THOMPSON RIVERS UNIVERSITY

Computing Science Department

Web Presence Non-Profit/Small Business Project

Course: COMP 2680 W2021

Date due: **April 13, 2021 (Start of Class) (Final Submission)**

Weight: 30% total of final mark.

NOTE:

      ZERO [0] mark for:

- **Late submission**
- **Draft submission**
- **Email submission**
- **Wrong files submission**

2. In order to obtain a passing grade on the project component of this course, a MINIMUM of 60% (18 out 30) is required. Please refer to course outline.

1. Web Page Development for Non-profit Organization or Small Businesses

1.1 Purpose /Objective

You will be able to develop and showcase your web design skills with an actual organization. The contacts that you make with clients when you demonstrate your web presence prototype will be very rewarding. You will be designing something that you can present to a company and you will have fun in the challenge that this will create. You will learn to apply the knowledge and skills you have learned during this course by either creating a brand new web site or updating an existing web site with a real potential client. This would also provide good practice for improving your interviewing skills. Ultimately, you will practice your professionalism in handling the relationship and the rewards will be great. Additionally, this would provide networking contacts with local, regional, provincial, national or international businesses and communities depending on whom your contacts are.

1.2 Why a Web-based project?

You can learn programming and Information Technology by working on just about any kind of project - computer games, scientific, accounting and other applications. We think a good learning project should be fun, useful and real. It should be something you'll be proud to show to potential employers by including it in your portfolio and curriculum vitae. It should demonstrate your technical mastery, creativity and overall understanding of the software development process.

1.3 The Web was picked as the context for most of your learning project because:

- **The Web is hot!** It's everywhere. It's hitting every institution and organization like a tidal wave. It will define the way we live for the next century just as the internal combustion engine has defined how people lived in this century. Best of all, you can still get in on this technology at the ground floor and that is exciting!

- **The Web is cool!** You can do lots of cool things on the Web. Your imagination and persistence are the only limits! This technology is literally changing by the hour.

- **The Web is green ($$$)!** There are thousands of jobs for web developers. Proficiency in web development is your gateway to a hot job. This project is your best chance to learn how to do it.

1.4 Before We Begin

There are some critical factors for success. They include

- **A positive attitude about learning by doing.** This is the single most important factor. If you believe that you can learn web design like you learn History (i.e., by listening to someone talk or by reading a book, then you will likely **FAIL**). Remember that the best way to learn web design is by **DOING** it.

- **Willingness to explore, especially into cyberspace.** Just about everything you need to create a successful product can be found on the web. There are examples you can reference, graphics you can download and more. If you're not motivated to explore, you'll only hand in a mediocre product.

- **Hard work.** Last but not least, you need to work hard, and you need to work smart.

1.5 Setting the Scene

Just about every organization or business presently has a web presence to promote their products, attract investors and provide services. Professionals use the web to promote their expertise. The possibilities are endless.

1.6 Goals

(a) Communication

- Develop verbal, listening, writing and reading skills

(b) Research

- Develop information on an actual organization
- Use interviews, the Internet, resource books and other research techniques

(c) Positive Professional Attitude

- Understand, analyze and diagnose business issues
- Demonstrate an understanding of the Company's needs
- Use collaboration strategies to ensure development of an application
- Work to meet established goals

(d) Work Ethic

- Schedule time and resources to meet time lines

(e) Creativity

- Use a broad scope of creativity in modeling a business and generating an application

(f) Consulting & Entrepreneurial Skills

- Gain insight into a functioning business operation
- Present a completed prototype to a real business
- Simulate a process similar to that of a consultant
- Simplicity, functionality, and ease of navigation within the site are key and critical factors to be borne in mind when doing this project.

(g) Problem Solving and Troubleshooting

- Isolate and solve application problems in code, design and development

(h) Stress Management

- Learn to balance your own as well as your peer's interests, goals and expectations
- You should strive to be happy and balanced, not under stress and exhausted

1.7 Monitoring Your Progress

Develop a project plan should always be front and center – keep a copy displayed somewhere where you can constantly monitor and review. The effectiveness of your plan will determine the proficiency and success of your web application.

