WEBD6201 – Client-Side Scripting

Lab 1
DOM Manipulation

Due: Week #4 (Friday February 4, 2022) @ midnight.

Value: 15%

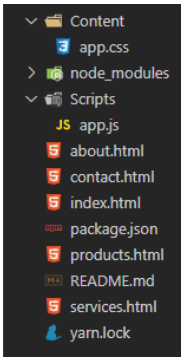
Dom Manipulation **Maximum Mark: 100**

Overview: This lab was made to practice and reinforce your DOM manipulation skills. You will have the opportunity to investigate and identify elements and attributes within an in-depth DOM. You will also get to practice changing elements within the DOM.

Instructions :

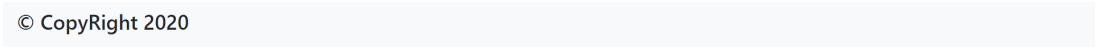
(10 Marks: Site Structure, 20 Marks: Site Content, 45 Marks: Functionality, 5 Marks: Internal Documentation, 5 Marks: Version Control, 5 Marks: Cloud Hosting, 10 Marks Video Demo)

1. **Project Setup (10 Marks Site Structure)**
    a. Your folder structure should follow the same structure shown in class: (2Marks: Site Structure)



    b. Create a basic HTML page with a structure as shown in class using **emmet** (see https://docs.emmet.io/abbreviations/syntax/). The page should include a link to your app.css and your app.js files from the appropriate folders (Content and Scripts respectively) (2 Marks: Site Structure)
    c. Ensure that you include **jQuery**, **bootstrap**, and **font-awesome** as shown in class. You will use the yarn package manager to acquire these files (2 Marks: Site Structure)
    d. Add a **bootstrap Nav Bar** as shown in class. Ensure that it includes several links including **Home**, **Products**, **Services**, **About Us** and **Contact Us** (the 5 pages that most sites include). (4 Marks: Site Structure)

2. Include appropriate Content for your site **(20 Marks: Site Content)**
    a. **Home Page:** Include an interesting background image and some text (body copy) that welcomes the user to your site (5 marks: Site Content).
    b. **Projects Page:** Include details (text and images) of three of your favourite projects. (5 Marks: Site Content)
    c. **Services Page:** Include details (text and images) of three of your best skills that you offer your clients (e.g., custom programming, web design, mobile development, etc.) (5 Marks: Site Content)
    d. **About Us Page:** Include details (text and current images) about you (and your partner). Please keep this appropriate. Include links to your resume(s) (5 Marks: Site Content)
3. **Simple DOM Manipulation (30 Marks: Functionality)**
    a. All the text (body copy) for your site content above should be injected in the page via JavaScript only. For this Lab, you may hard code your text in string variables. (10 Marks: Functionality).
    b. Using only JavaScript change the **Products** link found in the Navbar above to **Projects**. (5 Marks: Functionality).
    c. Using only JavaScript, add another link to the Navbar above named **Human Resources**, that sits between **About Us** and **Contact Us**. You may **not** hard code this in the html file this must be done using DOM manipulation. Ensure that you also include an appropriate font-icon using Font-Awesome (10 Marks: Functionality).
    d. Using only JavaScript, add another Navbar at the bottom of the page that is a "fixed bottom" navbar (see https://getbootstrap.com/docs/5.1/components/navbar/). Ensure that you include a copyright statement with the current date in the Navbar. Your final navbar should look like: (5 Marks: Functionality)



4. Contact Form **(15 Marks: Functionality)**
    a. Include a short form that asks the user for their contact information (e.g., Name, Contact Number, Email Address and Short Message). (5 Marks: Functionality)
    b. When the user clicks on the Submit button, the form will output the user's information to the console. (5 Marks: Functionality)
    c. Clicking the Submit Button will start a timer. After 3 seconds, the user will be redirected back to the Home Page. The form does not have to be fully functional (i.e., have the capability of sending user information to a server) for this Lab. (5 Marks: Functionality)
5. Include **Internal Documentation** for your program **(5 Marks: Internal Documentation):**
    a. Ensure you include a comment header at the top of your app.js file that indicates: Your **Full Name**, **StudentID** and **Date Completed** (2 Marks: Internal Documentation).
    b. Ensure you include function headers for all of your functions (1 Mark: Internal Documentation).

