

## ENSF-381: Full Stack Web Development Laboratory

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Lab 2

### Objectives

Welcome to the ENSF381 course lab! Below are the detailed instructions for creating and understanding an HTML document. The main objective of this lab is to apply the fundamental concepts of HTML structure, tables, and form.

### Groups

Lab instructions must be followed in groups **of two students**.

### Submission

You must submit the complete source code, ensuring it can be executed without any modifications. Also, if requested by the instructor, you may need to submit the corresponding documentation file (e.g., word and image). Only one member of the group needs to submit the assignment, but the submission must include the names and UCIDs of all group members at the top of the code.

### Deadline

Lab exercises must be submitted by **11:55 PM on the same day as the lab session**. Submissions made within 24 hours after the deadline will receive a maximum of 50% of the mark. Submissions made beyond 24 hours will not be evaluated and will receive a grade of zero.

### Academic Misconduct


Academic Misconduct refers to student behavior which compromises proper assessment of a student's academic activities and includes: cheating; fabrication; falsification; plagiarism; unauthorized assistance; failure to comply with an instructor's expectations regarding conduct required of students completing academic assessments in their courses; and failure to comply with exam regulations applied by the Registrar.

For more information on the University of Calgary Student Academic Misconduct Policy and Procedure and the SSE Academic Misconduct Operating Standard, please visit: <https://schulich.ucalgary.ca/current-students/undergraduate/student-resources/policies-and-procedures>

## Exercise 1: Personal page

**Objective:** In this exercise, we will create a simple personal webpage using HTML. The purpose of this exercise is to familiarize yourself with basic HTML elements, including headings, lists, links, images, and forms. **All the required images and text are available in the supplementary folder.**

# My Personal page



[University of Calgary](#)  
[History](#)

## My Hobbies

- Reading
- Gaming
- Travelling

## Form

Enter your name:

☐ Section 1  
☐ Section 2

### Setting Up the HTML File

1. Open your code editor and create a new file.
2. Save the file as exercise1.html.

### Creating the Document Structure

1. Add the basic structure of an HTML document:
2. Inside the <head> tag, set the title to “Personal Page”.

## Adding the Page Content

1. Add a top-level heading for your page title “My Personal Page” using first level (h1) heading.
2. Add a profile picture to the page as shown in the output. The profile picture is available in the D2L folder.
3. Set the width and height to 100px. Ensure the profile picture is in the same folder as your HTML file.
4. Add a link to the University of Calgary website as shown in the output:  
<https://www.ucalgary.ca>
5. Add a link to the Exercise 2 page (exercise2.html) as shown in the output.
6. Add a second level (H2) heading titled “My Hobbies”.
7. Create a bulleted list of at least three hobbies using an unordered list as shown in the output.
8. Add a section for a form.
9. Include a text box for users to enter their name.
10. Add radio buttons to allow users to select between predefined sections as shown in the output. The user can select one section at a time.

## Submission:

- 1- Fill out the Answer\_sheet.docx, including:
  - a. The names and UCIDs of all group members.
  - b. A screenshot showing the output of Exercise 1.
- 2- Create a new GitHub repository and upload the code for Exercise 1 to the new repository.

## Exercise 2: UoC History page

**Objective:** This exercise will teach you how to create a structured HTML page using a combination of text, images, and hyperlinks. Specifically, we will create page similar to UoC History page (<https://ucalgary.ca/about/our-history>). You will learn how to use tables for layout, define sections with headings and paragraphs, and embed images and links.

### Setting Up the HTML File

1. Open your code editor and create a new file.
2. Save the file as `exercise2.html`.
3. Ensure that the newly created file is saved in the same location as `exercise1.html`.

### Creating the Document Structure

1. Add the basic structure of an HTML document:
2. Inside the `<head>` tag, set the title to “Our History”.

### Explore the Page Layout

1. Open the *exercise2\_output.pdf*.
2. Observe how the content is divided into sections and arranged into a coherent structure.

### Adding the Page Content

1. Inside the `<body>` tag, create a `<table>` element to organize the content:
  - Use `border="1"`.
  - Set the table's width to 100%.
2. Divide the table into **six rows**:
  - One row for the banner image.
  - One row for the introduction text.
  - Four rows for the content sections.
3. Add the banner image (`banner.jpg`) to the first row of the table. Use a single cell spanning the entire width of the table for the banner.
4. Set the image width to 100% and height to 600px.
5. Use first level heading (`h1`) for the title of the introduction to make it prominent. The text to insert is: “Like many Calgary success stories ....etc”.
6. Add multiple paragraphs to describe the historical context as shown in the output. Use the paragraph tag for each block of paragraph text. You can find the output text in the *supplementary.txt* file.
7. Add a horizontal line to separate this section from the next as shown in the output.
8. In the next row, use a first level heading (`h1`) for the section title (The roads that brought us here). Then, include the paragraph text shown in the output inside a paragraph tag.  
**Note:** Use a single cell that spans the entire width of the table for the banner.
9. For the rest of the rows:

- a. Use second level headings (h2) for each section title (e.g., “Calgary's urban evolution”) to differentiate them from the main title. The headings are:
    - i. Calgary's Urban Evolution
    - ii. Changing Face of Campus
    - iii. Culture and Society
  - b. Add supporting text within <p> tags for each section. The text to insert includes:
    - i. For “Calgary's Urban Evolution”: “A university and a city growing together side by side.”
    - ii. For “Changing Face of Campus”: “Creating an intellectual hub to empower the problem-solvers of the future, today.”
    - iii. For “Culture and Society”: “Fueling the cultural and social transformation of a city and region.”
  - c. Include an image for each section with dimensions of 570px by 400px.
  - d. Provide links within each section for users to explore more information. These links should be displayed as "Read more" at the end of the descriptive text. The links are:
    - i. For “Calgary's Urban Evolution” section: <https://ucalgary.ca/about/our-history/calgarys-urban-evolution>
    - ii. For “Changing Face of Campus” section: <https://ucalgary.ca/about/our-history/changing-face-campus>
    - iii. For “Culture and Society” section: <https://ucalgary.ca/about/our-history/culture-and-society>
10. Change the table border from “1” to “0”.
  11. Ensure that the final output of your HTML page matches the provided output screenshot exactly.
  12. If I navigate to the Exercise 1 page and click on the “History” link, I should be redirected to the Exercise 2 page.

**Question 2.1:** What is the difference when you set the table width to a fixed width (e.g., 150px) compared to a percentage (e.g., 100%)? Explain how it affects the layout and responsiveness of the webpage.

**Submission:**

1. In the Answer\_sheet.docx you edited for Exercise 1, include:
  - a. A screenshot showing the output of Exercise 2.
  - b. The answer to Question 2.1.
2. Upload the code for Exercise 2 to the same repository you created for Exercise 1.
3. Compress both Exercise 1 and Exercise 2 into a single file and upload the compressed file to D2L. Also, upload the completed Answer\_sheet.docx.