HTML & CSS

COMP1048: Databases and Interfaces (2024-2025)

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1 Lab Overview

In this lab, you will learn the basics of HTML and CSS by building and styling a personal 'About Me' page. This exercise will help you understand how to structure and style web pages.

2 Getting Started

To begin, start by opening your preferred coding editor. We recommend using Visual Studio Code, but Sublime Text is also a popular choices. You should have already installed your editor as part of lab 001.

Once your editor is up and running, your first task is to create a new directory (folder) on your computer. This directory should be named using your student ID, if your student ID is 20201234, then the directory would be named '20201234'.

Within this directory, you're going to set up the basic directory structure of your 'About Me' web page. Start by creating a new HTML file. This file should be named `index.html`. By convention, the `index.html` file is the main entry point for a web page. Alongside this, you'll need a CSS file to handle the styling of your webpage; please name this file `style.css`.

Additionally, you'll need a place to store any images you plan to use. For this purpose, create another directory within your student ID directory and name it `images`. This directory is not strictly necessary, but it's good practice to keep your images separate from your HTML and CSS files. Often web developers will also create separate directories for JavaScript, CSS, and other assets - but for this lab, you only need the `images` directory.

Now, let's begin coding. Open the `index.html` file you've just created and input the following HTML code:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>About Me</title>
</head>
<body>
  <h1>About Me</h1>
</body>
</html>
```

This code lays the foundation for your 'About Me' page. Once you've added it, save the file and open it with a good web browser like Chrome, Firefox or Safari. Again, you should have already installed a web browser as part of lab 001. You should be greeted by a web page, showing the heading 'About Me' at the top.

From here, you should go on and complete the exercises below. You can use the Mozilla Developer Network as a reference for HTML and CSS syntax:

- HTML - https://developer.mozilla.org/en-US/docs/Web/HTML
- CSS - https://developer.mozilla.org/en-US/docs/Web/CSS

3 Exercises

3.1 Structuring an 'About Me' Page with HTML

Modify your `index.html` file to create a 'About Me' page, containing the following elements:

- A table with key details:
  - Name
  - Student ID
  - Email address
  - Home town

- A short biography paragraph
- An image of yourself
- An unordered list of your hobbies
- An ordered list of your favorite movies, ranked by preference
- A contact form with fields for:
  - Name
  - Email
  - Message
  - A submit button
  - Set the form's `action` attribute to `/message/` and `method` attribute to POST

3.2 Styling Your 'About Me' Page with CSS

With the structure of your 'About Me' page in place, it's time to add some styling using CSS. Follow these steps to style your page:

1. Begin by going back to your `index.html` file. Here, modify your HTML code, adding `class` and `id` attributes to elements that you wish to style. Remember, `id` attributes are unique identifiers for specific elements, while `class` attributes can be used to group multiple elements under a single style. Choose names that are meaningful to the element's purpose or content.
2. Next, ensure that your HTML file is connected to your CSS file. Within the section of your `index.html`, add a element that references your `style.css` file. Without this link in-place, the web browser won't know to apply your CSS styles.
3. Now, turn your attention to the `style.css` file. This is where you'll define the style of your webpage. Create CSS rules that target the `class`es and `id`s you've set up in *E2.1*.

While there are no strict rules on how your page should look, it is recommended to aim for a simple design. The objective is to practice your CSS skills, so experiment with different properties and values to see how they affect the presentation of your page.

4 Frequently Asked Questions

Can I use a CSS framework like Bootstrap?

No, the purpose of this lab is to practice writing your own HTML and CSS.

Can I use JavaScript?

No, this lab focuses solely on HTML and CSS.

Can I use a CSS preprocessor like SASS?

No, stick to plain CSS for this exercise.

Can I use a WYSIWYG editor like Dreamweaver?

No, please code your HTML and CSS by hand to gain experience.

Can I use an existing template?

No, you should create your page from scratch.

What should I submit?

Refer to the submission guidelines in the section below.

How do I debug my HTML and CSS?

Use the developer tools in modern web browsers like Chrome, Firefox, Safari, or Edge for debugging. You can also use the W3C Markup Validation Service to check your HTML and CSS for errors:

- HTML - https://validator.w3.org/
- CSS - https://jigsaw.w3.org/css-validator/

5 Submitting Your Lab Work

Submit a ZIP file named with your student ID (e.g., `12345678.zip`) containing your webpage assets. Ensure the following structure:

```
<student-id>/      # Root directory named after your student ID
├── index.html     # Your main HTML file
├── style.css      # Your CSS file
└── images/        # Directory for images
    ├── me.png     # Image of yourself
    └── other.png  # Any other images used
```

Submit your work to the Lab 8 assignment on Moodle before the deadline. Late submissions will receive a mark of zero, as per the coursework issue sheet.

Your submission should be readable, uncorrupted, and show a reasonable attempt at completing the exercises. Failure to meet these requirements will result in a zero mark for the lab.

This lab accounts for 3% of your overall module grade.