Itec/MODR 2915/2635 EN
Fall 2020

Homework 1: Glendon working environment

Moodle: https://eclass.yorku.ca

Rstudio-server: https://oldtown.glendon.yorku.ca/
Username: yourlastname (always in small letters)
Password: your_student_number
Your web pages are at: **http://oldtown.glendon.yorku.ca/~yourlastname**

Please complete Exercise 1 before our first class.

Exercise 1:

Login our server at: https://oldtown.glendon.yorku.ca/
Username: yourlastname (always in small letters)
Password: your_student_number

- For example, if your full name is "Peter Toft", then you web site is http://oldtown.glendon.yorku.ca/~toft/
- If your last name is "Peter El Hare", then your web site is http://oldtown.glendon.yorku.ca/~elhare/ (last name is El Hare)
- There are 2 students D Chen and J Chen. So the web is for each student: http://oldtown.glendon.yorku.ca/~dchen/ http://oldtown.glendon.yorku.ca/~jchen/
- **Your web pages are in the directory www:** /home/yourlastname/www
- **Your home directory is /home/yourlastname**

You will have next this graphic, or graphical user interface (GUI) below:

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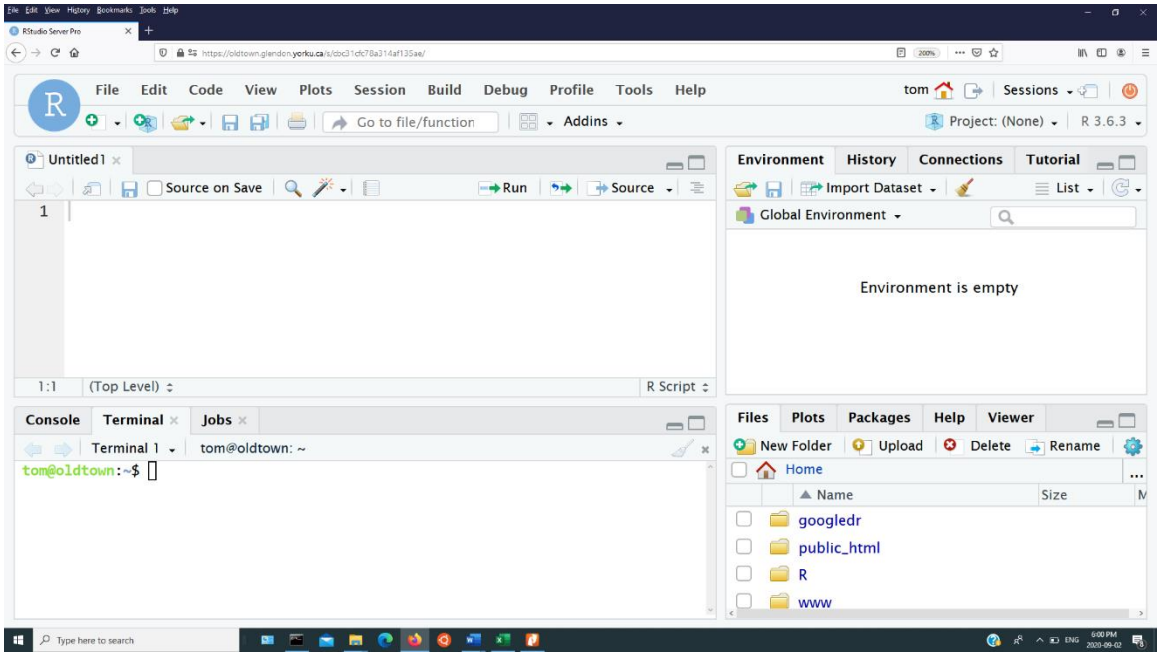

Click on "terminal" to activate that console in order to type command line (CLI), followed by "return" key. So we are giving a command to the computer (operating system) by typing a text (a keyword); more on Human–computer interaction.

