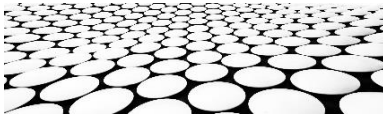SEG3125 User Interface Design and Analysis

MODULE 4 – TUTORIAL/LAB

Design of a Service Business Site Using Design Guidelines

GOALS

Design principles help us design sites that will make users productive. The purpose of this laboratory is to build a site for a service business that will respect the design principles presented in the book *Design of Everyday Things* by Dr. Norman. As we saw in the videos, these principles are visibility, feedback, affordance, mapping, constraints and consistency.

During this lab, you will:

- Learn a JavaScript framework, Bootstrap, to make website design easier with a more modern and standardized "look".
- Develop a semi-static site (responding only to the components of Bootstrap) in which you pay particular attention to the principles of design.

PLEASE NOTE: As with the first 3 laboratories, I offer 2 levels of requirements. Level 2 requirements are always optional, but can stimulate you to learn more.

SUBMISSION DEADLINE

- Tuesday, June 16th, 11:30pm

SUBMISSION METHOD

- In Brightspace, the Module 4 checklist contains a link for your submission.
- Do not submit files. <u>Submit a link to your web page</u>. If you are submitting before the deadline, be sure to enter FINAL SUBMISSION when you are ready to have your submission evaluated.
- *ATTENTION: Any code or even "small piece of code" that you take from a website such as stack overflow or other should be accompanied by a comment that recognizes the source. In your submission text, you must indicate "Code for X inspired by ………. (html link) ".*
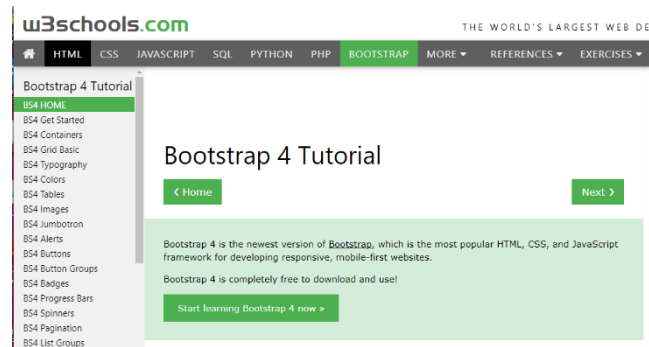
INSTRUCTIONS / TUTORIALS

We are continuing our exploration of the very popular HTML/CSS/JavaScript technology for website construction. This week we will be using a framework called Bootstrap. Next week we will continue with JQuery, as Bootstrap and JQuery are often used together. But for this week, we're only focusing on Bootstrap.
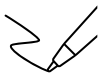
You have seen so far that HTML/CSS is used for the design of your web page and that JavaScript allows actions to be performed (modification of the DOM according to events).

Bootstrap is used to help write HTML, having already pre-encoded several styles in a CSS style sheet that you must import into your HTML file, and also having pre-programmed JavaScript scripts in a script file that you must also import into your HTML file.

Bootstrap has therefore already done part of the job for you ... It offers standardized styles for colors, buttons, certain structural patterns, etc. All of which results in a prettier website with less effort. Now that you have worked with basic HTML/CSS/JS in the last 3 labs, you will be able to better appreciate what Bootstrap offers.

I suggest you use, once again, the w3schools.com site, to explore what is possible to do with Bootstrap 4. You can also use the code that I provide you (see the *Starting point* section) which contains several snippets of code with links to the appropriate sections on the w3schools site.

DESIGN

In this laboratory, you must choose a service business from the following 2 options:

1. Hairdressing business
2. Bicycle maintenance and repair business

What is common to these businesses is that:

- There is a physical place (address) to go to
- You must make an appointment for a service (haircut, brake repair)
- Several services are offered (long cut/short cut, tune-up, repair)

If you have another idea for a service business that also has these characteristics and that you prefer to work on, you can ask about it on the forum, and we can accept it (or not… it depends what it is).

I strongly suggest that you make paper sketches of your site first. As mentioned in the video on colors, you have to think monochrome first, even if later you want to include colors. Thus, the paper sketch is the best way to quickly suggest several ideas in monochrome.

Once you start programming, be sure to pay close attention to your choice of colors and fonts so that they reflect the image you want to project for your site. One of our themes this week was visual communication. Ensure good visual communication.

