a secure connection. Based on the operating system your machine is running, download and install required tools for establishing a VPN connection. To do so, please follow the following instructions:

- **Windows/ Mac-OS Users**

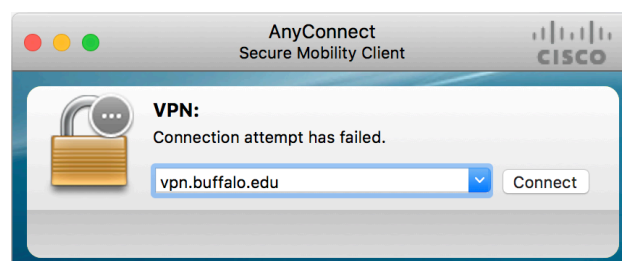
- 1- For Windows OS, go to <https://www.buffalo.edu/ubit/service-guides/software/downloading/windows-software/managing-your-software/anyconnect.html>.

For Mac-OS, go to <https://www.buffalo.edu/ubit/service-guides/software/downloading/macintosh-software/managing-mac-software/anyconnect.html>.

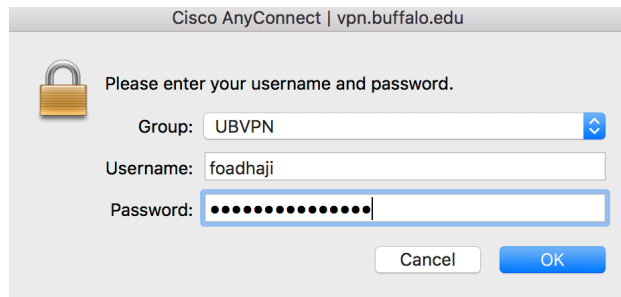
- 2- Download Cisco AnyConnect software using your UBIT account information.
- 3- Install the software on your machine:
 - Click on **Next** on the Welcome screen.
 - Click on the bubble beside **I accept the terms in the License Agreement**.
 - Click **Next** on the End-User License Agreement screen.
 - Click **Install** on the Ready to Install screen.
 - Depending on your computer's security level you may be prompted by Windows to allow the AnyConnect client to change your PC. **Accept the prompt** to continue.
 - Click **Finish** to complete the installation.
- 4- Run the Cisco AnyConnect software and configure the VPN connection:
 - To run the application, search for Cisco AnyConnect in the search dialog box.



- Enter VPN address: **vpn.buffalo.edu** , and press **connect**.



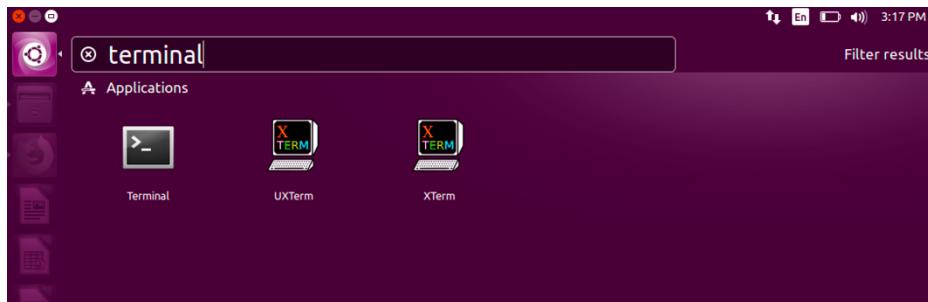
- Enter your **UBITName** and **Password**, and press **OK**.



- Click Accept button in the prompted window.
- In case of a successful connection, you will see Cisco AnyConnect icon with a lock on it in your system tray:

• Linux Users

- 1- Launch Terminal application. You may use search dialog box to find Terminal:



- 2- Install OpenConnect software via this command:

```
sudo apt-get install openconnect
```

- 3- To establish a VPN connection, type the following command:

```
echo -n YOUR_UBITPASSWORD | sudo openconnect -u YOUR_UBIT_NAME --passwd-on-stdin ubvpn.buffalo.edu
```

Replace **YOUR_UBIT_NAME** with your actual UBITName. Replace **YOUR_UBITPASSWORD** with your actual UBIT Password.

- 4- Once you hit the Enter, your VPN connection will be established.