A warning about a common planning pitfall is that in software application development, minor tasks may require extensions in deadlines. Over the course of your project work, those delays in deadlines can turn into serious time problems. Monitor your progress frequently to prevent this from happening. You should identify where and how you will make up for even those minor deadline extensions, as this web project has a zero extension of submission deadline. Time Management is key and fundamental. Waiting and procrastinating till the eleventh hour is going to greatly affect the quality of your web project.

2. Deliverables and Details

2.1 9 Web Sites in total are required from 9 different domains as listed below.

- **3 Web Sites – Similar sites to your site, re: similar business nature**
  - o Links to three web sites like the site you are planning to build for the business. Give a two-sentence description what you like about each site.

- **3 Web Sites – Downloadable Sites**
  - o Links to three sites from which you can download free components for use in your project web site for the business (i.e., graphics, sound files, etc.). Give a two-sentence description what you like about each site.

- **3 Web Sites – Technical Information**
  - o Links to three sites for technical information on technologies you'll be using for the project web site you build for the business. (i.e., HTML5, CSS3, JavaScript, etc.). Give a two-sentence description what you like about each site.

2.2 Cross Reference Page

- At the completion of the project, you will be asked to present a web page that links to all requirements to aid in the marking of your web site. Now is a good time to begin that page by creating a list of all requirements and when completed, link the text to the location on the project web site.

- Each item on the cross-reference page must be a hyperlink, named intuitively, to the associated item within the web site, pointing to the correct web page, where the requirement is met.

- **Each deliverable requirement that your web site fulfils must be appropriately commented in the page source code, failing which the respective deliverable requirement will not be graded and given a mark of zero.**

- Your web site must demonstrate the appropriate, relevant, and functional use of each of the required features.

- The cross-reference page link **MUST** be placed on Web Site Home Page as a navigation link listed on the far most. It **MUST** be part of the project web site.

- **Note:** When submitting a copy of the completed web project to the business or organization, remove the link to the cross-reference page. The link to the cross-reference page is only required for the copy of the web project that is submitted to me for marking and grading purposes ONLY.

2.3 Web Site Design

- It is important for you to develop a logical and systematic flow of the web site. The flow essentially refers to how a user will navigate through the site – how the pages will link to each other. Simplicity and ease of navigation throughout the site is fundamental without getting lost. Wherever the user is on your site, it is critically for them to come back to your homepage with just one click.
- Your web site must enhance/promote ease of usability for your web users, as usability is all about people and more importantly how they understand and use stuff. It has nothing to do with technology. Compared to technology, most people change very slowly.
- Take a look at: https://www.youtube.com/watch?v=yUQRbqc2qtY where a monk gets help as he faces challenges to use the newfound "book."

2.4   **Minimum** Requirements Features that **MUST** be demonstrated.

2.4.1 HTML5

a) Appropriate HTML5 **section elements** tags, including the use of semantic HTML5 elements used in sectioning.

b) Images both static and clickable.

c) Use of appropriate special characters.

d) Use of appropriate <meta> tags.

e) Home page footer, use of the <address> element, and to indicate dynamically when the web site was last updated or modified by using BOM object.

2.4.2 CSS3

a) Format the appearance of paragraphs, lists, headers, background images, tables, forms with the use of appropriate CSS3 selectors.

b) CSS3 contextual selectors (e1, e2, e3; e f; e > f; e + f) and at least two other attribute selectors, besides class and id attribute selectors.

c) CSS3 styles for color (RGBA & HSLA). Demonstrate that you understand the concept of progressive enhancement.

d) Appropriate use of **dynamic** pseudo-classes to highlight hyperlinks states of link, visited, active, hover, including focus and two **structural** pseudo-classes: first-of-type and last-of-type.

e) Appropriate use of CSS3 background styles (background size, background-clip, background-origin, etc.), padding, margins, borders, including the use of rounded corners.

f) The user of a drop cap created with CSS3 is to be implemented at an appropriate place on your home page.

g) Use of CSS3 page layout techniques with grid, flex, float and positioning **MUST ALL** be demonstrated. The use of framework for layout is discouraged due to too many unknown factors.

h) CSS3 text, box shadows, transform, rotate, opacity features must be applied appropriately on your web site.