    c. Ensure your program uses **contextual variable names** that help make your code human-readable (1 Marks: Internal Documentation).
    d. Ensure you include inline comments as required. As a rule, the code should be descriptive but sometimes some information is required, especially before any function you include (1 Marks: Internal Documentation)

6. Share your files on **GitHub** to demonstrate Version Control Best Practices **(5 Marks: Version Control).**
    a. Create an appropriately named private GitHub Repository that you and your partner will use for this lab. Only one repository is required (1 Mark: Version Control)
    b. Your repository must include **your code** and be well structured (2 Marks: Version Control).
    c. Your repository must include **commits** that demonstrate the project being updated at different stages of development – each time a major change is implemented (2 Marks: Version Control).

7. Host your site live on a Cloud Provider of your Choice (GitHub pages recommended) (5 Marks: Cloud Hosting)
    a. Your site's images should be visible on your Live site (1 Mark: Cloud Hosting)
    b. Your CSS Layout should function appropriately on your Live Site (2 Marks: Cloud Hosting)
    c. Your Script files should function appropriately on your Live Site (2 Marks: Cloud Hosting)
8. Create a Short Video presentation on **YouTube** or another streaming provider. You must include a short **PowerPoint** (or Google Slides) Slide Deck that includes a **single slide** to start your video (10 Marks: Video)
    a. The **first** (and only) **Slide** of your Slide Deck must include **current images** of you and your partner (no avatars allowed) that are displayed appropriately on the page. You must also include your **Full Names**, **Student IDs**, the **Course Code**, **Course Name,** and your **Assignment** information. (2 Marks: video)
    b. You or your partner will **demonstrate** your program's functionality. You must show your site working properly on your live site. You will also use your Lab Report as a Checklist during your Video Presentation (2 Marks: Video)
    c. You or your partner will **describe** the code in your files that drives the functionality of your program (2 Marks Video).
    d. Sound for your Video must at an appropriate level so that your voices may be **clearly heard,** and your screen resolution should be set so that your program's code and console details are **clearly visible** (2 Marks: Video).
    e. Your Short Video should run no more than 5 minutes (2 Marks: Video).

Evaluation Criteria

Feature	Description	Marks
Site Structure	Your Project adheres to the site structure described (including Assets, Content and Scripts folders)	10
Site Content	Include appropriate images and body content to each of your pages.	20
Functionality	The program's deliverables are all met and the program functions as it should. No errors appear as a result of execution. User Input does not crash the program.	45
Internal Documentation	A comment header is present and includes the name of the student, StudentID, and date completed.	5
Version Control	GitHub commit history demonstrating regular updates.	5
Cloud Hosting	Ensure your Site is hosted live on a Cloud provider of your choice (GitHub pages recommended). All images, CSS and Scripts should function appropriately.	5
Video Presentation	Your short video must demonstrate your site and describe your code. Your audio must be at an appropriate level and your screen must be clearly seen.	10
Total		**100**

SUBMITTING YOUR WORK

Your submission should include:

1. A zip archive of your project uploaded to DCConnect
2. A working link to your complete project files on GitHub
3. A working link to your Live Site hosted on a Cloud Provider of your Choice (GitHub pages recommended)
4. A working link to your demo video posted on YouTube or another streaming provider.
5. Your Completed Lab Report.

This assignment is weighted 1**5%** of your total mark for this course.

Late submissions:

- 20% deducted for each additional day.

External code (e.g. from the internet or other sources) can be used for student submissions within the following parameters:

1. The code source (i.e. where you got the code and who wrote it) must be cited in your internal documentation.
2. It encompasses a maximum of 10% of your code (any more will be considered cheating).
3. You must understand any code you use and include documentation (comments) around the code that explains its function.
4. You must get written approval from me via email.