*NOTE: Cisco AnyConnect software is available for **Linux** operating system as well. To download, please go to this page, <https://www.buffalo.edu/ubit/service-guides/software/downloading/linux-software/anyconnect.html>, and follow the instruction as described for Windows Users.*

2. UPLOAD YOUR FILE/PROJECT

Once you connect to UB Secure Network, you will be ready to upload your file/project to desired CSE Student Server. This step puts your file in your own directory on server, which will be used to submit in next step.

NOTE: Before you proceed, make sure you have access permission to CSE Student Servers for project submission purpose. If you do need permission, contact CSE Consult.

You can see the list of CSE Servers on [3]. Timberlake server is one of most popular servers we are going to use in our examples in this handout.

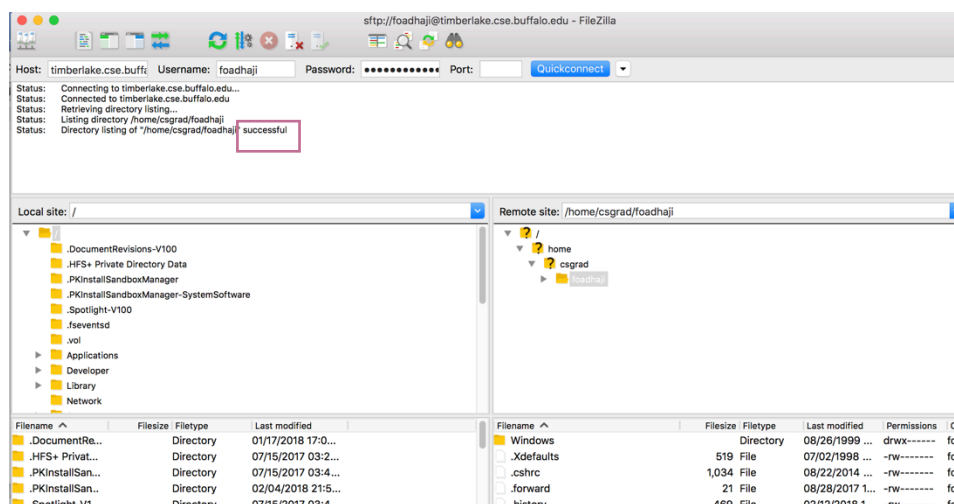
There are multiple ways which enable you to transfer your file to CSE Student Servers. These solutions are either based on Graphical User Interface or GUI (e.g., FileZilla software) or Command-line tools (e.g., Terminal). According to the operating system your machine runs, go through the following steps to upload your file/project:

NOTE: You should take only one of the following three options to upload your file/project.

• Option 1: Windows/Mac-OS/ Linux Users

- 1- Go to <https://filezilla-project.org/download.php>, download and install FileZilla software. Installation is so simple, just follow on-screen instructions. For Installation guide, please see https://wiki.filezilla-project.org/Client_Installation.
- 2- Run FileZilla software.
- 3- Under the navigation bar, you will find these four boxes: "Host", "User Name", "Password", and "Port". Input required information as follows and press **Quickconnect** button:

- Host: **timberlake.cse.buffalo.edu**
- User Name: **Your UBITName**
- Password: **Your UBIT Password**
- Port: **22**



- 4- In case of successful connection, you will be prompted in the log status box (see image). Now, you can see your own directory on the right (remote site), and your local machine directory on the left (local site). From the local site navigator, simply locate your file and upload to your directory on the remote site (drag-and-drop also works!). Remember the path of your file which is shown in Remote Site address bar. In our example:

`/home/csegrad/foadhaji/MY_PROJECT.zip`

This address will be used later to submit your file/project to your course directory.

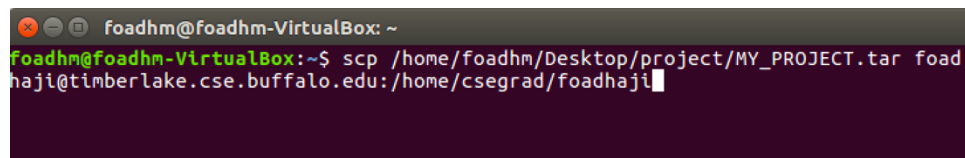
• Option 2: Mac-OS/ Linux Users

NOTE: This option is based on command-line tool and requires you to know the path of directory to which you are going to upload your file/project. Option 1 is recommended, if you have no idea about this path.

