**MODULE 2 LAB EXERCISES: LAB 2.1**

1. Open the src folder in VS code and take a look at the template HTML files

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1. With **index.html** opened, start the **Live Server** extension by clicking the Go Live button in the bottom right-hand corner of VS Code:

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1. This should open <http://127.0.0.1:5500/index.html> in your browser.
   1. Change the above URL to load the **form.html** page, and then click the Home link to go back to index.

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**II. HTML elements - metadata**

In this section, you'll be editing the <head> section of the **index.html** file.

**Steps:**

1. Add a title using the HTML title tag.
2. Add metatags using HTML <meta> tags for the following 5 items:

charset

description

keywords

author

viewport

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**III. HTML elements - div, span, p, pre, ul, li, ol, article**

In this section you'll be editing the <body> section of the **index.html** file.

**Steps:**

1. Add 3 **div**s next to each other at the beginning of the body section and put some distinctive content into each of the divs,  e.g.

<div>HTML</div> <div>CSS</div> <div>JavaScript</div>

1. Below the divs, add 3 **span**s next to each other and put some distinctive content into each span. Observe the difference between block and inline elements in the browser.

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*TIP: In VSCode, you can highlight your code and then press Ctrl+K+F to auto-format the code. VSCode won't auto-format if code is invalid with tags that are improperly closed or nested.*

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1. Below, add **p** and **pre** tags into your HTML body using the below contents:

<p> p represents paragraph     without preserving      spacing

</p>

<pre>

Text in         a pre element

is displayed in a fixed-width

font, and it preserves

both      spaces and

line breaks

</pre>

Observe how the <pre> tag preserves the structure of the text inside, while the <p> tag collapses spaces and newlines.

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1. Add an unordered list of 4 items to your page using **ul** and **li** tags.

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1. Add an ordered list of 3 items to your page using **ol** and **li** tags.

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1. Add a nested list of 2 items inside the last item of either the unordered or ordered list above.

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1. Wrap all the elements you've created so far with an **article** tag.

<article>

 <!-- Content added in previous points -->  
</article>

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1. Add a page headline - add an **h1** tag *above* your article with any content, e.g. "My HTML learning journey."

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Description automatically generated

1. Add an article headline - add an **h2** tag *within* the article tag with any content, e.g. "Learning elements - div, span, p, pre, ul, li, ol, article." Consider the difference between the page headline and the article headline.

A screen shot of a computer

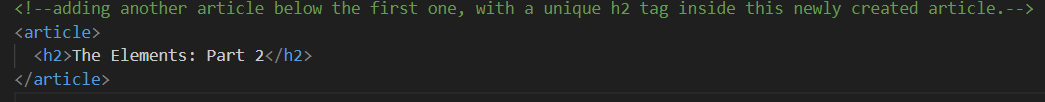
Description automatically generated

**IV. HTML elements - Tables - table, thead, tbody, tr, td, th**

In this section you'll be editing the <body> section of the **index.html** file.

**Steps:**

1. Start by adding another **article** below the first one, with a unique **h2** tag inside this newly created article.



1. Search the web for ‘HTML table’ and copy code you can find.

A screen shot of a computer program

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1. Create another row by copying a **tr** tag, together with its children, below the first row.

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Description automatically generated

1. By default, tables don't have any styles. Add basic styling by copying the code provided.

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1. Add a third cell inside one of the rows. Observe how the table lost its shape.

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A close up of a box

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1. Each table row needs to account for the same amount of columns, and violating this rule will cause your table to lose shape. Fix the table by adding the missing **td** tag on the other row/s.

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1. Now the header is missing for the third column. Fix this by adding a **colspan** attribute to the first **th** tag to make it span two columns.

A screen shot of a computer

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1. Add a *third* row with 2 columns to the table and add a rowspan="2" attribute to one of the td tags on the *second* row, then observe what happens.

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A screenshot of a computer

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**V. HTML elements - img, video, audio**

In this section you'll be editing the <body> section of the **index.html** file.

**Steps:**

1. Start by adding another **article** below the second one, with a unique **h2** tag inside this newly created article.
2. Add an **image** to your website using the code below. Add a value for the **alt** attribute, and experiment with using one, then both of the **width** and **height** attributes to change the size of the image.

<img src="https://picsum.photos/400/400" alt="" />

A screen shot of a computer

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1. Add a second image using the **html\_lab\_image.jpg** file from the assets folder. Give it an alt attribute and make it appear the same size as the first image.

A screen shot of a computer

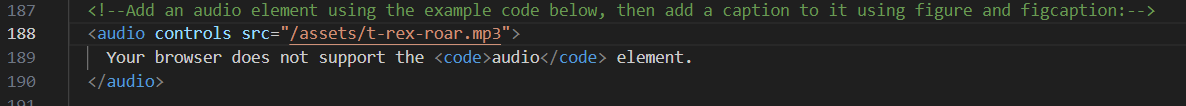
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1. Add a **video** using the example code provided.

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1. Add an **audio** element using the example code below, then add a caption to it using figure and figcaption:



1. Try removing the **controls** attribute and adding **autoplay** attribute to both audio and video tags. Observe the changes.

A screenshot of a computer program

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**VI. HTML elements - Forms - form, input, label, select, option, button**

In this section you'll be editing the **form.html** file.

1. Add a **form** using a <form> tag like this:

<form method="POST" action="http://127.0.0.1:5500/form.html">

</form>

1. Inside the form, add 2 **text inputs** - one for inputting first name and the second one for inputting last name.

* Remember to add a **label** for each input.
* Wrap each input, together with its label, in a **div** to stack the inputs one below another.

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1. Add 3 **radio buttons** using <input type="radio" ...>, allowing the user to select their favourite coding language.

* Remember to **label** the inputs and add **name** and **value** attributes.
* Wrap the radio buttons in a **div** to separate them from the other form fields.

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1. Add 3 **checkboxes** using <input type="checkbox" ...>, allowing the user to select the types of vehicle they own.
   * Remember to **label** the inputs and add **name** and **value** attributes.
   * Wrap the checkboxes in a **div** to separate them from the other form fields.

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Description automatically generated

1. Add a **dropdown** element to your form using <select> and <option> tags, allowing the user to choose the brand of car they own.

Remember to **label** the dropdown and add a **value** attribute for each **option**.

A screen shot of a computer program

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1. Add a **submit** button at the end of the form:

<button type="submit">Submit form</button>

A screen shot of a computer

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**VII. Adding a link from Home to Form page**

In this section you'll extend both pages so users can navigate between Home and Form pages by clicking a link in the navigation bar.

**Steps:**

1. Add another <a> element, linking to the form page, inside the <nav> tag in both **index.html** and **form.html**.
2. Test your links by clicking them to navigate to both pages.

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A computer screen shot of a program code

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Note: The links work except when pointing to self (e.g. clicking “Home” under the index.html)

**VIII. Inspecting the HTML**

In this section you'll inspect the HTML that you've written on the page.

1. Use inspection tool – right click anywhere on the page and click ‘Inspect’
2. Select various elements on your website by clicking on them using the Elements tab of the Inspection tool. Observe how they are highlighted as you hover and click them.
3. Take a look at the CSS in the "Styles" subtab (under or right of the "Elements" tab) and try editing the CSS styles. For example you may try adding some of the following values:

margin: 20px; color: blue; font-size: 24px;

|  |  |
| --- | --- |
| Take a look at the screenshot and use element.style {} to add new styles to selected HTML elements. | A screenshot of a computer program  Description automatically generated |
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