

CS 2033

Multimedia and Communications II

Take-Home Exam

Cumulative Website Project

## Overview

For the take-home exam / final project, you will be creating a website using HTML, CSS, and JavaScript. It is similar to the last two assignments with similar criteria taken from each, plus some new features that require you to think outside the box a bit and apply the topics you've learned in lecture/lab in a new way.

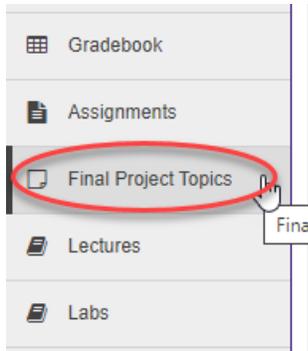
For this website, you are not allowed to use any Bootstrap components. You are allowed to use the blocks.css that was provided to you in Assignment 2 but this is **not** required. You are also allowed to use code that was provided to you in any of our lecture slides, labs, and additional online demos (the ones provided for this course – not from demos you find online!)

You are given a specific company for which this website must be made. It's up to you to make an appropriate name for the company and to create some of the content. Any content you include must relate to the business theme assigned to you. Some of these topics include a geographical location, and some do not. If yours does have a location, then part of your "About" section must mention at least a bit about the geography. For example, if you are assigned "Burger joint in Chicago" then you will have to make your website for a burger place located in Chicago. If you are assigned "Haunted house escape room" then you will make a website about a haunted house-themed escape room.

There are many technical requirements that you must follow. But you are given a lot of freedom in terms of the content and the overall design of the website. Marks are also given for how professional and clean the website looks. Be creative!

## Getting Started

First off, take a look at your assigned topic. To find this, click into the new tab on the left side, called "Final Project Topics" and click on the "TakeHomeExam" link.



<a href="#">Title</a>	<a href="#">Last Modified</a>	
TakeHomeExam	10 Apr 2020 00:08	<a href="#">view</a>

Now start to think about a good name for the company that is relevant and appropriate for the topic assigned to you. While you think of the name, begin reading through all the instructions in this document. Make sure you understand all the requirements before starting to create the website.

## Overall Requirements

- You must write your own code (No Kompozer or Dreamweaver, etc.)
- You **cannot** use Bootstrap for the basis of the site nor any downloaded theme, template, or module
- The website must be a single, scrolling page format
- Include the following sections (i.e. use a <section> tag for each):
  - Top
  - About
  - Slogan
  - Products/Services \*Depending on the topic assigned to you
  - Account
  - References
- Add comments in your code between sections/modules.
- Only use your own photos or copyright-free pictures from online. See the References section below for more details (same policy as Assignment 1).
- Keep track of the URLs of any images you take from these sites so that you can easily reference them without having to re-find them later

## Folder Structure

- Name the project's root folder "exam"
- Home page must be named "index.html"
- Within root folder, add subfolders:
  - "css" to contain CSS files
  - "images" to contain all images
  - "js" to contain JavaScript files

## Meta Requirements

- Set the page title to be formatted as: *CompanyName – SectionName* (see the "ScrollFire Page Title" explanation below)
- Add links to external CSS and JavaScript files within the head. Do **not** use any inline or internal CSS or JavaScript (except JavaScript event listeners).

## Top – Requirements

- The top section must contain an image:
  - Find a picture that relates to your assigned topic
  - Using Affinity Photo or Adobe Photoshop, apply a mask on one portion of the image so that it remains coloured, and convert the rest of the image to black and white, as was done in Lab 3 Exercise 3.
  - You will need to include this .afphoto or .psd file used to create this effect. Save it in your "images" subfolder.
- Apply "enhanced parallax" to this top picture using the technique explained in lecture 10 and done in Lab 9 Exercise 1. Use m and b values that make the parallax effect look seamless and clean.
- Add a COVID-19 statement at the very top of the site, placed above (in front of) the banner picture:

