

EECS 1012. Lab 1: VS Code, HTML, Pre-Lab Quiz, Attendance, Submission

A. IMPORTANT REMINDERS

- 1) The pre-lab mini quiz is considered part of this lab.
- 2) You are required to complete the pre-lab mini quiz posted on eClass no later than the beginning of your lab time, i.e., 10am this Friday if you are in the morning sessions (lab03, 04), and 1:30pm if you are in the afternoon sessions (lab01, 02, 05)
Hint: pre-lab quiz 1 may have questions from the course outline/syllabus, academic honesty slides, and Intro slides among other questions.
- 3) You are welcome to attend the lab session. TAs and instructor will be available via Zoom to help you. You are expected to come to your own lab session (either morning or the afternoon).
- 4) Feel free to signal a TA for help if you stuck on any of the steps below. Yet, note that TAs would need to help other students too. Also note that we can give you hints but not solutions.
- 5) You can submit your lab work anytime before the specified deadline.

B. IMPORTANT PRE-LAB TASKS YOU NEED TO PERFORM BEFORE THE LAB

- 1) Find out which lab you are officially enrolled in.
- 2) Download this lab description and read it completely. Save the supplied files in a separate folder (directory) on your computer, name that folder **Lab01**.
- 3) Read the course outline and syllabus.
- 4) Read the academic honesty slides available on eClass.
- 5) Read the Intro slides; make sure you also explore all the links to the resources on the internet and go over some basic/first steps.

C. GOALS/OUTCOMES FOR LAB


- 1) ~~To get you familiar with the lab environment that uses Linux,~~
- 2) To get you familiar with a code editor, in this case Visual Studio Code (aka VS Code),
- 3) To get you familiar with writing a simple HTML document from scratch, understanding that a HTML file has two 'views', as it is not 'What You See Is What You Get' (aka 'WYSIWYG')
- 4) To get you familiar with your TAs,
- 5) To get you familiar with submitting your lab results through eClass.

D. TASKS

Note: to do the tasks that were originally performed using university lab computers on your own computer, you need to install 1) a plain text editor (preferable with code syntax highlighting; e.g., VS Code), and 2) Firefox. Your computer *does not* need to run Linux. You may use other browsers as well; however, keep in mind that the shortcuts the names, and the layout of additional development-related features and menus tend to differ across browsers.




Part 1: Using Firefox on your own computer (nothing is submitted for this part)

- 1) Launch Firefox (on lab computers this would most probably automatically render the `eeecs.lassonde.yorku.ca` webpage),

a) Click on this icon: 

If the icon is not on the current screen, use whichever method is applicable for your computer



- b) Using Firefox, open the supplied `index.html` file, which has a title “Web Sandbox”.

Open the folder **Lab01** that you just created. If the file `index.html` has the  icon associated with it (in front of the file name), then you can double click the filename to open the file with Firefox. If not, right click on `index.html`, and select “**Open With...**” and then select  icon if you see it. If not, click **Open With Other Application** (the exact phrasing will vary depending on the operating system you use), select  from the recommended applications (click on **View All Applications** to expand the list if needed). Another way to open the html file using the browser is to open Firefox first, then select “**Open File**” and then browse for the html file.

