General Instruction

- You may need to do some research to complete the assignment.

- Submit your work in the Dropbox folder via BeachBoard (Not email or in class).

1. (0 points) Install a `Java virtual machine` on your local machine.

   - You shall run a java program on a **terminal environment** by typing like
     `javac HelloWorld.java; java HelloWorld`

2. (40 points) Write a `FTP` client program using `Java` and `Apache Commons Net`.

   - The file name should be `Assn3.java`. Otherwise, you will receive **zero** point.
   - The program shall provide the functions of the following commands
     - ls: list contents of remote directory
     - cd 'directory name': change to the remote directory
     - cd ..: change remote directory to its parent
     - delete 'file name': delete the remote file
     - get 'file name': receive the remote file
     - get 'directory name': receive the remote directory recursively
     - put 'file name': send the local file
     - mkdir 'directory name': make the directory on remote machine
     - rmdir 'directory name': remove the remote directory recursively
     - * The 'file name' and 'directory name' can have spaces.
   - The command line arguments will be passed to the program in the following formats.
     1. `args[0]`: IP of a FTP server
     2. `args[1]`: id:password
     3. The others are requested jobs. ex) `"ls" "mkdir test folder"`...
     4. The program shall execute the jobs in the given order.
   - The program shall be executed in a terminal environment. Otherwise, you will receive **zero** point. (Locate `commons-net-3.6.jar` in the same folder of `Assn3.java`)
     `javac -cp "commons-net-3.6.jar" Assn3.java`
     `java -cp ".;commons-net-3.6.jar" Assn3 "ls" "mkdir test folder" "ls"`
   - Test your client program with the FTP server on your cloud machine.
   - Submit your `Assn3.java` only.