

Web App. Dev. Homework 2

Names _____



Create a homework directory called hw2, which will contain all of your files for submission purposes.

This is an individual homework assignment. No partners allowed. All questions or clarifications must be directed to the

Homework 2

Part 1 – Making a secure password

In this part of the homework, you will create a webpage form that will ask for a secure password.

- Create a new web page called **password.html** with the following forms
 - An input form for a username
 - An input form for a user password
 - An input form for repeating the previous password
 - A submit button
- Have appropriate labels for all the forms. Have appropriate header text that describes your page to the visitor.
- Add a minimum of 10 css style formats to spruce up the page. Choose an appropriate image or color for a background.
- Validate that the user password and the repeated password entry are exactly the same. Print a message below the forms in a bright color if they do not match.
- Validate the score of the password, using the following formula.
 - Given a password of N total characters, where U is the number of uppercase characters, L is the number of lowercase characters, D is the number of digits, and S is the number of symbols (everything else).

- Number of characters adds $(N * 4)$ points.
- For uppercase characters, If $(U > 0)$ then add $(N - U) * 2$ points, otherwise add 0.
- For lowercase characters, If $(L > 0)$ then add $(N - L) * 2$ points, otherwise add 0.
- If the password only contains digits, add 0 points, otherwise the number of digits adds $(D * 4)$ points
- Number of symbols adds $(S * 6)$ points
- The number of middle digits (D') or symbols (S') (not at the very beginning or very end) adds $(D' + S') * 2$ points.
- These measures are adapted from the password strength test found at <http://www.uic.edu/apps/strong-password/>
- When a user submits matching passwords, compute the score, indicate the score with a reasonable, user-friendly message, and color the score and message based upon the following ranges
 - 0 - 20 : Red
 - 21 - 40 : Yellow
 - Above 40 : Green

Part 2 – Making a secure password with more javascript.

In this part of the homework, you will take your part one solution and implement it using javascript.

- Create a new file called passjs.html, that implements all of the functionality of your part 1 solution using javascript. Consult lab three for details and hints.
- Add additional functionality for generating a random password. An addition button beside the submit button labeled "Make Random Password" will randomly generate a password of length at least 8 with a score above 40.
 - You may use Math.random() in order to help you generate random numbers.
 - The button would create an alert message that will suggest the random password with an appropriate user-friendly message. In the message, indicate the score of the random password.
- Once finished, copy your passjs.html into a passmini.html.
- Minify your javascript code in passmini.html, using any free online minifier, such as javascript-minifier.com. Save the minified version into passmini.html. If you use external javascript files, create minified versions of those as well, and rename them with a "mini" in the filename.
- **Create a zip file of your hw2 folder called hw2username.zip (such as hw2dlim.zip) and submit the file in Canvas.**