Utility	Description
`ls`	"list" files and directories
`pwd`	"print working directory"
`cd`	"change (your working) directory"
`mkdir`	"make directory"
`rmdir`	"remove directory"
`cp`	"copy" a file or directory
`mv`	"move" a file or directory (i.e., rename it)
`rm`	"remove" a file (i.e., delete it)

Displaying Text Files

It is often convenient to look at the contents of a text file without having to open it in an editor. Previously in this lab, we saw that `cat` can be used for this purpose, but it is most useful for short files that can be viewed all on one screen.

GNU/Linux provides several other utilities that are useful for "paging" through text files (i.e., for viewing files one page at a time). Several of these commands are outlined in the following table.

Command	Description
`more`	move through a file screen by screen (hit space for the next page, return for one more line)
`less`	a new and improved version that allows backward paging as well with the `up-arrow`, `down-arrow`, `Page Up`, and `Page Dn`.
`head`	show the first few lines of a file
`tail`	show the last few lines of a file

Exercise 2:

Definition (Wiki): A **command-line interface** (**CLI**) processes commands to a computer program in the form of lines of text. (Issue a command by typing text at a **terminal,** then press return.)

Try the following CLI:

(a) convert -size 800x800 canvas:white white.png
(b) convert -size 800x800 canvas:blue white.png
(c) `convert -size 800x800 xc: white.png`
(d) `convert -size 800x800 xc:transparent transparent.png`
(e) `https://trac.ffmpeg.org/wiki/Slideshow`
(f) `youtube-dl URL`
(g) `ffmpeg -i movie file.mp3`

(h) http://oldtown.glendon.yorku.ca/~teaching/2021/l1/ex003.mp4

#	Operation	What is the Command?
1	list files & directories.	
2	list all files & directories including the hidden ones.	
3	make a sub-directory called "**my_file**" in the home directory.	
4	change to names directory.	
5	take you to home directory. Assume you are in "my_file" directory.	
6	show the path for where you are in the directory.	
7	read the manual page of command "xyz"	
8	list the contents of the home directory, no matter where you are.	
9	copy "file1" to "file2".	
10	delete my_file subdirectory.	
11	rename file1 to file2.	
12	display the content of a file called my_file1	
13	redirect the output to list1?	
14	count the number of lines, words, and characters in my_file1?	
15	count only the number of lines in my_file1?	
16	count only the number of words in my_file1?	
17	count only the number of characters in my_file1?	
18	display all lines of list1 & list2 containing the letter "p" & sort the result.	
19	find out about "sort".	
20	display the names of all files in directory "ubuntu" and their permissions.	

<**Exercise 3**> Web security with htpasswd.

1. Create the file named .htaccess in the directory you wish to protect
Which has the following content

```
AuthType Basic
AuthName "restricted area"
AuthUserFile /home/lastname/secret/.htpasswd
Require valid-user
```

We suppose that we are protecting the web directory
http://oldtown.glendon.yorku.ca/~lastname/confidential
So the directory we wish to protect is /home/lastname/www/confidential.

2. Create the directory /home/lastname/secret
3. Create the password and username for the web protected URL
4. htpasswd -c /home/lastname/secret/.htpasswd username

HTML Introduction

What is HTML?

HTML is the standard markup language for creating Web pages.

- HTML stands for Hyper Text Markup Language
- HTML describes the structure of Web pages using markup
- HTML elements are the building blocks of HTML pages
- HTML elements are represented by tags
- HTML tags label pieces of content such as "heading", "paragraph", "table", and so on
- Browsers do not display the HTML tags, but use them to render the content of the page

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A Simple HTML Document

Example

```
<!DOCTYPE html>
<html>
<head>
<title>Page Title</title>
</head>
<body>

<h1>My First Heading</h1>
<p>My first paragraph.</p>

</body>
</html>
```

Example Explained

- The `<!DOCTYPE html>` declaration defines this document to be HTML5
- The `<html>` element is the root element of an HTML page
- The `<head>` element contains meta information about the document
- The `<title>` element specifies a title for the document
- The `<body>` element contains the visible page content
- The `<h1>` element defines a large heading
- The `<p>` element defines a paragraph

HTML Tags

HTML tags are element names surrounded by angle brackets:

<tagname>content goes here...</tagname>

- HTML tags normally come **in pairs** like and
- The first tag in a pair is the **start tag,** the second tag is the **end tag**
- The end tag is written like the start tag, but with a **forward slash** inserted before the tag name

Tip: The start tag is also called the **opening tag**, and the end tag the **closing tag**.