- 1- Launch the Terminal application located inside Launchpad/Other (for Mac) or just simply search Terminal in your machine.
- 2- Type the following SCP command in Terminal:

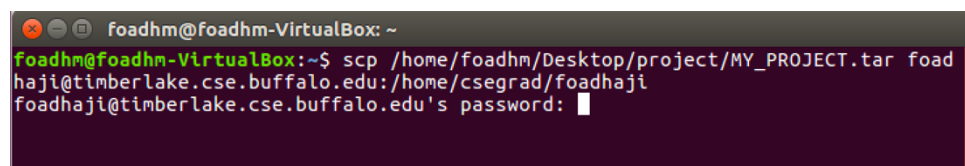
```
Scp LOCAL_PATH YOUR_UBITName@timberlake.cse.buffalo.edu:/ REMOTE_PATH
```

Replace `LOCAL_PATH` with the path of your file/project on your host, replace `YOUR_UBITName` with your actual UBITName, replace `REMOTE_PATH` with the directory path to which you are uploading your file/project (it should be your own directory). Hit Enter.



```
foadhm@foadhm-VirtualBox: ~  
foadhm@foadhm-VirtualBox:~$ scp /home/foadhm/Desktop/project/MY_PROJECT.tar foad  
haji@timberlake.cse.buffalo.edu:/home/csegrad/foadhaji
```

- 3- Enter your UBIT Password and press Enter.



```
foadhm@foadhm-VirtualBox: ~  
foadhm@foadhm-VirtualBox:~$ scp /home/foadhm/Desktop/project/MY_PROJECT.tar foad  
haji@timberlake.cse.buffalo.edu:/home/csegrad/foadhaji  
foadhaji@timberlake.cse.buffalo.edu's password:
```

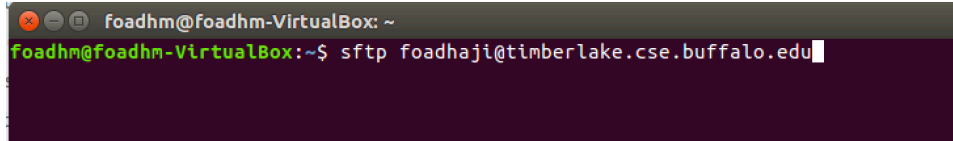
- 4- In case of successful transfer, you will be prompted with successful transmission.

• Option 3: Mac-OS/ Linux Users

- 1- Launch the Terminal application located inside Launchpad/Other (for Mac) or just simply search Terminal in your machine.
- 2- Type the following SCP command in Terminal:

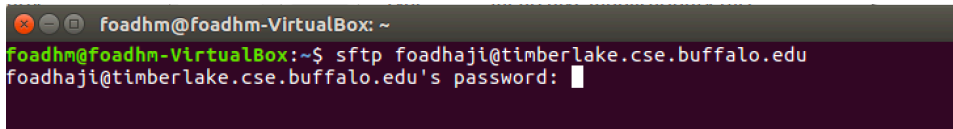
```
Sftp YOUR_UBITName@timberlake.cse.buffalo.edu
```

Replace `YOUR_UBITName` with your actual UBITName and hit Enter.



```
foadhm@foadhm-VirtualBox: ~  
foadhm@foadhm-VirtualBox:~$ sftp foadhaji@timberlake.cse.buffalo.edu
```

- 3- Enter your UBIT Password and press Enter.

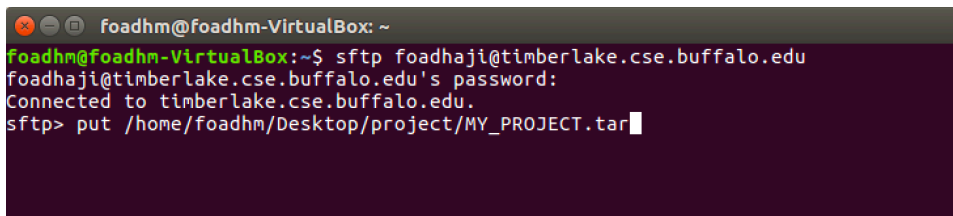


```
foadhm@foadhm-VirtualBox: ~  
foadhm@foadhm-VirtualBox:~$ sftp foadhaji@timberlake.cse.buffalo.edu  
foadhaji@timberlake.cse.buffalo.edu's password:
```

- 4- Enter the following command.

