

Lab Exercise: Applying CSS to an HTML Document

Objective:

- In this lab exercise, you will practice applying CSS to an HTML document using various CSS properties to change the appearance and layout of the web page. You will use an external style sheet and link it to the HTML document you created in the previous exercise.

Tools Needed:

- Text editor (e.g., Notepad++ or Visual Studio Code)
- Web browser

Part 1 – Applying the CSS to the existing HTML Document

1. Creating the CSS Document:

- Open your text editor of choice.
- Navigate to the location where you saved the `exercise.html` file from previous lab exercise
- Create a new CSS document in the same location with your `exercise.html` and save it as `style.css`.

2. Adding Style Rules:

- In the CSS document, add style rules to achieve the following effects:
 - i. Change the background color of the body to #EAF2E3.
 - ii. Change the font family of the headings to 'Josefin Sans' from Google Fonts (<https://fonts.google.com/specimen/Josefin+Sans?classification=Display>).
 - iii. Change the font size of the level 1 heading to 36px and the color to #F25757.
 - iv. Change the font size of the level 2 headings to 24px and the color to #F2CD60.
 - v. Change the font size of the level 3 and 4 headings to 18px and the color to #61E8E1
 - vi. Change the font family of other text in body to 'Open Sans' from Google Fonts (<https://fonts.google.com/specimen/Open+Sans?stroke=Sans+Serif>)
 - vii. Change the font size of the paragraphs to 16px and the color to #424242.
 - viii. Change the margin of the paragraphs to 20px.
 - ix. Change the list-style-type of the ordered lists to lower-roman.
 - x. Change the list-style-type of the unordered lists to square.
 - xi. Change the margin of the lists to 10px.
 - xii. Define a style for the table. Use the `#users` selector to target the table, and don't forget to specify id attribute with `users` as the value in html table element. Use `border-collapse: collapse;` to collapse the borders into a single border and set the width of the table to 100%.
 - xiii. Use the `#users td, #users th` selector to target the table data and headers. Set a border of 1px, solid, and color #ddd. Add padding of 8px to create space around the content.

- xiv. Add a background color to even rows. Use the `#users tr:nth-child(even)` selector to target every even row. Set the `background-color` to `#f2f2f2`.
 - xv. Change the background color on hover `#users tr:hover` selector to target a row when it's being hovered over. Set the `background-color` to `#ddd`.
 - xvi. Style the table headers. Use the `#users th` selector to target the table headers. Set `padding-top` and `padding-bottom` to 12px to create space above and below the content. Align the text to the left with `text-align: left;`. Set the `background-color` to `#5B75D3` and the text color to white.
3. Linking the CSS Document:
- Open the HTML document `exercise.html` that you created in the previous exercise.
 - In the head section of the document, add a link element to link the CSS document `style.css` to the HTML document. Use the attribute `rel="stylesheet"` and the attribute `href="style.css"`.
4. Testing in a Web Browser:
- Save both the HTML and CSS documents
 - Open your web browser
 - Navigate to the location where you saved the `exercise.html` file and open it in your browser
 - Check if the web page looks like the sample below:

HTML Exercise

This is a simple exercise to practice HTML structure and elements.

- i. Headers
- ii. Lists
- iii. Tables

Headers

Headers are used to define the title or subtitle of a section. There are six levels of headers, from h1 to h6. The lower the number, the larger and more important the header. For example:

This is a level 3 header

This is a level 4 header

Lists

Lists are used to group a set of related items. There are three types of lists: ordered, unordered, and description. Ordered lists use numbers to indicate the order of the items. Unordered lists use bullets to indicate no specific order. Description lists use a term and a definition pair to describe an item. For example:

- Coffee
- Tea
- Milk

- i. Step 1: Boil water
- ii. Step 2: Add coffee powder
- iii. Step 3: Enjoy your coffee

