SWE 642: Assignment 1

This homework is comprised of two parts.

Part1: Student Class Web page

Your first assignment is to create your own class Web page (homepage), which should be password protected. Your homepage should contain a picture and a brief description of yourself. Please use one of the W3.CSS Templates to enhance the look and feel of your homepage – the landing page. (https://www.w3schools.com/w3css/w3css_templates.asp)

You will submit all future homework assignments by posting links on your class web page. You can use *mason.gmu.edu* for your web page. For this class, it is **required** that your class web page be **password protected** (using a PIN). When you will post your homework solutions on this web page, the contents must be protected. You must use the username "swe642" and the same PIN that you will create with this assignment. Please provide a URL and the PIN (i.e., password) to access your *class web page* as part of the assignment submission on the class blackboard by the due date.

The following are instructions for creating a web page on Mason, including how to create a password protected directory.

INSTRUCTIONS TO CREATE A MASON WEB PAGE

All GMU students have an account on **mason.gmu.edu**, and can create small websites. Space is limited. Following is a simple list of commands that will help you create a simple web page. Use these commands **after** logging on to mason.gmu.edu (the same account and password as your gmu patriot web account).

For logging on you will have to use an ssh client (WinSCP for Windows/ Cyberduck for MacOS) to transfer files (SFTP) from your local computer to mason server. For further information on how to connect to mason.gmu.edu refer to http://labs.ite.gmu.edu/index.php/FAQ/SSH
Windows users may use PuTTy to execute following commands, Macs have terminal (ssh)

Credentials to connect to mason.gmu.edu:
Hostname: netid@mason.gmu.edu // netid is your mason email id without @masonlive.gmu.edu
Port: 22
Password: Patriot Web password

- `cd` // Go to your home directory
- `chmod 711 .` (It is chmod 711 (space) dot) // Makes your home directory readable
- `mkdir public_html` // Create the standard home page directory
- `chmod 711 public_html` // Make the directory readable

- `cd public_html` // Go to the home page directory

Your URL will be: **http://mason.gmu.edu/~username/**

Instructions for creating a password protected directory, in Apache:

These instructions are based on the Google's Authentication, Authorization, and Access Control tutorial: http://httpd.apache.org/docs/1.3/howto/auth.html You should see something like the following:

If you are not familiar with Unix commands, it is important to follow these instructions **precisely**. To password-protect a directory in the Apache web server, you must create a directory, give it the appropriate permissions, create the file *.htaccess* with the correct permissions and contents, and create a password file. We are going to name the directory *testaccess*, and the password file *users*. Start from within your public_html directory (or another directory in your website).

Windows users may use PuTTy to execute following commands, Macs have terminal

Before starting, find out which *disk partition* your home directory is on.
After logging on to *mason.gmu.edu*,
enter the command *"pwd"*   // write down the output of this command somewhere

You should see something like "/home/*u3*/USERNAME". *"u3"* is the disk partition; yours might be *u2*, *u4*, *u5*, or something similar. Use that partition in the command below

1. `mkdir testaccess`
2. `chmod 711 testaccess`
3. `cd testaccess`
4. create .htaccess file (It is dot htacess) with the following contents:

```
AuthType Basic
AuthUserFile /home/u3/USERNAME/public_html/testaccess/users
```
             (Replace "u3/…/public_../.." with whatever you got from the *pwd* command)
```
AuthName "642 homeworks"
require user swe642
```

You can create this file using "vi", "pico", or any other editor on mason:
Command: `pico .htaccess`
Hit Ctrl + O (letter o) to save
Or you can create it on your local computer and upload it via sftp. **Make sure it is in the right place!**

5. `chmod 644 .htaccess` (It is dot htacess)
6. Create the password file and add the user swe642 with a password, using this command:
        `/usr/apache/bin/htpasswd -c users swe642`

The option "-c" will create the file and the program will prompt you for a password for "swe642".

7. `chmod 644 users`

8. Create an *index.html* file in the testaccess directory. You can create it with a Unix editor or create it on your computer and use sftp (WinSCP or Cyberduck to copy it up.