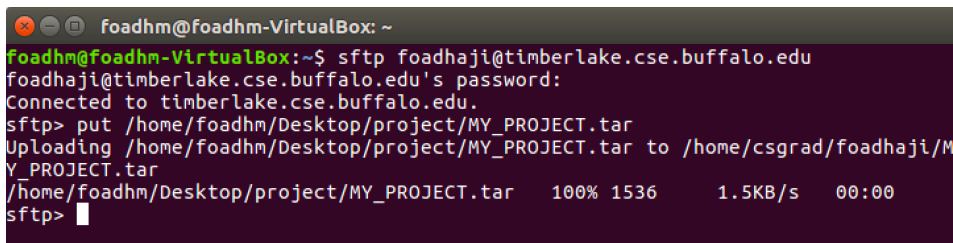
```
put LOCAL_PATH
```

Replace `LOCAL_PATH` with the actual path of your file/project in your machine. Press Enter.



```
foadhm@foadhm-VirtualBox: ~  
foadhm@foadhm-VirtualBox:~$ sftp foadhaji@timberlake.cse.buffalo.edu  
foadhaji@timberlake.cse.buffalo.edu's password:  
Connected to timberlake.cse.buffalo.edu.  
sftp> put /home/foadhm/Desktop/project/MY_PROJECT.tar
```

- 5- In case of successful transfer, you will be prompted with 100% successful transmission.



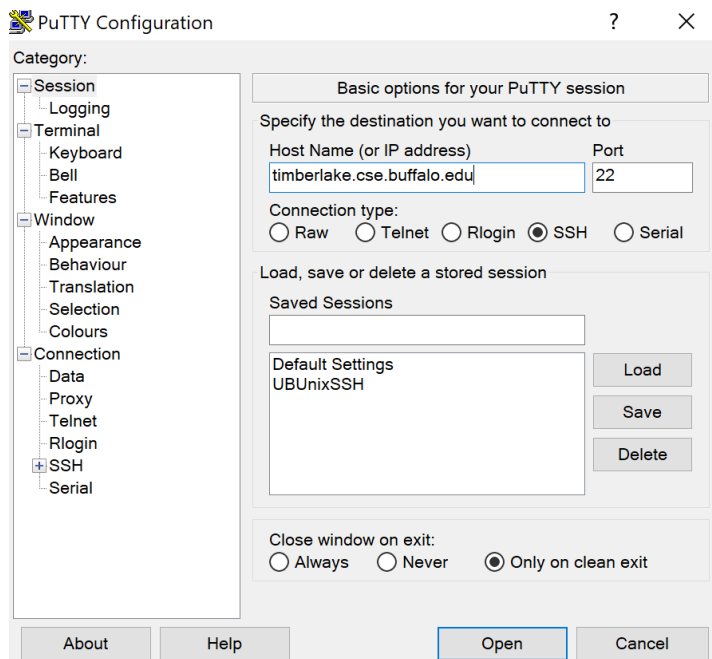
```
foadhm@foadhm-VirtualBox: ~  
foadhm@foadhm-VirtualBox:~$ sftp foadhaji@timberlake.cse.buffalo.edu  
foadhaji@timberlake.cse.buffalo.edu's password:  
Connected to timberlake.cse.buffalo.edu.  
sftp> put /home/foadhm/Desktop/project/MY_PROJECT.tar  
Uploading /home/foadhm/Desktop/project/MY_PROJECT.tar to /home/csgrad/foadhaji/MY_PROJECT.tar  
/home/foadhm/Desktop/project/MY_PROJECT.tar 100% 1536 1.5KB/s 00:00  
sftp>
```

3. SUBMIT YOUR PROJECT

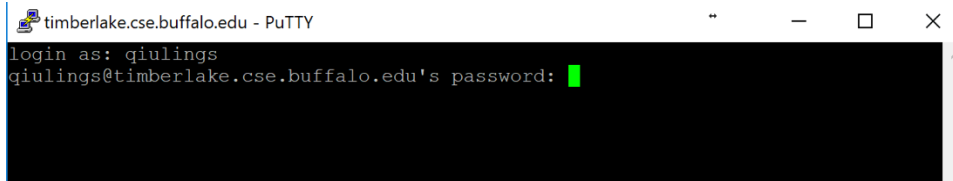
When you successfully pass STEP 2 and you upload your file/project, you will be ready to submit your file to the directory associated with your course. This procedure will make your file/project visible and accessible to the instructors of that course. According to your machine's operation system you will have to go through one of the following instructions for submission.

