

# CS44105-600 Web Programming 1

## Final Project

### HTML5, CSS, and JavaScript

#### ***Objective***

The intent of this assignment is to demonstrate your mastery of all the concepts you learned this semester in the course up to JavaScript.

#### ***Submitting***

Submit into Canvas the URL(s) of the page(s) of your final work and the filled-out template file given in the assignment.

#### ***Grading***

The grade for this assignment will be broken down as follows:

Adherence to the Functional Requirements, Layout Accuracy (75/100)

Correct positioning after Resizing (10/100)

Non-Functional Requirements (15/100)

#### ***The project***

You have decided to open a store called "RYUG (Recycle Your Ugly Gift)" and want to advertise your stuff online. Create a website for RYUG that applies (and reflects) the concepts you have learned so far in this course up to JavaScript. Below are the requirements that your site must contain.

While you may have fun recycling any ugly item in your store and design your store as ugly or as pretty as you like, the website must look professional, with items well organized, pleasant to use, and easy to navigate.

Here are some important Human-Computer Interface (HCI) guidelines for Web that may guide your design:

1. Develop a unique look and feel for your website so that users are attracted and willing to return. If your website looks just like every other website out there, they won't remember it. Important elements that will help distinguish your website and develop your brand include:
  - a. a Logo,
  - b. the choice of Typography or Fonts,
  - c. the Colors used, and

- d. the Layout.
2. Your website's overall layout can enhance your branding if it's distinctive. However, prioritizing usability over artistic freedom, as sacrificing usability for aesthetics may not boost website traffic.
3. Ensure users have a clear understanding of your website's content. Remember that a webpage that users are unaware of or can't easily access serves little purpose.
4. Maintain a consistent navigation system throughout your website. Avoid using different navigation styles, such as a left-hand sidebar on some pages and a top-navigation scheme on others.
5. Keep in mind that users may enter your website through pages other than the main homepage. Encourage deep linking, where visitors may share links to specific inner pages. If someone arrives at your website via a deep link, provide them with context about the broader website and clear pathways to access the rest of your content.
6. Avoid leading visitors into dead ends without a way to navigate back to the main website. It's important to prevent situations where visitors are stuck and forced to use the web browser's back button, as this signifies poor design.

Prepare also, together with your website, a file that indicates where and how in your website each functional and non-functional requirement below has been implemented. A template of this file is available at the bottom of this page. Submit the URL of your RYUG site store and this file to Canvas.

### ***Non-Functional Requirements (15%)***

The site must use:

1. (5%) valid and semantically appropriate HTML 5 and CSS Layout. Proof of validation is required and must be inserted in the template file. Quality to code and use of semantic tags is imperative.
2. (2%) proper and consistent navigation across the pages
3. (2%) any necessary image of your choice
4. (2%) proper color choice that adheres to the Human-Computer Interface (HCI) principles
5. (2%) a nice and efficient layout of the elements in the page that adheres to the Human-Computer Interface (HCI) principles. The Bootstrap CSS Framework (<http://getbootstrap.com/>) is encouraged (and it will boost your

project grade by 5 points) but is not required. If you use Bootstrap, any additional non-Bootstrap CSS must be contained within a single additional CSS file.

6. (2%) JavaScript.

## ***Functional Requirements***

The site must:

### ***Correct positioning after Resizing (10%)***

1. (10%) be responsive when resized and adapt both to a desktop as well as to a phone device.

### ***Other functional requirements (75%)***

2. (5%) have a minimum of 5 pages in all (but can be more if you prefer). The first page must be a “login page”. One page must contain the “history of your store”, one page is for “getting a discount”. The others are of your choice.
3. (5%) advertise a minimum of 6 items in your store.
4. (10%) use JavaScript to login to the first page of your site. The login page (beyond whatever you like to show) has two fields, one for the username, the other for the password, plus the Login button. Suggest which password to use to login and use JavaScript to verify the password. Send the page if the password is correct to the welcome page of your site.
5. (5%) contain, in addition to images, at least one video or audio.
6. (10%) contain at least 1 table and a minimum of 2 different forms and 2 buttons in addition to a search field. Style the table using CSS.
7. (5%) contain at least one animation not required in other points of this list (i.e. beyond the animated ad requested in #8) performed with advanced CSS layout.
8. (5%) include 1 created by you “fake” ad per page (or more if preferred). The same fake ad can be reused on another page. However, in the entire site, there should be at least 3 distinct “fake” ads and at least one of the fake ads must be animated. All the others can or cannot be. The animation can be very simple.
9. (10%) use JavaScript in the “history of your store” page to automatically scroll the text in an area. When the text is clicked, it scrolls the text, and when it is clicked again the scrolling stops. If you prefer to insert this feature in another page, that is fine as long as you use the feature in the site. (Hint: The Wang’s book whose link is available in Canvas has info about scrolling)
10. (10%) contain a JavaScript code to count the words of each page. This option must appear above the ad and, if desired, only in one page can replace the “fake” ad of the page (this means that all of the pages except one, have both the word count and the ad, and one may have both or only the word count).