9. `chmod 644 index.html`

      (Do chmod 644 for all files you upload to server)

10. Test through a browser by trying to access the directory:

      http://mason.gmu.edu/~USERNAME/testaccess/

Part2: XHTML/HTML5 and CSS

The second part of this assignment is to create a Web site to provide information about the Computer Science (CS) department including a Survey Form using XHTML/HTML5 and Cascading Style Sheet (embedded or external).

The CS Department Information page should include the following.

- Start with a paragraph (or two) providing a brief description of the department. (You can come up with your own text or borrow from the department's web page). Use XHTML heading elements to format text on your page according to importance.

- Provide the list of MS Degrees using the XHTML List elements
- Indicate the required courses for each MS degree program using a table with the course number and course name as the columns
- Create a CS Department Survey page that allows prospective students to provide feedback about their campus visit.
- This web page should contain a form with text boxes using appropriate input types for the user name, street address, city, state, zip, telephone number, e-mail, URL, and date of survey.

- Provide checkboxes that allow prospective students to indicate what they liked most about the campus. The checkboxes should include: students, location, campus, atmosphere, dorm rooms, and sports.

- Provide radio buttons that ask the prospective students how they became interested in the university. Options should include: friends, television, Internet, and other.

- Ensure your check boxes and radio buttons can be activated by clicking on the respective labels

- Provide a text area for additional comments, and a submit button.

- Using the datalist feature, enable the user to select high-school graduation month (January through December), followed by a text field for year.

- Enable the autocomplete attribute for the entire survey form that will allow the user to automatically fill in his/her information (e.g., name, address, email, telephone, etc.) based on previous input.

- Use placeholders where you deem appropriate (e.g., for the date format, email, URL, etc.) that provides an example of the text and/or format/pattern the user should enter.

- Use the required attribute for fields as appropriate that forces the user to enter or select a value before submitting the form.

- Visually indicate to the user which fields are required

- When the survey form is opened, you should automatically provide the focus in the first text field on the form to allow the user to begin typing in that field immediately. Provide dropdown list of options for the user to select the likelihood of him/her recommending this school to other prospective students. The three options of the dropdown list are: Very Likely, Likely, Unlikely.

- Provide a hyperlink to the CS Department Survey Page from the CS Dept Information Page
- Your pages should include the George Mason University Logo as an image link to the GMU Website fixed on the right-bottom portion of your Web page.
- Your web page should make use of the George Mason University color scheme in some way. Green: #006633 Yellow: #FFCC33
- Use an embedded or external responsive css framework like w3 to format the way your form, and the rest of your page, is displayed by making use of the w3-container, w3-row, and w3-col classes in that library.
- The CSS should also be used for fonts, colors, background etc. You are free to be as creative as you'd like. At the very least, the style sheet should include a rule that displays h1 elements in GMU Green (#006633), as well as create a custom style class that could be used for any element on the page.
- The heading at the top of the page should be inside a rectangular box with a solid border in GMU green (#006633) and 5px width. The box should use a box-shadow of your styling choice.
- The body of the window rendering your page should have a light gray (or a color of your choice) background.
- While your XHTML/HTML5 pages must satisfy all the above criteria, they need not be limited to them.

Submission

Please create a link of the second part of this homework on your password-protected class web page. That is, post a link to the CS Department Information page along with the Student Survey Form on your class home page you created for Part 1 of this assignment. As this assignment is XHTML/HTML5 and CSS only, you can create it in the mason.gmu.edu in your public_html directory.

NOTE: We will access each assignment shortly after the due date and not look at your web site afterwards. If you submit an assignment late, you must send an email to me & the TA telling us that it is ready (late penalty will apply). You must include "swe642" in the subject of the email.

Please submit homework on the Blackboard by providing your URL and login credential. Making your work available to me and the TA is **your** responsibility; if we cannot access your file then you will not get credit. **Be sure to test the access to your file before the due date.**

Useful Links:

https://www.w3schools.com/w3css/default.asp
https://www.w3schools.com/w3css/w3css_templates.asp

Grading Rubric

The following areas will be used in the basic grading of the projects:

☐ Does system meet the functional requirements: 85 points

☐ Does the assignment run without errors: 13 points

☐ Comments: 2 points