

# Week 2/3 – Website Development

## Lab Assignment – 100 pts

Due 11:59 pm October 12, 2020

### Objectives:

1. To practice collaboratively working on parts of a whole.
2. To learn about how the components of a webpage, namely HTML and CSS combine to make a functioning site. (Week 2)
3. To learn about how JavaScript can add interactivity to a website. (Week 3)

### Procedure:

#### Part 1 - Getting set up:

1. Go to the Team Assignment link on BBL in the lab folder for your lab. Make a note of your session and breakout room number as well as your partner(s). In the case of a lab with an odd number of students there will be one team of 3.
2. Enter your breakout room when instructed to do so. Introduce yourself to your partner. You will work together for two weeks. In particular, discuss any previous experience with web development, html, css, image editing, etc.
3. Choose one person to download the Lab Answer sheet. In this lab, both of you will add answers to this one answer sheet, only one answer sheet will be turned in for the lab.
4. Discuss who will be the 'developer' responsible for the content, structure and html files and who will be the 'designer' responsible for the look and feel, css and image files. If you have a third partner, two will be designers and one will be a developer.
5. Enter these roles and your names on the Lab Answer Sheet (Google docs is great for this). Enter the lab # and your breakout room number.
6. All team members will go to repl.it and join the [CI101WebDev2020](#) Team.
7. One person will 'fork' the Lab 23 project.
8. Once you have your own version, you will invite your partner(s) via the Share link in the upper right of the repl.it interface. This will allow you to be working in the same project on different computers.
9. You are now set up and ready to start part 2!  
In the answer sheet each of you should write a short paragraph on what your role is and why/how it was decided that that would be your role.
10. Raise your hand and let your TA know you are finished with part 1.

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*Fork: In software engineering, a project fork happens when developers take a copy of source code from one software package and start independent development on it, creating a distinct and separate piece of software. --Wikipedia*

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## Part 2 – Planning and Designing:

1. There are three different restaurants to choose from. You will make ONE website for ONE of these restaurants (Chinese Food, BBQ, Bakery). Discuss and reach an agreement with your partner on which one you will do. Enter your choice in the answer sheet along with a summary of your reasons for choosing it.
2. Now that you have your restaurant choice, you will look at all three of the sample layout pages with your chosen restaurant in mind. Try not to be swayed by the example content in each. Discuss the pros and cons of each and decide which one you will use for your site. Enter your choice along with reasons in the lab answer sheet.
3. Open your chosen layout in repl.it and look at the html code on one side and the resulting web page on the other side. Use this view to answer the following questions about html with your partner:
  - a. What code indicates the beginning of the navigation bar? The end of it?
  - b. On the website, some heading words are centered and in a bigger, bolder text. Find the html code that seems to make this happen. Explain how you think it works.
  - c. There are many `<p>` tags in the document. What do you think p stands for in this language?
  - d. There are html tags that indicate the overall structure of the document. What tags provide the structure for the header and footer sections?
  - e. What role do you think the article tag plays in the structure of the site?
4. Open your chosen layouts CSS file (you can find the name of it in the head section of your html file in the link tag) and use it to answer the following questions about CSS with your partner:
  - a. What part of the html file is being styled by the first rule in the CSS? (A rule is what is contained within the { })
  - b. Background-color seems obvious, so what do you think 'color' does? (Hint, try changing the value then seeing if you can determine what changed on the page.)
  - c. Review the information on this page about the [Box Model](#) (If you are not both already familiar with it). What must be true about margins if we must set them to 0?
  - d. If you look carefully at all the times a width or size is indicated, sometimes the unit of measurement is px and sometimes it is %. What do you think the difference is?
  - e. How many ways are colors defined in your css file? Which seems easiest? Which seems to provide the most color choices?
5. With your partner, make broad stroke decisions about the layout of your site and the look and feel of your site. Each of you will be working within your respective files (html and css) making the detailed decisions, but you must respect the team choices when you do. On the answer sheet sketch out your overall design before you start coding. When you are done, raise your hand and have your TA check it out before moving on to the next section.

## Part 3 – Coding:

### Structure and Content (HTML)

You have a content file and a sample html file to work with. You may want to delete the html files you are not going to be using. You should delete the existing index.html page and rename your working html file as index.html.

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Add a meta tag to the head section to provide authorship information. You can use the viewport meta tag as an example. Create one that has 'author' as the name and your name as the content.

Change the title in the head section to something informative for the visitor. This is what will show up on the tab in the browser.

Make sure that the link to the css page is accurate. Check with your designer and be sure the link will go to the css file they are creating or modifying.

Set up your navigation:

Decide what each link will be. This is what the visitor will click on to go to the different pages in your site.

Choose which page will be the "first" or "index" page of the site. This is the page visitors will see when they enter your site. Choose one of the content areas (Menu, Catering, or About).

Write the <a> tags to go to each of the pages. Even though you have not created them yet, this is when you will decide what they will be named.

You can now start adding content to the main part of the page. Use <h2> for headlines and <p> for normal content text.

The <p> tag places white space above and below the content. This creates a nice visual space between blocks of text. If you want to have lines of text with no vertical space between them, you can use the break tag, <br /> to force line breaks where you want them.

You are likely to want to add images to your site. This page on W3Schools is about [HTML Images](#). You can review it if you do not know how to write the <img> tag. Be sure to work closely with your designer to make sure you are only adding the images the designer wants added and where they want them to be.

Add information in a footer section on your site to clearly indicate that this is not a real restaurant and is in fact an academic exercise. This website cannot/should never be published to the web in any way! Keep it in the repl.it classroom please.

Keep working with your partner to make your shared vision a reality.

After completing this lab, complete the Developer SII questions on the answer sheet.

### Look and Feel (CSS)

You have sample css files and a folder of potential images to work with.

You can choose specific colors for your site from [VisiBone's ColorLab](#). You may choose background colors for any or all elements of the page as well as font and border colors. Some colors are easier to see on other colors. You can use the color boxes on VisiBone to determine readability.

You can choose to use images that have been provided and/or images you find online. We will not be citing them because we have so little time but mainly because we will not be publishing the site.

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*File Naming Rules for the Web*

*No spaces*

*No capital letters*

*No special characters*

*Keep it short but make it meaningful*

*The first page will always be named index.html regardless of its contents. The other pages should be named so the contents are easily discernable.*

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Your site will need a banner and images to go on each page. Raw images often need to be edited for size, cropped to focus on something or to remove distracting background elements. You will determine the appropriate size and style for all images used on the site. Be sure to communicate with your partner what images you want to use (putting them in an images folder is a good practice) and where you want them to go on the site.

If you want to make an image the background of any element, you will include that in your CSS. (See `narwidenar.css` for an example).

You will need to make the specific choices for font families to use. You will notice that the font-families are a comma separated list. The computer will use the first font on the list that it finds in the OS. Therefore, it is important to always end the list with a generic font type like sans-serif, monospace or serif.

Keep working with your partner to make your shared vision a reality.

After completing this lab, complete the Designer SII questions on the answer sheet.

### What to Turn in:

Nothing this week. Make sure your answer sheet is accessible to both partners. You will add to it next week. Instructions for week 3 will be posted on Blackboard in week 3.

### How you will be graded:

Your answer sheet must be submitted to Blackboard on time for full credit to be possible

You will be graded on the completeness of your answers on the answer sheet. The functionality of your website will also be graded, but at 25% of the overall grade.