- Create a short COVID-19 statement that explains how this company is impacted by COVID (i.e. closing the store, working at reduced capacity, switching production to create masks, etc.).
- This message must be displayed within a yellow div at the very top of the site, such that it overlaps the banner picture.
- On the right side of this yellow div, include an 'x' and use JavaScript that removes/hides this yellow COVID statement box when the 'x' is clicked.
- Near the bottom of the top picture, create a CSS title banner:
  - This banner must have a width of 80% and be centered horizontally
  - The banner must be above (in front of) the picture
  - The name of your company must be clearly displayed in this banner
  - When you scroll down past the position in which the banner's top would be above the browser window, you must use JavaScript and CSS to hold the banner at the top, fixed in that position.
- Note: for this website, no navigational links are required!

## About – Requirements

- Write a summary of the company structure and what you do (5-6 sentences)
  - If your assigned topic includes a city/country, then include a blurb in this summary about your company's geographical location and how it affects the business (i.e. a canoe retailer in Newfoundland vs Saskatchewan will have much different successes based on location)
- Include two pictures that are relevant to the company

## Slogan – Requirements

- Create a short, catchy slogan that relates to this company
- Use Affinity Photo or Adobe Photoshop to create a graphic with this slogan
- You must also include at least one shape along with the slogan text
- Create a clipping mask of the text and shape(s) with an appropriate background image, as was done in Lab 2 Exercise 2

- Add this exported image to the website for this section

## Products / Services – Requirements

- Come up with at least 3 **different** products OR services (depending on what kind of company was assigned to you).
- For each one, add a box that includes the following information:
  - Product/service name
  - Relevant image
  - Description (2-3 sentences)
- All the product/services boxes should have the same design and they should all be displayed neatly.

## Account – Requirements

- Create an account div, and within it create a login div and a registration div. Each of these inner divs will contain its own web form, as explained below, but only one will be visible at any given time.
- By default, make the registration panel hidden so only the login panel is visible.
- At the bottom of this outer div, create a div that acts like a link to switch between the login and registration panels. Whenever this is clicked, toggle which panel is hidden and which is visible, using techniques *similar* to the form modifications shown in lecture and Lab 7 Exercise 3.
- Create a LOGIN web form:
  - In this form, add the following input fields:
    - Username (text input)
    - Password (password input)
    - Login (button input)
  - Create a "login" function in JavaScript:
    - The function must only trigger when the Login button is clicked
    - In the function, check if the entered username is "user2033" and the entered password is "letmein".

- If both are entered correctly, create an alert window that says "Welcome back!"
- If one or both are not entered correctly, then create a "headshake" effect on the account panel (like the Mac login when something is entered incorrectly). The panel must "shake" back and forth a few times to indicate the incorrect login.
- Hint: create a CSS animation for the shake effect and use JavaScript to add and remove the animation class to the account panel.
- Create a REGISTRATION web form:
  - In this form, add the following input fields:
    - Username (text input)
    - Password (password input)
    - Confirm Password (password input)
    - Register (button input)
  - Create a "register" function in JavaScript:
    - The function must only trigger when the Register button is clicked
    - In the function, check if each of the fields is valid based on the criteria below
    - If all of the criteria (below) are met, create an alert window that says "Welcome aboard!"
    - If one or more of the criteria are not met, trigger the same "headshake" effect as explained above. Additionally, any input fields that are incorrect must be indicated with a red border.
    - Criteria:
      - Username: valid if it is between 6 and 10 characters (inclusive)
      - Password: valid if is at least 5 characters and contains at least one number and at least one letter
      - Confirm Password: valid if it matches exactly the Password field's text

## ScrollFire Page Title

- The page title (text in the browser tab) must change to indicate which section of the website is currently in view:
  - The default title must be ***WebsiteName – Welcome***
  - When you scroll into the About section, the title must be ***WebsiteName – About***
  - When you scroll into the Products/Services section, the title must be ***WebsiteName – Products*** or ***WebsiteName – Services***
  - When you scroll into the Account section, the title must be ***WebsiteName – Account***
- Hints: refer to Lab 7 Exercise 2 and Lab 9 Exercise 2 for assistance

