THOMPSON RIVERS UNIVERSITY

Computing Science Department

Web Presence Non-Profit/Small Business Project

Course: COMP 2680 W2020

Date due: **April 9, 2020 (Start of Class) (Final Submission)**

[ABSOLUTELY NO LATE SUBMISSION, as this is the LAST day of class for this course!!]

Weight: 25% total of final mark, 5%/100 is due on Feb 26 and another 15%/100 is due on March 18. (See 2.8)

NOTE:

1. **ZERO [0] mark for LATE submission or submitting the wrong files, NO EXCPETIONS.**

2. In order to obtain a passing grade on the project component of this course, a MINIMUM of 60% (15 out 25) 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

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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**
     - Links to three web sites similar to the site you are planning to build for the business. Give a one-sentence description what you like about each site.

   - **3 Web Sites – Downloadable Sites**
     - 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 one-sentence description what you like about each site.

   - **3 Web Sites – Technical Information**
     - 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 one-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 to the associated item within the web site and include a description of what the link is going to show. Your web site must demonstrate the appropriate, relevant and functional use of each of the required features.

   - The cross-reference page must be accessible from the Home Page of the web site. It must be part of the project web site. The cross-reference page should be the last thing to be completed by you.

   - **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 purposes.

   2.3 Web Site Design

   - It is important for you to develop a 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.

   2.4   Minimum Requirements Features

   2.4.1 HTML5

   a) Appropriate HTML5 tags, including use of HTML5 structural tags, <a>, <p>, <hn>, <blockquote>, <ol>, <ul>, <dd> to name a few.

   b) Inline images both static and clickable.

   c) Use of appropriate special characters.

   d) Use of appropriate <meta> tags.

   e) A footer on the home page indicating when the web site was last updated or modified.

2.4.2 CSS3

a) Use CSS3 to format the appearance of paragraphs, lists, headers, background images, tables, forms.

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

c) Use of CSS3 styles for color (RGBA & HSLA).

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

e) Use of CSS3 background styles (background size, background-clip, background-origin, padding, margins, borders, use of an appropriate border style, use of rounded corners.

f) Your home page should have a drop cap created with CSS3.

g) Define document content with the class and id properties and create styles for them.

h) Use cascading styles to control page layout by using either grid, flex, float, positioning. The use of framework for layout is discouraged due to too many unknown factors.

i) Use of CSS3 text and box shadows.

j) Use of CSS3 transform rotate feature.

k) Use of CSS3 opacity applied to two images to appear semi-transparent.

2.4.3 Web Form

a) Use of appropriate form elements including some of the new HTML5 form elements.

b) Apply appropriate styles to Web Forms.

c) Apply inline form validation by using the focus pseudo-class to appropriate form elements.

2.4.4 Graphical Web Tables

a) Use of graphical web tables to depict relevant data that is appropriate to the business.

2.4.5 Multimedia Minimum

a) Use sound, video somewhere on your site. Ensure these are of short duration preferably about 30 seconds.

b) Use of transitions and animations

2.4.6 JavaScript

a) Use of 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 form input by using appropriate JavaScript functions.

d) Use of JavaScript alerts for validation purposes.

e) Use of BOM/DOM in emulating events through the use of event handlers.

2.4.7 Responsive Design

a) Your web site design should 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

b) The use of contextual selectors to control sub level menus, including the use of a navicon image for mobile design is required.

2.4.8 Call to Action (CTAs)

a) Your website must include at least three CTAs, in particular, on the homepage of the website. 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/

2.5 Web Project Documentation

- You must include in your web project documentation the following elements in pdf format.

    - Front page (with your name(s) if work in a team, student id(s), course name and date)

    - A paragraph entailing the business statement in about 100 words.

    - Project objectives and a project description stated clearly.

    - A brief explanation of how the business would benefit from your design in about 100 words.

    - Any other appropriate relevant documentation pertaining to your site that you wish to include.

2.6 Demonstration Evaluation Form

- Design a short evaluation form that the business would complete.

- The evaluation form should include opportunities for feedback on your design, its usefulness, and the business personnel's overall impression of your design.

2.7   Deliverable Submission

2.7.1 Guidelines for Submission

a. All deliverable must be placed on to a USB. Create a folder, with your Last Name & First Name. On the outside of your folder, create and save a text file, indicating the file name for your home page.

   NOTE: For consistency please ensure your home page is named index.html.

b. Ensure that your cross reference page is clearly numbered, e.g., 2.4.1 d) and all hyperlinks are functional to various parts of the project. **This is KEY!!**

c. The entire project submission MUST be on a single USB.

2.8 Marking Guide

Web Presence Project Marking Guide	Points
9 Web Sites	5
Cross Reference Page with hyperlinks to all requirements	35
Web Site Documentation	15
Web project development/design (HTML5) – Phase 1	5
Web project development/design (CSS/JS/multi-media) – Phase 2	15
CTA's properly implemented	5
Overall web site development/design including layout and responsiveness	20
Total Possible Points	**100**

2.9 Deliverable Guide: Checklist

1. Web sites (3)

2. Sites to download free components (3)

3. Sites for technical information (3)

4. Required HTML5 Features

5. Required CSS3 Features

6. Required JavaScript Features

7. Required Multimedia Features

8. Required HTML5 validation

9. Cross Reference Page

10. Web site function with appropriate JavaScript features

11. Mobile Design Responsiveness Implementation using grid, flex, positioning and contextual selectors

12. Documentation (General & Technical)

13. CTA's