You don't know where to start? Get inspiration from existing sites by looking at what you like and what you don't like in terms of layout, colors, fonts, text alignment. Ask yourself if these sites offer good visibility and good affordance, for example. Ask yourself what is the aesthetic consistency of the site and what creates this consistency. Is the text readable (look at the alignment)?

The sites below are just a few examples.

https://www.atelier-velo.com/ (in French, but still you can see the layout, use of color and fonts)
http://www.cycosport.ca/
http://bikemobile.ca/
https://hairrepublic.ca/
https://metcalfe-barber-shop.business.site/
https://hairdynamic.ca/

STARTING POINT

I provide a code file containing multiple Bootstrap components (in a mixed-up order). You can see the rendering here. I suggest you browse through this code in which I have written several comments and put links to appropriate sections of the tutorial offered by w3schools.

This is only a starting point… your site should reflect your design choices.

CODING

You must generate a web page allowing a user to choose a service, a date, and provide his/her personal information to reserve this service. We will continue this site next week using JQuery to add payment information validations, etc., but this week, your focus is ONLY on the design of your page, on the principles of design and on the use of Bootstrap for the implementation on your page.

You have to make a single page, because we will think about a "mobile first" design which aims at presenting the information in a vertical way in which a user scrolls down for more information. Your site must not contain lateral navigation (no tab). This is definitely not a general design rule, this is only a constraint for this laboratory to force you towards a vertical design, better suited to mobile phones.

Level 1 requirements (Mandatory)

I will use the word business to refer to the hair salon or bike repair shop. Your web page (one page) must comply with the design principles listed below.

Visibility: *Where am I? What can I do from here?*

The following items must be present and easily visible (or accessible):

- Information:
  - on which site the user is (logo, image, or company badge)
  - where to go (business address)
  - the services offered and their prices (the user wouldn't want bad surprises once at the shop or salon)
  - who are the experts? (the user wants to be confident and to know a little more about hairdressers or mechanics)
- Actions
  - Selection of a service
  - Selection of a date and time
  - Enter their contact information

So this is where a good part of your design should take place. You have to think about how to organize the information, and how to present it.

Affordance: *I recognize what I see and know what to do.*

The user must easily understand what to do and not only see what he/she can do:

- use standard components (buttons, lists)
- put "tooltip" for the elements if necessary (small explanations)

Association: *I understand what the result of my actions or choices will be (before doing them).*

The user must easily understand what the result of his actions would be before taking the action.

- Use photos to show short, medium, long, or hair color cuts.
- Use photos showing the portions of bikes supported by each service (brake repair, puncture, maintenance)

Consistency: *The elements that I see are consistent within the page, and consistent with the standards that I know.*

- Aesthetic consistency: Make sure you keep the same choices of fonts, colors, in your page. CAUTION: This is where you have to think about the idea that "*Fonts have moods*". Bootstrap uses the Helvetica Neue font, but maybe it doesn't suit your business. For example, is it a super-serious and fast repair workshop or a workshop with a more youthful and relaxed look where we are going to have a coffee while waiting for our bike?

- Functional consistency
  - external: using standard Bootstrap components gives you this consistency of known functionality (lists, buttons)
  - Internal: Bootstrap already suggests color choices to express different types of messages (success, warning, danger, etc.), you can keep these choices if they seem appropriate for your site. If not, you can change them, and then stay consistent.

There will be 2 remaining principles (feedback and constraints) to explore next week.

Level 2 Requirements (Optional)

You already know Bootstrap, why not do both sites, hairdresser and bike. What will be interesting is to see the reuse of your components. Would the choice of colors, fonts, images be sufficient to have 2 different sites but which would have the same structure (same navigation and structuring of information)? If you do both sites, provide two links in your submission.

☆☆☆
EVALUATION

- This laboratory is worth 3.5%.

- Any student who has followed the requested design principles (visibility, potential, association, aesthetic consistency, functional consistency) and put an effort into the design will be granted 10/10.

- Failure to provide sources of code inspired by code seen online will result in a score of zero.

- Any delay beyond the deadline will have a penalty of 10% per day.

QUESTIONS

- You can ask your questions in the Module 4 discussion forum on Brightspace.
- There is a consultation schedule for the laboratories in the organization section of the course on Brightspace. That will tell you when a teaching assistant is available on the forum or by zoom.
- You can also send your questions directly to the TA you are assigned to. Refer to the lab consultation schedule to see which TA you are assigned to.