2.4.3 Web Form

a) Appropriate form elements including the use of HTML5 form widgets.

b) Appropriate CSS3 styles applied to Web Forms.

c) Use of inline form validation with the focus pseudo-class.

2.4.4 Web Tables

a) Use of web tables to depict relevant appropriate business related mut be demonstrated.

2.4.5 Multimedia

a) Appropriate use of sound and video elements on your site. Note: Ensure audio and video clip are of no more than 30 seconds duration.

b) Appropriate use of CSS3 transitions and animations that enhances functionality of your website.

2.4.6 JavaScript

a) Use of appropriate variables, arithmetic, comparison and logical operators, subroutines, functions, arrays, conditional statements, conditional operators, running time commands with system clock.

b) Use of system date (example: clock, countdown timer to an event) on your web site.

c) Validating appropriate form input by using JavaScript functions (client side).

d) Use of JavaScript alerts for validation purposes.

e) Use of BOM/DOM in emulating events using event handlers.

2.4.7 Responsive Design

a) Your web site design **MUST** implement each of the following responsive techniques on different pages on your web site:

    i)   **CSS Grid** Layout using the display: grid

    ii)   **CSS Flex** Layout using the display: flex

    iii)   CSS Positioning

Note: The use of third party grid/flex layouts is **NOT** allowed.

b) The use of contextual selectors to control sub level menus, including the use of a navicon image for mobile design is required.
Note: For small screen sizes, be mindful of number of menus and sub menus that are visible by hovering on the navicon image.

c) Responsive Images

d) Responsive Web Form

2.4.8   Call to Action (CTAs)

a) Your website must include at least **THREE** CTAs located on the homepage of the website.

What is a CTA?

A **call to   action** (CTA) is a prompt on a **website** that tells the user to take some specified **action**. A **call to action** is typically written as a command or **action** phrase, such as 'Sign Up' or 'Buy Now' and generally takes the form of a button or hyperlink.

Three Reasons a Call to Action is Important.

- o   Your call to action (CTA) is the chance to motivate your audience to take real steps toward becoming a customer or client, i.e. CTAs motivate your sales funnel
- o   Customers Want Them!
- o   CTAs boost the success of digital advertising.

Some Sources of CTAs:

https://www.vizioninteractive.com/blog/3-reasons-call-action-important/

https://blog.hubspot.com/marketing/call-to-action-examples

https://shanebarker.com/blog/call-to-action/

https://thrivehive.com/website-call-to-action-button-examples/

https://www.referralcandy.com/blog/call-to-action-examples/

https://adespresso.com/blog/call-to-action-examples/

https://www.wordstream.com/blog/ws/2014/10/20/call-to-action-examples

https://www.impactbnd.com/blog/call-to-action-examples

https://www.crazyegg.com/blog/call-to-action-examples/

https://blog.wishpond.com/post/115675437275/call-to-action-examples

2.5 Web Project Documentation (PDF File Format ONLY.)

- You web project documentation **MUST** include the following elements in **PDF** format. **Any other file format will render a zero mark for your Web Project Documentation**
    - o Front page that includes the following, which **MUST** be listed in the following order:
        - o Web Project Documentation (As a title)
        - o Name of the Web Site Business
        - o Your full name (First name, Last Name)
        - o Your student Id,
        - o Course name
        - o Semester
        - o Submission Date
    - o A business statement stated clearly in a paragraph of at least 100 words.
    - o Project objectives stated clearly in a paragraph of at least 100 words.
    - o A brief description of how the business would benefit from your web site design in a paragraph of at least 100 words.
    - o Any other appropriate relevant documentation pertaining to your site that you wish to include. **If this is included, the heading MUST be: Additional Comments.**
    - o A footer on your Web Project Documentation.
        - o Bottom left: Page number in this format: Page 1 of 9.
        - o Bottom Right: Your First Name_Last Name_WebProjectDocumentation_W2021.
    - o Link your Web Project Documentation to your cross-reference page as the last clickable item.