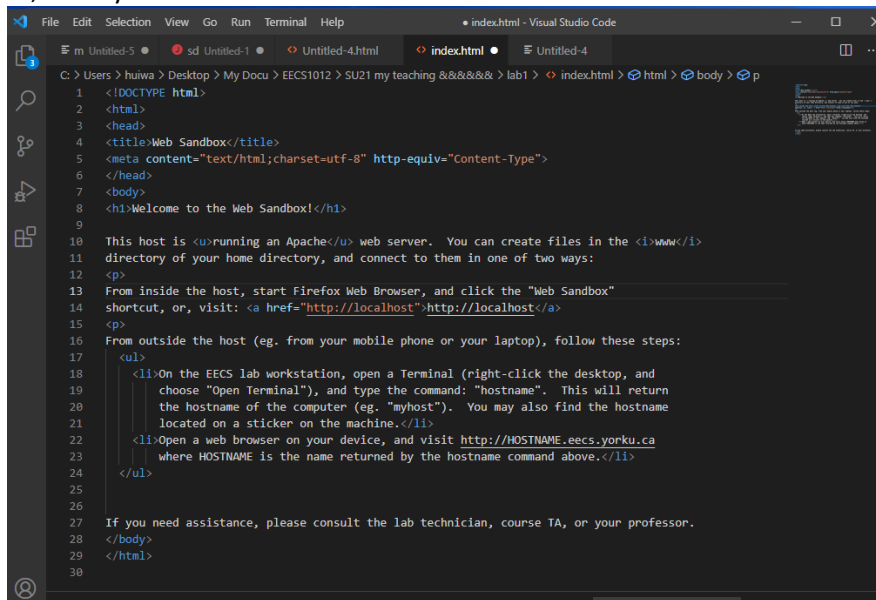
- c) Once opened, you should see a page starting with “Welcome to the Web Sandbox!”. This is “*What You Get*”. Also notice the browser tab shows “Web Sandbox”. You can right-click the webpage and select ‘View Page Source’ to view the html source text, but next we will use an editor to view and edit the source.
- d) Close Firefox.

Part 2: Manipulating a file using VS Code

- a) Find again the `index.html` file in folder **Lab01**

Now, right click on `index.html`, and select “**Open With...**” and then select  icon if you see it. If not, click **Open With Other Application** (the exact phrasing will vary depending on the operating system you use), select  from the recommended applications (click on **View All Applications** to expand the list if needed). Another way to open the html file using VS Code is to open VS Code first, then select “**Open File**” and then browse for the file.

- b) Once opened, what you now see should look like this:



```
1 <!DOCTYPE html>
2 <html>
3 <head>
4 <title>Web Sandbox</title>
5 <meta content="text/html; charset=utf-8" http-equiv="Content-Type">
6 </head>
7 <body>
8 <h1>Welcome to the Web Sandbox!</h1>
9
10 This host is <u>running an Apache</u> web server. You can create files in the <i>www</i>
11 directory of your home directory, and connect to them in one of two ways:
12 <p>
13 From inside the host, start Firefox Web Browser, and click the "Web Sandbox"
14 shortcut, or, visit: <a href="http://localhost">http://localhost</a>
15 <p>
16 From outside the host (eg. from your mobile phone or your laptop), follow these steps:
17 <ul>
18 <li>On the EECS lab workstation, open a Terminal (right-click the desktop, and
19 choose "Open Terminal"), and type the command: "hostname". This will return
20 the hostname of the computer (eg. "myhost"). You may also find the hostname
21 located on a sticker on the machine.</li>
22 <li>Open a web browser on your device, and visit http://HOSTNAME.eecs.yorku.ca
23 where HOSTNAME is the name returned by the hostname command above.</li>
24 </ul>
25
26
27 If you need assistance, please consult the lab technician, course TA, or your professor.
28 </body>
29 </html>
30
```

Is the *content* of this file familiar to you? If your answer is negative, do Part 1 (above) again.

- c) Now, go to line 8 and change it to this: `<h1>Hello World! Welcome to the Web Sandbox! My name is MYNAME!</h1>`
You should replace MYNAME with your actual first and last name.
To save these changes to the file, press **Ctrl + S**, or click on **File** (near top left) and then on **Save**.

Part 3: reopening your page in a browser

Repeat the steps in Part 1: Open the file with Firefox again. (If you do not know how, read Step 2 of Part 1 again.)
Do you see your first and last name in what this time Firefox renders!? If not, do Part 2 again.

Now compare the two ‘views’ of the HTML file. In the VS Code is ‘What You See’ whereas in the browser is ‘What

You Get'. Try to understand the different tags used in the VS Code, and their corresponding effects presented in the browser.

Change ` .. <\ul>` to ` .. <\ol>` in VS Code and then refresh the browser and see what happens. Try to change title from "Web Sandbox" to "Web Sandbox abcd" in VS code and then refresh the browser to observe the change.