11. (10%) have a “get your discount page” where the user can play a game to get a special discount. These are the requirements of the game. The page shows nine tiles. The user can click a tile to discover the discount hidden behind. The tile flips when clicked and shows the earned discount. No more tiles can be flipped after a discount is discovered. Decoration of the tiles and other style of the page are left to you. If you have no clue on how to accomplish this, you may watch any tutorial/video that teaches how to write the code for a tic-tac-toe game or a memory game and make your modifications. If you do so, please in the file you attach to your project insert the name of the site/video tutorial where you got your inspiration and describe the modifications you made. The discount page is similar to flipping tiles in a tic-tac-toe game or in a memory game. **If I find out that you have taken code from any place without referencing it, you will get a 0 on your final exam.**

### ***Template of the file to attach to the project submission.***

Use the following template for the file to attach to the project. Fill out the template below for the project requirements and explain where and how in your website each functional and non-functional requirement below has been implemented. Attach below copy of the validation of the pages of your website. This file can also be used as a check list to verify you have implemented all the necessary requirements.

### ***Template***

I have implemented the project requirements in the following way (**how and where**).

### ***Non-Functional Requirements***

<b>Non-Functional Requirements</b>	<b>How</b>	<b>Where</b>
NF_Req #1		
NF_Req #2		
NF_Req #3		
NF_Req #4		

NF_Req #5		
NF_Req #6		

### ***Functional Requirements***

<b>Functional Requirements</b>	<b>How</b>	<b>Where</b>
F_Req #1		
F_Req #2		
F_Req #3		
F_Req #4		
F_Req #5		
F_Req #6		
F_Req #7		
F_Req #8		
F_Req #9		
F_Req #10		
F_Req #11		

### ***Validation of your pages***

Paste below a copy of the validation of the pages of your website.

# The Rubric

## Web Programming 1 - Final Project

Adherence to the Functional Requirements, Layout Accuracy	(75/100)
Correct positioning after Resizing	(10/100)
Non-Functional Requirements	(15/100)

### ***Non-Functional Requirements***

The site uses:

- valid and semantically appropriate HTML 5 and CSS Layout. Does it use semantic tags? Is the code of good quality?  
\_\_\_/5
- proper and consistent navigation across the pages  
\_\_\_/2
- any necessary image of your choice  
\_\_\_/2
- proper color choice that adheres to the Human-Computer Interface (HCI) principles  
\_\_\_/2
- the Bootstrap CSS Framework (Y/N)  
Are additional non-bootstrap CSS contained within a single CSS file?  
\_\_\_/2
- Javascript.  
\_\_\_/2

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Total  
\_\_\_/15

### ***Functional Requirements***

#### ***Correct positioning after Resizing***

- responsive when resized and adapt both to a desktop as well as to a phone device.  
\_\_\_/10

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\_\_\_/10

#### ***Other requirements***

has a minimum of 5 pages. The first page must be a “login page”. One page must contain the “history of your store”, one page is for “getting a discount”.

\_\_\_/5

advertise a minimum of 6 items.

\_\_\_/5

use Javascript to login to the first page of your site. The login page has two fields, username and password, plus the Login button. Suggest which password to use to login and use Javascript to verify the password. Send the page if the password is correct to the welcome page of your site.

\_\_\_/10

contain at least one video or audio, beyond images.

\_\_\_/5

contain 1 table and a minimum of 3 different forms/buttons in addition to a search field. Style the table using CSS.

\_\_\_/10

contain at least one animation not counted in other points of this list performed with advanced CSS layout.

\_\_\_/5

contain at least 1 fake ad per page. At least one of the fake ads is animated, all the others can or cannot.

\_\_\_/5

use Javascript in the “history of your store” page (or in any other page) to scroll automatically the text in an area. When the text is clicked, it scrolls, when it is clicked again the scrolling stops.

\_\_\_/10

contain a Javascript to count the words of each page. This option must appear above the ad or can replace the ad of the page.

\_\_\_/10

have a “get your discount page” where the user can play the game to get a special discount. The page shows nine tiles that when flipped show the discount earned.

a. Does it work?

b. Did you use someone else’s Internet code?

i. Is the code referenced and the modifications discussed?

**If I find out that you have taken code from any place **without referencing it, you will get a 0 to your final exam.****

\_\_\_/10

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Total

\_\_\_/75