Module II: Basic web elements
Basic HTML Document Object Model (DOM) and its Components

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✓ Identify the HTML Document Object Model (DOM) and its components.

Session Activity

✓ Apply html List, Description List and Data List in web page
✓ Apply html various bullets using list
✓ Configure other lists with Select and options

Keywords

The HTML Lists are used to specify lists of information. All lists may contain one or more list elements. There are three different types of HTML lists:

- ✓ Ordered List or Numbered List (ol)
- ✓ Unordered List or Bulleted List (ul)
- ✓ Description List or Definition List (dl)

✓ An ordered list starts with the <ol> tag. Each list item starts with the <li> tag.

✓ The list items will be marked with numbers by default:

```
<!DOCTYPE html>
<html>
<body>
<h3> Q1. List of the Web Development Languages
</h3>
<ol>
  <li>HTML</li>
  <li>CSS</li>
  <li>PHP</li>
</ol>
</body>
</html>
```

Output

Q1. List of the Web Development Languages

1. HTML
2. CSS
3. PHP

To represent different ordered lists, there are 5 types of attributes in <ol> tag.

Type	Description
Type "1"	This is the default type. In this type, the list items are numbered with numbers.
Type "I"	In this type, the list items are numbered with upper case roman numbers.
Type "i"	In this type, the list items are numbered with lower case roman numbers.
Type "A"	In this type, the list items are numbered with upper case letters.
Type "a"	In this type, the list items are numbered with lower case letters.

Example

```
<ol type="I">
 <li>HTML</li>
 <li>Java</li>
 <li>JavaScript</li>
 <li>SQL</li>
</ol>
```

EXPLORE

https://www.geeksforgeeks.org/html-introduction/

HTML Unordered List or Bulleted List displays elements in bulleted format . We can use unordered list where we do not need to display items in any particular order. The HTML ul tag is used for the unordered list. There can be 4 types of bulleted list:

- ✓ Disc
- ✓ Circle
- ✓ Square
- ✓ none

Example:

```
<ul type="circle">
 <li>HTML</li>
 <li>Java</li>
 <li>JavaScript</li>
 <li>SQL</li>
</ul>
```

EXPLORE

https://www.javatpoint.com/html-unordered-list

HTML Description List or Definition List displays elements in definition form like in dictionary. The <dl>, <dt> and <dd> tags are used to define description list. The 3 HTML description list tags are given below:

- ✓ **<dl> tag** defines the description list.
- ✓ **<dt> tag** defines data term.
- ✓ **<dd> tag** defines data definition (description).
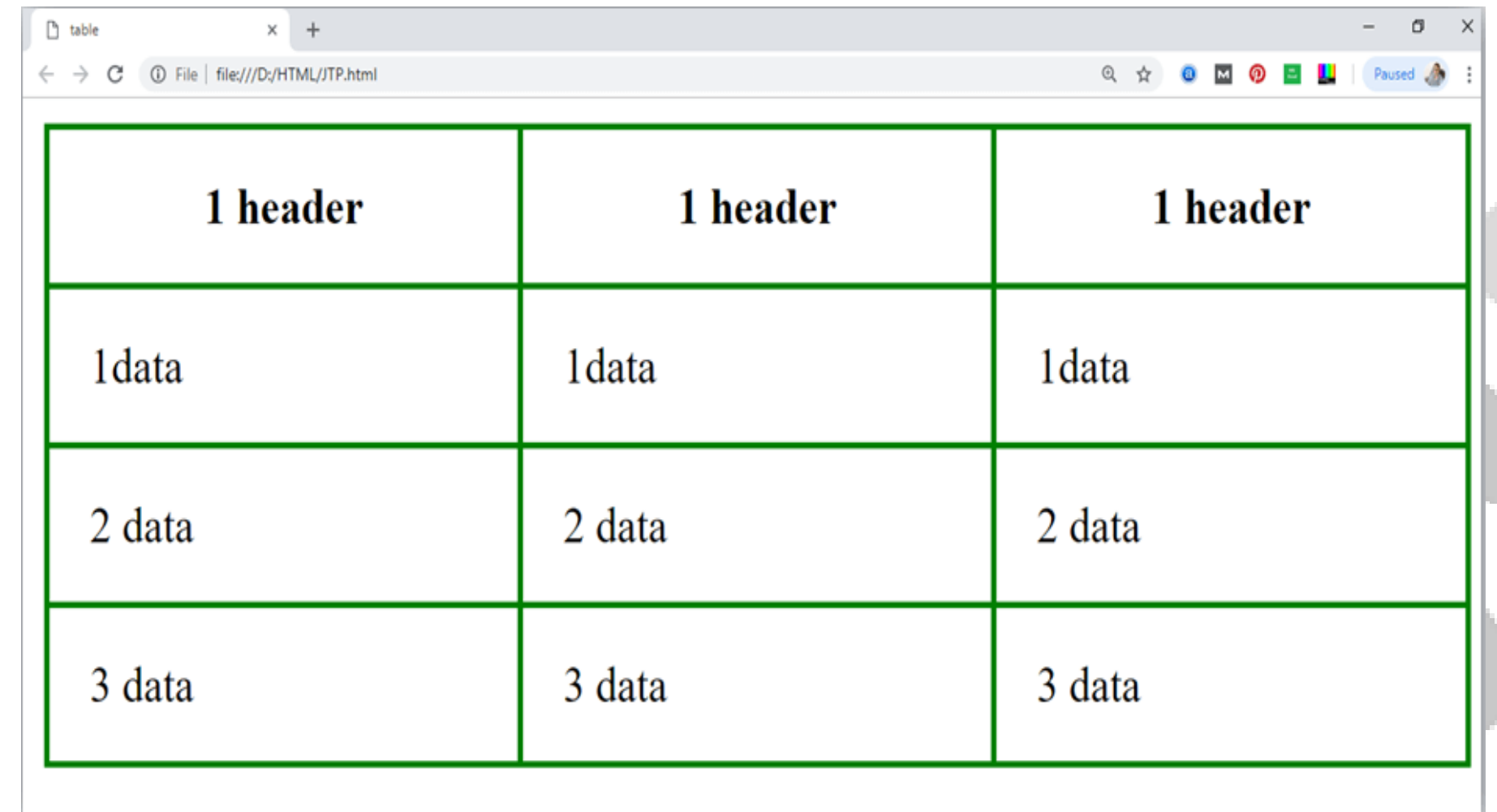
```
<dl>
 <dt>HTML</dt>
 <dd>is a markup language</dd>
 <dt>Java</dt>
 <dd>is a programming language and platform</dd>
<dt>JavaScript</dt>
 <dd>is a scripting language</dd>
 <dt>SQL</dt>
 <dd>is a query language</dd>
</dl>
```

