

Software Developer Course Assessment

Quantitative Assessment Practice

Course Name: Front-end Development

Current Week: (2025/05/19)

Introduction:

The purpose of this assessment is to help us understand how the class is doing in terms of the review material that we have covered during the previous couple of weeks. The only purpose of this assessment is for us to improve our approach to review and ensure that what we're currently doing is an effective strategy. Completion of this assessment is mandatory - if you don't submit a solution, it will be marked as incomplete. If you do submit a solution, it will be marked as complete, as you will receive full marks.

Again, the goal here is to help you all in the best way that we can, so please do be honest when answering the questions related to how long it took, which resources you used, etc. And please ensure that you do your own work – don't just copy off a friend to get it done, earnestly do your best with it. If you can't get it completely working, give us what you have. While it will be graded, the grade will not count against you, it's just a way for us to see where everybody is, and to know which concepts, if any, we, as a class, may be struggling with.

Deadline: You will have until the end of the day on **Saturday, May 31, 2025 (4:00pm)** to submit your assessment solutions. Please ensure you answer all the questions outlined in the instructions portion of this document as well in your submission.

Instructions:

You are allowed to complete the assessment problems below in whatever way you can but please answer the following questions/points as part of your submission:

1. How many hours did it take you to complete this assessment? (Please keep try to keep track of how many hours you have spent working on each individual part of this assessment as best you can - an estimation is fine; we just want a rough idea.)
2. What online resources you have used? (My lectures, YouTube, Stack overflow etc.)
3. Did you need to ask any of your friends in solving the problems. (If yes, please mention name of the friend. They must be amongst your class fellows.)
4. Did you need to ask questions to any of your instructors? If so, how many questions did you ask (or how many help sessions did you require)?
5. Rate (subjectively) the difficulty of Making this all! from your own perspective, and whether you feel confident that you can solve a similar but different problem requiring some of the same techniques in the future now that you've completed this one.

Objective:

Practice writing HTML Markup and CSS, Using Media Elements, writing for the Web, and Using Open Archives.

Requirements:

You are asked to **create a small automobile educational website**. You will **pick a brand** of car, and **research** this brand online. You will then **create a multimedia website** that uses resources about your chosen brand (e.g., images, audio, and video) from open web archives.

The web is full of both proprietary and open-licensed resources. The former cannot be reused by you: you can't take an image or logo from someone else's site and use it on your own. This is a copyright violation. However, there are also many open resources that you can copy and reuse. Learning how to find and use these correctly is important when building your own web content.

Step 1: Choose a Car Model

- Pick a brand to research from those listed in izmostock, see:

<https://www.izmostock.com/car-stock-photos-by-brand>

- It can be any brand you like. Ideally you should choose a brand that is most common around you, but you are free to also choose something else that you find interesting. You must work on your own brand (i.e., you can't partner with other students in the course). Given the number of car brands in the world, it would be surprising if two students chose the same one.

Step 2: Research the Model

Research your chosen model using izmostock website OR any other preferred site. For example, if you were interested in the **2018-chevrolet-volt-premier-5door-hatchback-low-aggressive**, you would begin with the following page:

https://izmostock.photoshelter.com/gallery-image/Chevrolet-Volt-Premier-Hatchback-2018/G0000F4_zkQ2UFFI/I0000iQ7bK2otWV0/C0000Ie2ObpN.fYg

Learn as much as you can about the model. Take notes to help you with the creation of your website. You may NOT copy the text word-for-word, only use it as background material.

Step 3: Write Content

Prepare text for the website, divided into these sections:

1. **Overview:** A brief introduction to the chosen model.
2. **Features:** Highlight its key features and innovations.
3. **Specifications:** Use a table to present some more details.
4. **Gallery:** Include images of the model in action.
5. **User Reviews:** Add quotes or testimonials from users (fictional or sourced with credit).

Step 4: Create HTML Pages

Build a 3-page website using semantic HTML5 elements. Suggested structure:

1. **Home Page:** Introduction and overview of the model.
2. **Features Page:** Detailed list of features with images and descriptions.
3. **Media Gallery:** Showcase media resources (images, videos, audio).

Special notes: Make use of all appropriate HTML elements <https://developer.mozilla.org/en-US/docs/Web/HTML/Element>. For example, if you use lists or acronyms, quotes or technical terms, dates, or definitions, etc. you should make use of the associated HTML5 elements.

In your final markup, you should try to use HTML5 semantic elements as much as possible (see <https://developer.mozilla.org/en-US/docs/Web/HTML/Element>), for example

- <meta> tags for document, author, topic details
- <title> for the document's title
- <article>, <header>, <footer> for the structure of your document
- <nav>, for navigation links
- Headings <h1>, <h2>, ...
- Definitions using <dfn>
- Figures using <figure>, <figcaption>
- Lists using , ,
- Paragraphs <p>
- Hyperlinks <a>
- Abbreviations <abbr>
- Quotes and Citations using <q>, <blockquote>, <cite>
- Data and Time using <time>, <data>
- Inline text with , <i>, ,

You will be judged on your knowledge and use of these elements, and how well you have used them to markup your text. You may NOT submit a series of plain text paragraphs with no other elements. Spend some time choosing and implementing your markup.

Step 5: Add Media

Incorporate multimedia resources to enhance your site:

- **Images:** Include at least 2 high-quality photos with captions and alt text.
- **Video:** Embed a related YouTube video or add a video file using the <video> element with controls.
- **Audio:** Add a sound clip, such as product sounds (e.g., startup tone) or a tech podcast episode.

Use open-licensed resources only (e.g., Creative Commons, Unsplash, Pexels).

Step 6: Style with CSS

- Use CSS Flexbox or Bootstrap for layout and responsive design.
- Create an external CSS file to style the website uniformly.
- Add visual appeal with:
 - Hover effects on links.
 - A navigation bar for smooth transitions between pages.
 - Custom fonts and color schemes to match the model's branding.

Submission:

1. **Remember to validate your HTML document through an online validator before submitting**
(Remember no red elements/attributes should be in your HTML)
2. **Also as mentioned in the class, always give comments in the beginning mentioning your name and assignment details.**
3. **When you are finished, save all the resources in a folder with your first name followed by underscore and qap1. Example: Alan Smith folder will look like “alan_qap1”, zip it and submit it OR upload on github repository and share the link.**

Enjoy coding!