Visit <https://www.w3schools.com/> for more information of the tags.

Do part 4 only when you are comfortable with the tags in index.html.

Part 4: creating an HTML document named `myFirst.html`.

- 1) Launch the VS Code editor
- 2) In VS Code, create a new HTML file and save it as `myFirst.html` in folder **Lab01**.

Now, type the following lines of codes in your `myFirst.html` file, and replace ... with some appropriate code:

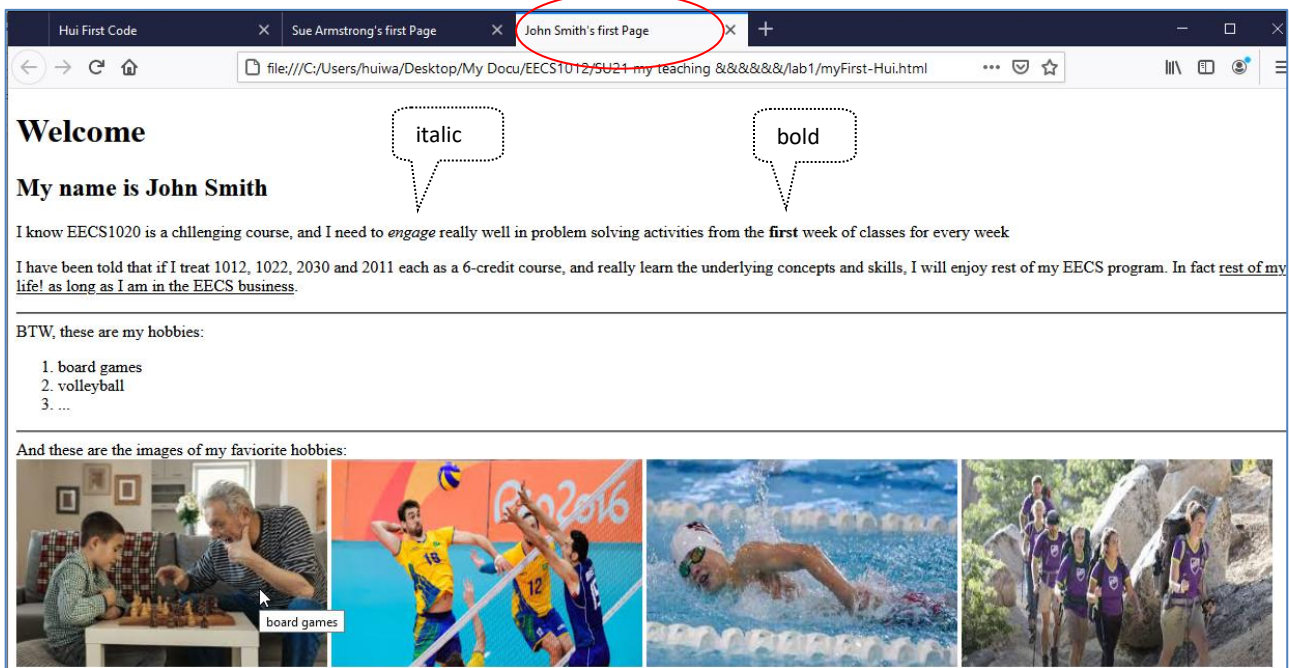
```
<!DOCTYPE html>
<html>
  <head>
    <title> Yourname's first Page</title>
  </head>
  <body>
    <h1> Welcome to my first website</h1>
    <h2> my name is yourname</h2>
    ...
  </body>
</html>
```

- 3) Open the resulting file in Firefox. Its structure should look like the following example figures. Make sure
 - a) you replace the name (both in body and header) with your own name,
 - b) replace the hobbies with 4 of either your favorite foods, or favorite drinks, or favorite places, or favorite cars, or favorite music instruments, etc.
 - c) replace the favorite places/images, with 4 of the things you mentioned in b). The texts above the images should match the texts in b). For example, if in b) you mention 4 favorite places to visit, then give 4 pictures of the 4 places. The width and height of the images should be the same. Adjust the widths and heights of the images so that they are aligned in one row as shown in the example figures. Also, when the mouse is hovered on the images, it should show the name mentioned in the bullet point, as shown in the figures below.