• Windows Users

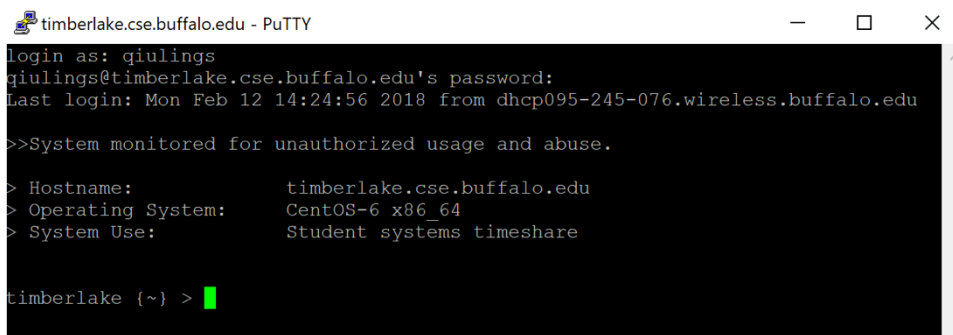
1. We suppose that you are asked to submit your project to CSE Timberlake server (See the list of CSE student servers in <https://wiki.cse.buffalo.edu/services/content/student-servers>). To submit your file to Timberlake server, you first need to connect to UB Secure Network:
 - On Campus: Simply connect to UB_Secure WiFi. See <https://www.buffalo.edu/ubit/service-guides/connecting/wifi.html>.
 - Off Campus: Stablish a VPN connection to UB CSE Network using Cisco AnyConnect (see Section 1, Connect to UB Secure Network)
2. Go to <https://www.buffalo.edu/ubit/service-guides/software/downloading/windows-software/managing-your-software/putty.html> and download PuTTY software (you will be asked to input your UBITName and Password).
3. Locate the .exe installation file and install PuTTY software.
4. Lunch the PuTTY.
5. In the Host Name field, enter **timberlake.cse.buffalo.edu** and fill in the Port field with port number **22** to which your application needs to connect:



6. Press Open button to initiate the connection.
7. Click **Yes** button in the prompted window. (first time users)
8. Enter your **UBITName** and hit Enter.
9. Enter your **UBIT Password** and hit enter.



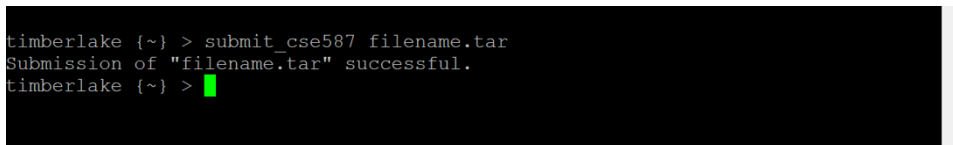
10. You will be brought to the Timberlake command-line server.



11. Using the course number (for example **cse587**) and the path in which your project/file is located (if you don't know where it is, or haven't uploaded your file, see section 2), you will be able to submit your project via **submit** command.

Submit_cse# PATH-OF-YOUR-FILE

Replace **#** with your course number, and replace **PATH-OF-YOUR-FILE** with the actual path of your file/project in your machine. Press enter, you will get **submission successful** if your file is successfully submitted to Timberlake server, like this:



You are all set!

For more information on submit script, please see [1].

• Mac-OS Users

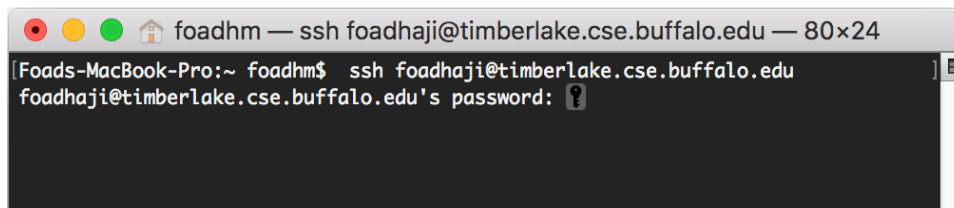
1. We suppose that you are asked to submit your project to CSE Timberlake server (See the list of CSE student servers in <https://wiki.cse.buffalo.edu/services/content/student-servers>). To submit your file to Timberlake server, you first need to connect to UB Secure Network:

- On Campus: Simply connect to UB_Secure WiFi. See <https://www.buffalo.edu/ubit/service-guides/connecting/wifi.html>.
 - Off Campus: Establish a VPN connection to UB CSE Network using Cisco AnyConnect (see Section 1).
2. Launch the Terminal application located inside Launchpad/Other or just simply press Command+Space and search Terminal.
 3. Type the following command and replace Your_UBITName with your actual UBIT Name and change server name if you need to do so.