HTML

- HyperText Markup Language

CSS

- Cascading Style Sheet

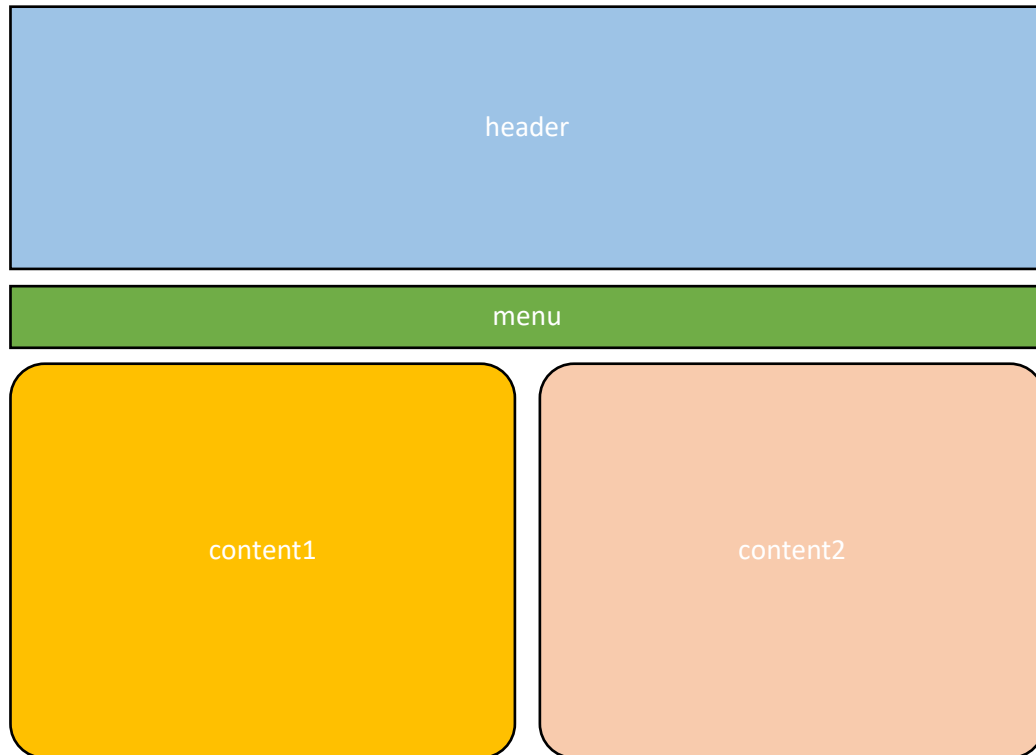
Tables

Tables are used to display data or information in a structured way. Tables consist of rows and columns. Each row is defined by a `tr` element. Each column is defined by a `th` element for table header or a `td` element for table data. For example:

Name	Age
Alice	20

Part 2 - Web Page Layout

In this part, you will create a web page layout that looks like the figure below. You will use HTML and CSS to create and style the elements of the page.



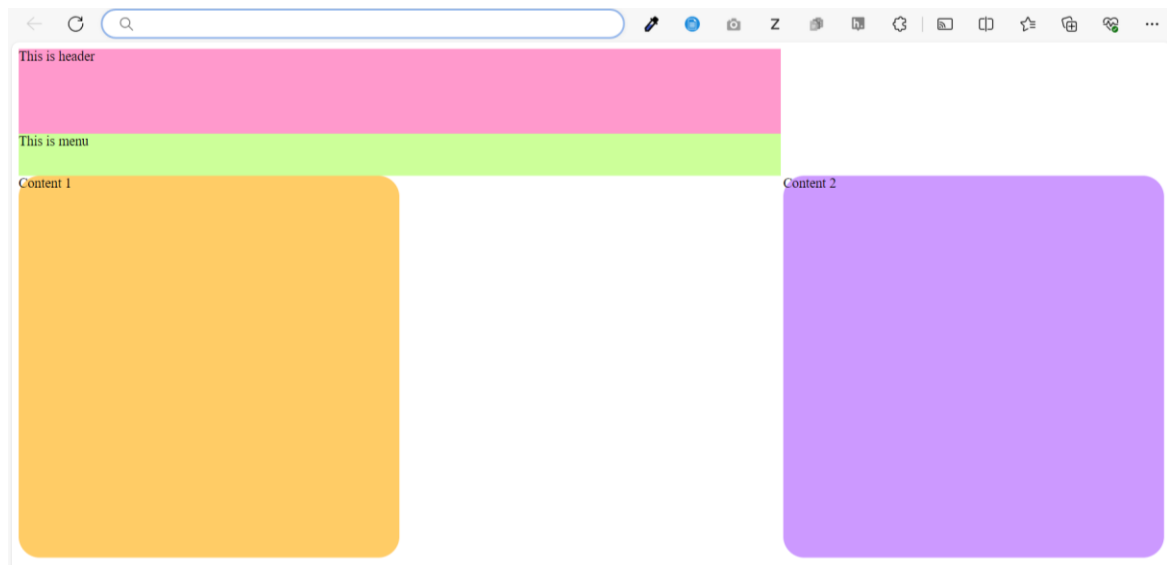
Follow these steps to complete the task:

1. Create a new file named `weblayout.html` and open it in a text editor.
2. In the `<body>` section of the file, add four `<div>` elements with different id attributes: `header`, `menu`, `content1`, and `content2`. Inside each `<div>`, add some text to identify the section. For example:

```
<div id="header">This is header</div>
<div id="menu">This is menu</div>
<div id="content1">Content 1</div>
<div id="content2">Content 2</div>
```

3. To style the layout of the web page, add a `<style>` element in the `<head>` section of the file. Inside the `<style>` element, add CSS rules for each `<div>` element using their id selectors. Use the following values for the CSS properties of each `<div>` element:
 - `header`: height = 100px, width = 900px, background-color = #FF99CC
 - `menu`: height = 50px, width = 900px, background-color = #CCFF99
 - `content1`: height = 450px, width = 450px, float = left, background-color = #FFCC66, border-radius = 25px
 - `content2`: height = 450px, width = 450px, float = right, background-color = #CC99FF, border-radius = 25px

4. Save the file and open it in a web browser. You should see something like this:



5. To make all the sections align to the center of the page, add another `<div>` element with an `id` attribute of `wrapper`. This `<div>` element should wrap around all the other `<div>` elements. For example:

```
<div id="wrapper">
  <div id="header">This is header</div>
  <div id="menu">This is menu</div>
  <div id="content1">Content 1</div>
  <div id="content2">Content 2</div>
</div>
```

Then, add a CSS rule for the wrapper element using its id selector:

```
#wrapper {
  width:900px;
  margin:0 auto;
}
```

6. Save the file and refresh the web browser.

To add some space between the edges of the boxes and their content, you can use the CSS property `padding`. To add some space between the boxes and their surrounding elements, you can use the CSS property `margin`. You can learn more about these properties and how they affect the layout of a web page from this link: http://www.w3schools.com/css/css_boxmodel.asp