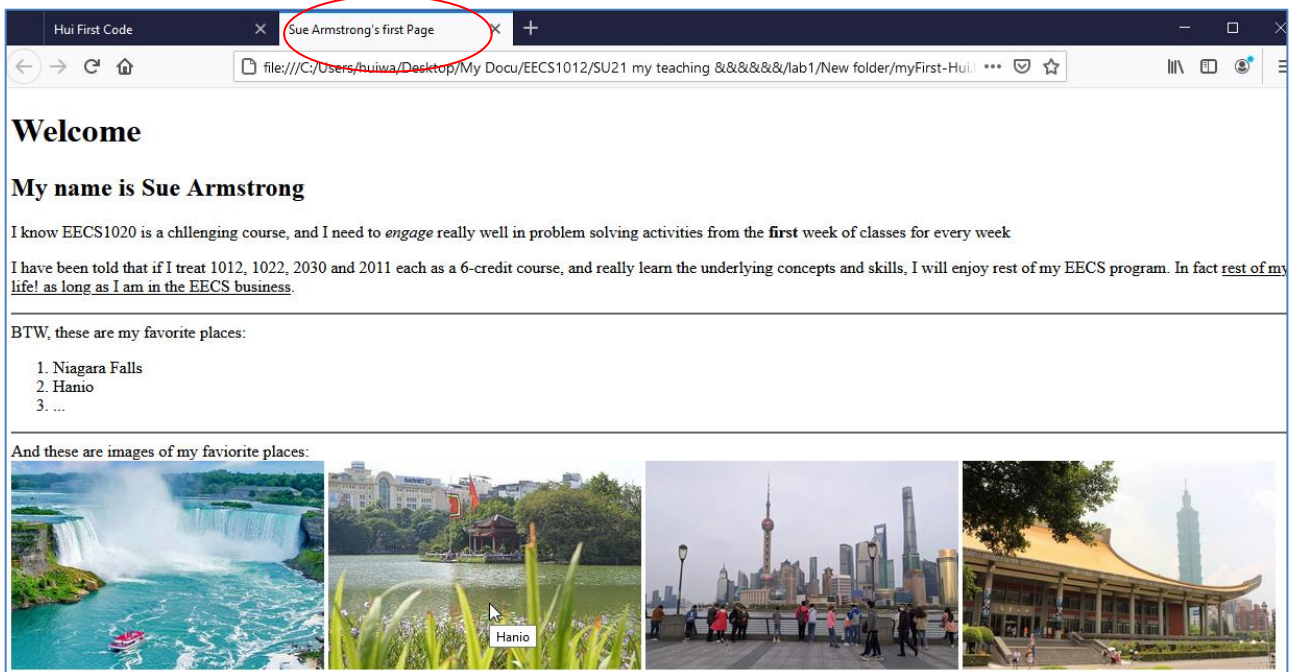
Note that images in HTML can be local or can be on the web. But in this lab, instead of downloading the images and link them locally, we use the images on the web. To do this, find some image on the web and then 'copy image address'. This gives the (full) URL of the image. Then, specify the URL of the image in the `src` attribute of the `` tag.

Hint: you may need the following html tags: `<h1>`, `<h2>`, `<p>`, ``, `` and others.

(Incomplete) example1



(Incomplete) example2



Part 5: Submitting to eClass

For details of this part, please see SUBMISSIONS section below.

E. SUBMISSIONS

eClass submission

In the lab1 link where you downloaded the lab files, you will see an assignment submission button.

Submit (upload) your **myFirst.html** there.

Note that since the images in your html should be on the web, you don't need to submit any image files.

F. AFTER THE LAB

Study each of the element tags that you used in this lab via <https://www.w3schools.com/>