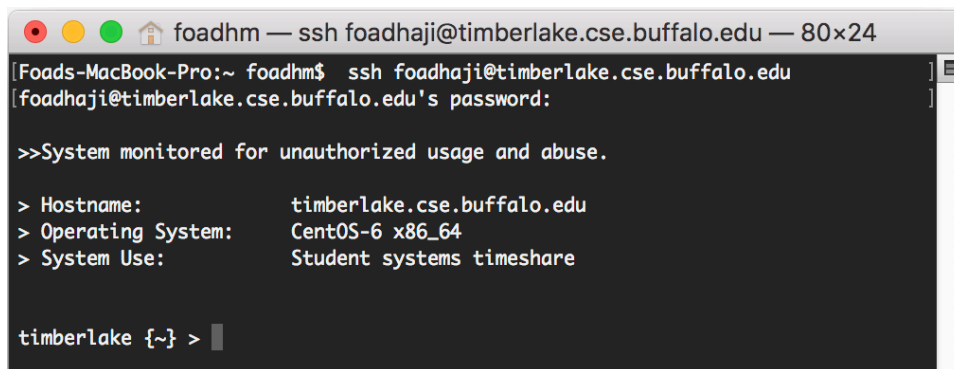
```
ssh Your_UBITName@timberlake.cse.buffalo.edu
```



4. Hit Enter and type your UBIT password (hit enter again!):



5. You will be connected to Timberlake server (make sure you are brought to `timberlake {~} >` like the following image):



- 6.
7. Using the course number (for example cse587) and the path in which your project/file is located (if you don't know where it is, or haven't uploaded your file, see section 2), you will be able to submit your project via `submit` command.

```
Submit_cse# PATH-OF-YOUR-FILE
```

Replace `#` with your course number, and replace `PATH-OF-YOUR-FILE` with the actual path of your file/project in your machine:

```
timberlake {~} >
timberlake {~} > submit_cse587 /home/csgrad/foadhaji/MY_PROJECT.zip
```

8. Hit the Enter, you will get `submission successful` if your file is successfully submitted to Timberlake server, like this:

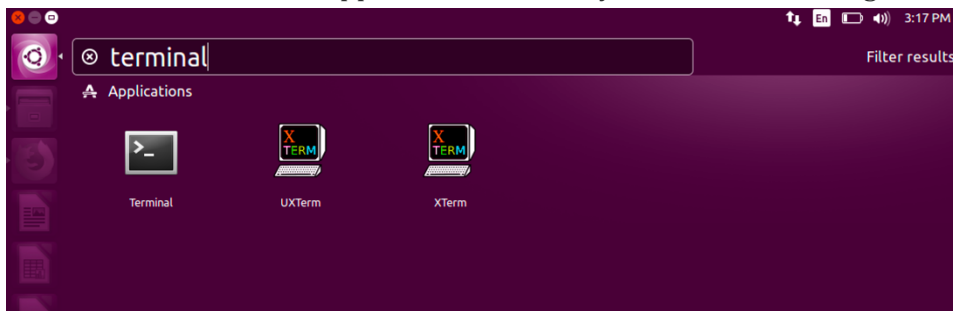
```
timberlake {~} > submit_cse587 /home/csgrad/foadhaji/MY_PROJECT.zip
Submission of "/home/csgrad/foadhaji/MY_PROJECT.zip" successful.
timberlake {~} >
```

You are all set!

For more information on submit script, please see [1].

