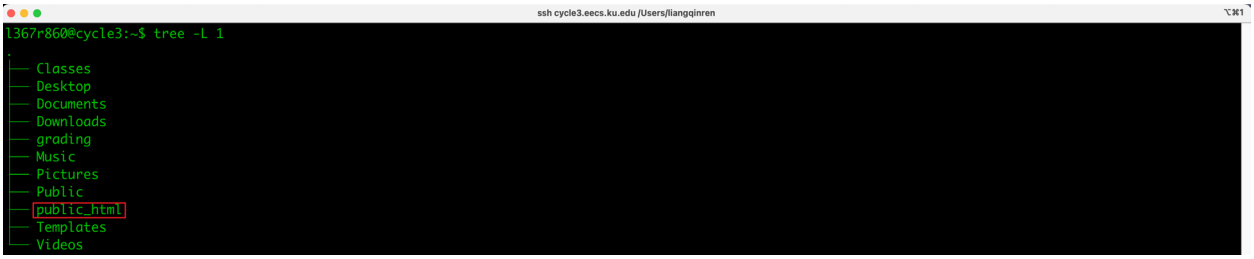
EECS 348 Software Engineering

Lab #7: Web Programming: HTML, CSS, JavaScript, PHP

1. Prepare the environment

To complete this lab, you will need to use the cycle server. We discussed how to connect to your cycle server in Lab 1. Now, let's discuss how to prepare the environment and finish your first page quickly.



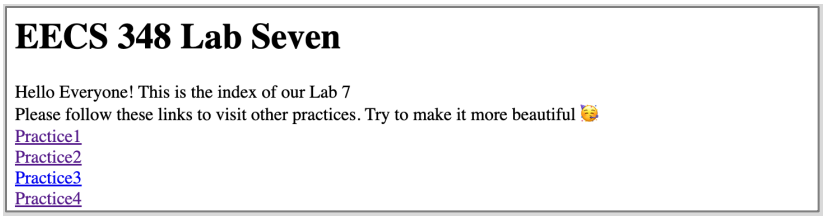
After logging into your cycle server, you should find a folder called `public_html`. If it does not exist, create it.

Next, open your terminal and execute the following commands:

```
wget people.eecs.ku.edu/~l367r860/index.html
wget people.eecs.ku.edu/~l367r860/grant_permission.sh
bash grant_permission.sh
```

Finally, open your browser and visit the following link: https://people.eecs.ku.edu/~l367r860/ (Replace l367r860 with your KU network ID.)

You have completed the first step if you can visit the following page. When creating a new file, you must run the command bash `grant_permission.sh` again.



The index file contains four links to our four practices. If you want to use my index file, you must name your HTML files as `practice1.html`, `practice2.html`, `practice3.html`, and `practice4.html`.

You can find many useful resources on W3Schools. You can also check my example if you don't understand any practice.

Before Starting the Practice. Before starting the practice, I want to explain some questions. The explanation does not affect your practice, so you can skip it.

What do the three commands mean? The first command downloads the index file, the second command downloads the script, and the third command runs the script. The script ensures that you have an HTML file and that you can access it.

What does the link `https://people.eecs.ku.edu/~l367r860/` mean?

A URL represents an IP address, which means one (or more) servers. In this case, `https://people.eecs.ku.edu/` is server 129.237.87.16. The HTTP service's default port is 80. So, when you access `https://people.eecs.ku.edu/`, you are accessing 129.237.86.16:80. More precisely, the service running at this port gives you the file `/var/www/html/index.html`. But this file's behavior will be based on the following KU network ID to forward you to the cycle server `/home/l367r860/public_html`. That's the reason why you must put your files in this folder.

Why do you need to run the script you give us? When you access a page using your browser, it just downloads and parses it for you, which means converting the HTML codes to the page you see. So, you must make sure others can access your files. Otherwise, they can't visit that page, I.e., I can't grade you! In short, the script just sets the permission to 644 so others can access your file. You will find that even if you don't run the script, you can still access your site because the default permission of a new file is 644. So, the script is to make sure the permission is correct.

```
l367r860@cycle3:~/public_html$ ls -al
total 1076
drwxr-xr-x  5 l367r860         48    4096 Apr  4 15:12 .
drwxr-x--x 29 l367r860 l367r860_g    4096 Apr  4 17:03 ..
drwxr-xr-x  7 l367r860 l367r860_g    4096 Apr  3 17:22 backup
drwxr-xr-x  2 l367r860         48    4096 Aug 25  2022 cgi-bin
-rw-r--r--  1 l367r860 l367r860_g    1553 Apr  3 17:21 functions.js
-rw-r--r--  1 l367r860 l367r860_g     147 Nov  3 09:31 grant_permission.sh
-rw-r--r--  1 l367r860 l367r860_g     422 Apr  4 11:49 index.html
drwxr-xr-x  2 l367r860 l367r860_g    4096 Oct 31 11:28 pictures
-rw-r--r--  1 l367r860 l367r860_g    1160 Apr  3 17:10 practice1.html
-rw-r--r--  1 l367r860 l367r860_g     889 Apr  3 17:29 practice2.html
-rw-r--r--  1 l367r860 l367r860_g     362 Apr  3 17:30 practice3.html
-rw-r--r--  1 l367r860 l367r860_g     261 Apr  4 11:48 practice4.html
-rw-r--r--  1 l367r860 l367r860_g     549 Nov  6 21:21 practice4.php
-rw-r--r--  1 l367r860 l367r860_g 1044480 Apr  4 15:12 share.tar
-rw-------  1 l367r860 l367r860_g     372 Oct 31 11:26 style.css
```

Why doesn't the site change after changing my files? The server needs some time to update, and you need to refresh your browser.

Important Reminder. You must use your cycle server to finish this lab!

2. Practice One: HTML EECS Profiles (10 points)

Create a profile page that is styled with CSS. Have fun with this! In your profile, you must include your name, a photo, and contact info. You can also showcase anything good for your professional career, e.g., courses, projects, and work experience. You can also use JS and PHP in this practice. At the same time, you must include at least one link and video.

3. Practice Two: CSS Font Control (10 points)

Create a web page that has a paragraph with some dummy text. Near the paragraph, have a text field to accept RGB values to form any colors for the paragraph and the border. You also need to control the width of the border.

4. Practice Three: JavaScript Password Verification (10 points)

Create a JavaScript program that allows the user to enter a password two times to verify them. If the password is not at least eight characters long or if two passwords are different, alert the user. Otherwise, tell the user that two passwords are matched.

5. Practice Four: PHP Multiplication Table (10 points)

Create a PHP program that receives a number and displays a multiplication table from 1 to the number. You also need to print the row and column indexes in the table.

6. Publish Your Exercises (5 points)

You need to publish your practices to GitHub. At the same time, you need to make sure TAs can access your EECS People Link.