EXPLORE

https://www.javatpoint.com/html-description-list

✓ **HTML table tag** is used to display data in tabular form (row, column). There can be many columns in a row.

✓ We can create a table to display data in tabular form, using <table> element, with the help of <tr> , <td>, and <th> elements.

✓ In Each table, table row is defined by <tr> tag, table header is defined by <th>, and table data is defined by <td> tags.

EXPLORE

https://www.javatpoint.com/html-table

The <datalist> tag specifies a list of pre-defined options for an <input> element.

The <datalist> tag is used to provide an "autocomplete" feature for <input> elements. Users will see a drop-down list of pre-defined options as they input data.

The <datalist> element's id attribute must be equal to the <input> element's list attribute (this binds them together).

```
<label for="browser">Choose your browser
from the list:</label>
<input list="browsers" name="browser" id=
"browser">

<datalist id="browsers">
  <option value="Edge">
  <option value="Firefox">
  <option value="Chrome">
  <option value="Opera">
  <option value="Safari">
</datalist>
```

EXPLORE

HTML datalist Tag (w3schools.com)

```
<label for="fruits">Choose a any
fruit:</label>

<select name="fruits" id="fruits">
   <option value="apple">Apple</option>
   <option value="mango">Mango</option>
   <option value="grapes">Grapes</option>
   <option value="banana">Banana</option>
</select>
```

EXPLORE

HTML select tag (w3schools.com)

❑ The <select> element is used to create a drop-down list.

❑ The <select> element is most often used in a form, to collect user input.

❑ The name attribute is needed to reference the form data after the form is submitted (if you omit the name attribute, no data from the drop-down list will be submitted).

❑ The id attribute is needed to associate the drop-down list with a label.

❑ The <option> tags inside the <select> element define the available options in the drop-down list.

```
<label for="cars">Choose a car:</label>
<select  name="cars" id="cars">
  <optgroup label="Swedish Cars">
    <option value="volvo">Volvo</option>
    <option value="saab">Saab</option>
  </optgroup>
  <optgroup label="German Cars">
    <option value="mercedes">Mercedes</option>
    <option value="audi">Audi</option>
  </optgroup>
</select>
```

❑ The <optgroup> tag is used to group related options in a <select> element (drop-down list).
❑ If you have a long list of options, groups of related options are easier to handle for a user.

EXPLORE

HTML optgroup tag (w3schools.com)

```
<form action="/action_page.php" method="get">
 <label for="fname">First name:</label>
 <input type="text" id="fname" name="fname"><br><br>
 <label for="lname">Last name:</label>
 <input type="text" id="lname" name="lname"><br><br>
 <input type="submit" value="Submit">
</form>
```

- ❑ The <form> tag is used to create an HTML form for user input.
- ❑ The <form> element can contain one or more Input elements:

EXPLORE

HTML form tag (w3schools.com)

Implement the below task using html Lists.

1. Make Nutritional Value based on Vitamins using Description List and also format the data in the Web page with various colors and other formatting elements.

2. Implement a time table as given in the last week task with all required formatting but in case of hard code of Periods and times, at the same place put selection or Datalist based dropdowns to choose available courses which are mention below the time table.

Reference

1. *https://www.javatpoint.com/html-unordered-list*

2. *https://www.javatpoint.com/html-description-list*

Thank You

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