Exercise 4: html5

```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8" />
    <title>Ma passion pour les animaux</title>
  </head>

  <body>
    <h1>Titre de niveau 1</h1>
    <p>Voici mes animaux:</p>
    <ol>
      <li><strong>Dragon</strong></li>
      <li>chat</li>
      <li>giraffe</li>
    </ol>
  </body>
</html>
```

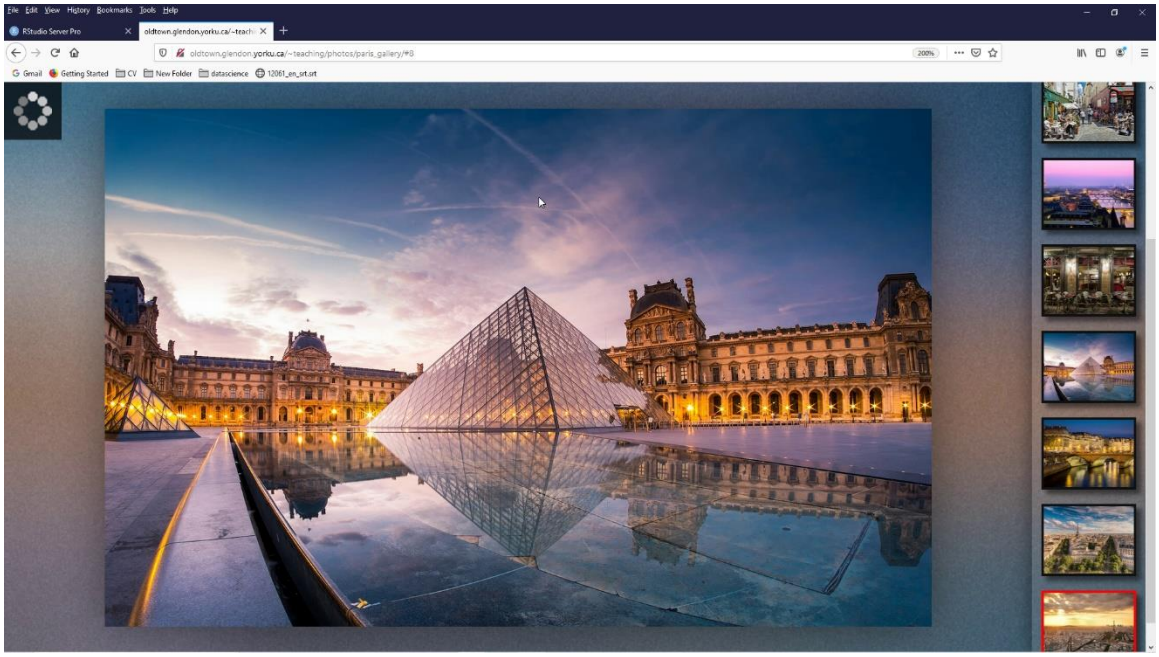
Make a web page with the html5 code given above to be displayed at:

http://oldtown.glendon.yorku.ca/~yourlastname/examples/ex1

Exercise 5: Making a photo gallery with CLI.

(a) View, repeat and explain each of the CLI given in this video:

http://oldtown.glendon.yorku.ca/~teaching/2021/l1/ex004.mp4



(b) What do the CLI do in this video:

http://oldtown.glendon.yorku.ca/~teaching/2021/l1/ex005_pwd_www.mp4

The program is fgallery

fgallery input_directory output_directory

Exercise 6:

Your web page is at: **http://oldtown.glendon.yorku.ca/~yourlastname**

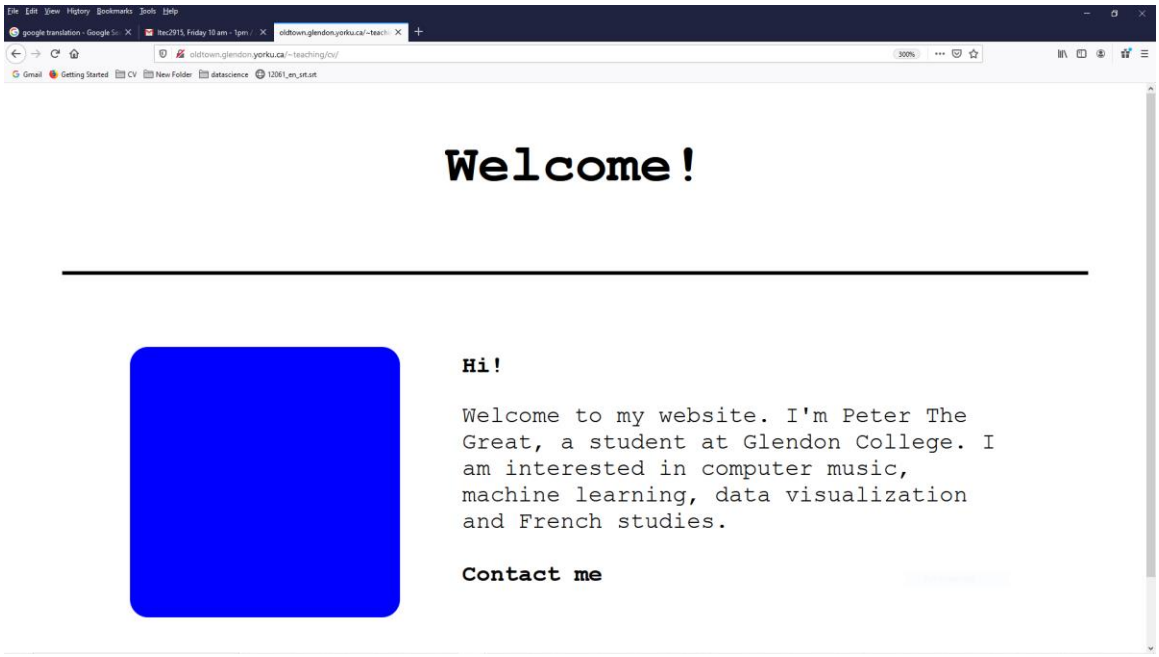
Visit the following links:

- http://oldtown.glendon.yorku.ca/~yourlastname/music/mp3
    - What should you do so that the URL link above be renamed as: http://oldtown.glendon.yorku.ca/~yourlastname/music/french
    - What should you do so that that your Paris album is at this location: http://oldtown.glendon.yorku.ca/~yourlastname/paris/memory/french
- http://oldtown.glendon.yorku.ca/~yourlastname/cv/index.html
    - How would you replace the ”blue box” with your own photo?
    - How would you replace “Welcome” by “Bienvenue!”
    - See: https://youtu.be/ZRfsCQPGiS4
    - or http://oldtown.glendon.yorku.ca/~teaching/2021/syllabus/oldtown_rstudio_server_title_cv.mp4

Hint: Edit the file index.html at /home/lastname/www/cv
Replace myphoto.png by your own image with the same name

Here is the html and css codes for the web page above:

```
<!DOCTYPE html>
<html>
<head>
  <link rel="stylesheet" href="css/cv.css">
<!-- Make for my students in Itec at Glendon College -->
</head>
<body>

<div id="header">
<h1> Welcome! </h1>
</div>

<h2>  </h2>
<div id="section">

    <div id="left">
    <center>
    <img src="myphoto.png" width="150px", height = "150px">
    </center>
    </div>

    <div id = "right">
    <b>Hi!</b><p>

        Welcome to my website. I'm Peter The Great, a student at
        Glendon College. I am interested in computer music, machine
        learning, data visualization and French studies.
    <br><br>
    <a href="mailto:someone@yoursite.com">Contact me</a>
    <br>

    </div>

</div>


</p>

<p>

</body>
</html>
```


Welcome!
Hi!
Welcome to my website. I'm Peter The Great, a student at Glendon College. I am interested in computer music, machine learning, data visualization and French studies.
Contact me

Links:

https://www.w3schools.com/