        Note: Marks will be deducted if
        - **your Web Project Documentation pdf file is not hyperlinked from your cross-reference page.**
        - **the listed items are in different order or not fulfilled.**

2.6   Deliverable Submission

o Web project submitted on Moodle. Create a folder, with your Last Name & First Name.

NOTE: Ensure your home page is named index.html. Marks will be deducted for non-compliance.

o Ensure that your cross-reference page has:
  o A title named: Cross Reference Page
  o From the Cross-Reference Page, navigation to home page and top menu links is required.
  o Cross-Reference Texts and Links clearly labelled as outlined under the heading Deliverables and Details as outlined in this document. For e.g., 2.4.1 d: Meta Tags as a header, followed by a description: Meta tags used appropriately in head elements to identify charset.
  o Within the page source code, a comment with proper labelling indicating the requirement met for e.g., 2.4.1 d.
  o **Note: If a requirement is not mapped from the cross-reference page to the respective web page and appropriately commented in the source code, the requirement would not be graded and a zero mark would be given.**
  o Ensure all hyperlinks are functional to various parts of the project. **If a broken link is encountered, the requirement would not be graded, and a zero-mark credited.**

A Sample of a Cross-Reference Page is Illustrated Below

Cross Reference Text and Links

2.1: 9 Web Sites
2.1.1: 3 Web Sites – Similar sites to my site, re: similar business nature
2.1.1.1: Danilo And Sharon - I like the overall theme of this website (elegancy & simplicity); it is showcased through black and white colors, small and beautiful fonts, and I also like the video animation used at the top of the home page.

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2.4.1 b) Inline Images
2.4.1 b.I): Inline clickable image (ex: the header img of the pink flowers)
2.4.1 b.II): Inline static image (ex: a photo within the table of images)
2.4.1 c) Special Characters
Use of appropriate special characters (copy symbol in footer)
2.4.1 d) Meta Tags
Meta tag used appropriately in head element (to identify the charset used)
2.4.1 e) Footer
Footer on home page showing when web site was last modified

Clicking on the link listed below 2.4.1 d) Meta Tags
Meta Tags used appropriately in head element (to identify the charset used)

It will direct to the correct page on your web site. Then in your code, the above requirement must be clearly identified as an appropriate HTML5 or CSS3 comment as shown below:

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>

```
<!-- This fulfills requirement 2.4.1 d)-->
<meta id="met" charset="utf-8" />
```

Notes: Links above are dummy used solely for illustrating.

2.7   Marking Criteria Guide

Web Presence Project Marking Guide	Points
9 working Web Sites, including a brief description of each.	5
Cross Reference Page with working hyperlinks to all requirements, including Web Project Documentation file.	35
Proper Web Site Documentation with all requirements in PDF file format (10); including web project proposal submission. (5)	15
Web project development/design (HTML5) and appropriate content.	5
Web project development/design (CSS/JS/multi-media) and appropriate content.	15
CTA's properly implemented and meaningful.	5
Overall web site development/design including layout, appropriate content, and responsiveness.	20
Total Maximum Possible Points	**100**

Warning:

Dummy text (example: lorem ipsum or similar in nature dummy text **CANNOT** be used for project content under any circumstances. You must make a conscious effort to write appropriate text relevant to the nature of the web site business. This also includes all images and graphics must be relevant to the nature of the web site business. **Doing so will result in a zero mark.**

Web Project cannot be created by using any third-party professional software, including bootstrap or code snippets off the Internet or any resources (online or hard copy resources). **Doing so will result in a zero mark.**