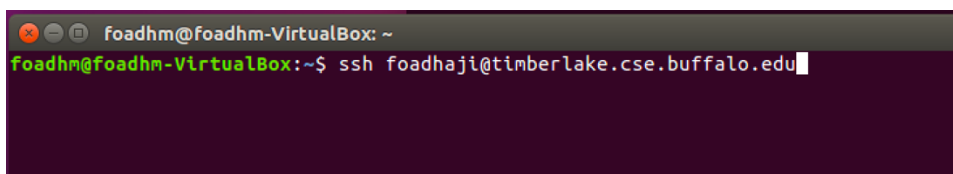
• Linux Users

1. We suppose that you are asked to submit your project to CSE Timberlake server (See the list of CSE student servers in <https://wiki.cse.buffalo.edu/services/content/student-servers>). To submit your file to Timberlake server, you first need to connect to UB Secure Network:
 - On Campus: Simply connect to UB_Secure WiFi. See <https://www.buffalo.edu/ubit/service-guides/connecting/wifi.html>.
 - Off Campus: Stablish a VPN connection to UB CSE Network using Openconnect software (see Section 1).
2. Lunch the Terminal application. You may use search dialog box to find terminal:



3. Type the following command and replace Your_UBITName with your actual UBIT Name and change server name if you need to submit your file to any other CSE server.

```
ssh Your_UBITName@timberlake.cse.buffalo.edu
```



4. If you are prompted by authenticity warning, just continue by typing “yes”, if you are not, skip this step:

```
foadh@foadh-VirtualBox: ~  
foadh@foadh-VirtualBox:~$ ssh foadhaji@timberlake.cse.buffalo.edu  
The authenticity of host 'timberlake.cse.buffalo.edu (128.205.36.8)' can't be es  
tablished.  
RSA key fingerprint is SHA256:szYczydsgeZ1bP8q/qHK3Rz2A/ZANG29oQeVZPQqJVK.  
Are you sure you want to continue connecting (yes/no)?
```

5. Enter your UBIT password and hit Enter:

```
foadh@foadh-VirtualBox:~$ ssh foadhaji@timberlake.cse.buffalo.edu  
foadhaji@timberlake.cse.buffalo.edu's password:
```

6. You will be connected to Timberlake server (make sure you are brought to `timberlake {~} >` like the following image)

```
foadh@foadh-VirtualBox: ~  
foadh@foadh-VirtualBox:~$ ssh foadhaji@timberlake.cse.buffalo.edu  
The authenticity of host 'timberlake.cse.buffalo.edu (128.205.36.8)' can't be es  
tablished.  
RSA key fingerprint is SHA256:szYczydsgeZ1bP8q/qHK3Rz2A/ZANG29oQeVZPQqJVK.  
Are you sure you want to continue connecting (yes/no)? yes  
Warning: Permanently added 'timberlake.cse.buffalo.edu,128.205.36.8' (RSA) to th  
e list of known hosts.  
foadhaji@timberlake.cse.buffalo.edu's password:  
Last login: Mon Feb 12 14:31:05 2018 from dhcp095-245-125.wireless.buffalo.edu  
  
>>System monitored for unauthorized usage and abuse.  
  
> Hostname:          timberlake.cse.buffalo.edu  
> Operating System:  CentOS-6 x86_64  
> System Use:        Student systems timeshare  
  
timberlake {~} >
```

- 7.
8. Using the course number (for example cse587) and the path in which your project/file is located (if you don't know where it is, or haven't uploaded your file, see section 2), you will be able to submit your project via `submit` command.

`Submit_cse# PATH-OF-YOUR-FILE`

Replace `#` with your course number, and replace `PATH-OF-YOUR-FILE` with the actual path of your file/project in your machine:

```
timberlake {~} >  
timberlake {~} > submit_cse587 /home/csggrad/foadhaji/MY_PROJECT.zip
```

9. Hit the Enter, you will get `submission successful` if your file is successfully submitted to Timberlake server, like this:

```
timberlake {~} > submit_cse587 /home/csggrad/foadhaji/MY_PROJECT.zip  
Submission of "/home/csggrad/foadhaji/MY_PROJECT.zip" successful.  
timberlake {~} >
```

You are all set! For more information on submit script, please see [1].

- **References:**

1. UB CSE Submit Script <https://wiki.cse.buffalo.edu/services/content/submit-script>
2. UB CSE Remote Access <https://wiki.cse.buffalo.edu/services/content/cse-remote-access>
3. UB CSE Student Servers <https://wiki.cse.buffalo.edu/services/content/student-servers>
4. FileZilla https://wiki.filezilla-project.org/Client_Installation
5. PUTTY Installation <https://www.buffalo.edu/ubit/service-guides/software/downloading/windows-software/managing-your-software/putty.html>