## Responsiveness

- You must create an additional CSS file called "resp-styles.css"
- In this file, use CSS media queries to make the site responsive
- You must have a media query for
  - tablets / small laptops, for screens that are at most 1050px wide
  - phones, for screens that are at most 650px wide
- Use the guidelines provided in Lecture 10 when adding the responsiveness, i.e. single column for phones, one or two columns for tablets, multiple columns on desktop monitors
- Resize your browser window to test the different sizes – no need to use actual devices or even emulators
- Hint: change the background colour of the whole site while you are working on this so you can clearly see when each media query triggers as you resize the browser window
- NOTE: making a website completely responsive is very challenging. Try your best with this but if you can't get some of the sections to look good on all device sizes, that is ok. I want to see that you've tried and made some portions responsive but don't worry if you can't finish getting all of it to work perfectly!

## References

For this course, you are **required** to use copyright-free images only. This means you will not be allowed to do a simple Google Image search and use any image that comes up on there. Marks will be taken off if you use images that are copyrighted.

The following websites are acceptable and encouraged as they have many copyright-free images that are high definition and free to use!

- Pexels <https://www.pexels.com/>
- Unsplash <https://unsplash.com/>
- StockSnap.io <https://stocksnap.io/>
- Negative Space <http://negativespace.co/>
- Life of Pix <http://www.lifeofpix.com/>
- Cupcake <http://cupcake.nilssonlee.se/>
- Foodiesfeed <https://foodiesfeed.com/>

If you find an image on a *different* website that you think is copyright-free, it is **your responsibility** to find the terms and conditions regarding copyright. Sites will usually have a page that explains their copyright policies. If you use an image from a site other than those provided in the list above, you will have to find the site's copyright policy and keep track of the link to that policy. This link will have to be included in your References section and/or in the submission on OWL so the TAs can determine whether or not your image is indeed copyright-free. Do not ask the instructor or TA to find this copyright policy for you. Failing to find a copyright policy will result in deducted marks. The best option is to just use images from the sites above so that you won't have to look up their policies!

Example: The Pexels policy is found here: <https://www.pexels.com/photo-license/>  
Note that Pexels is one of the acceptable sites listed above so you don't have to provide this license link, but this is an example of what most stock photo sites will have somewhere on their website, but often with different policies.

## Submission

1. Go through this document again and verify that you completed the assignment exactly as instructed.
2. You **must** upload all your webpage files to GAUL (not Panther) via FTP.
  - a. Use WinSCP, FileZilla, or another FTP program.
  - b. Login to GAUL using your Western username and password and port 2033. The host name should be sftp://cs2033.gaul.csd.uwo.ca (OR select SFTP in the protocol box and omit this prefix from the host name).
  - c. Transfer your exam website into the root area of this web server space, maintaining the correct folder structure.
3. Verify that all the files uploaded properly.
  - a. Open the following link (replacing **username** with your Western username): <http://cs2033.gaul.csd.uwo.ca/~username/exam/>
  - b. You should see your main webpage load there. If you don't, verify the filename is index.html and retry the previous step to upload the files.
4. Submit the working link on OWL.
  - a. Navigate into the "Take-Home Exam (Final Project)" page in the Assignments tab on OWL.
  - b. Copy the link of your GAUL exam folder into the submission text box (replacing **username** with your Western username):  
<http://cs2033.gaul.csd.uwo.ca/~username/exam/>
  - c. Submit the assignment on OWL. Do not just save it and leave. Ensure that it is submitted! Check your email right away and look for the automatic OWL email verifying your submission. Keep this email in case of any discrepancy.

Due: Friday, April 17, 2020 at 2pm.

There will be strict penalties for submission mistakes so make sure you follow these instructions carefully.