Front End Development

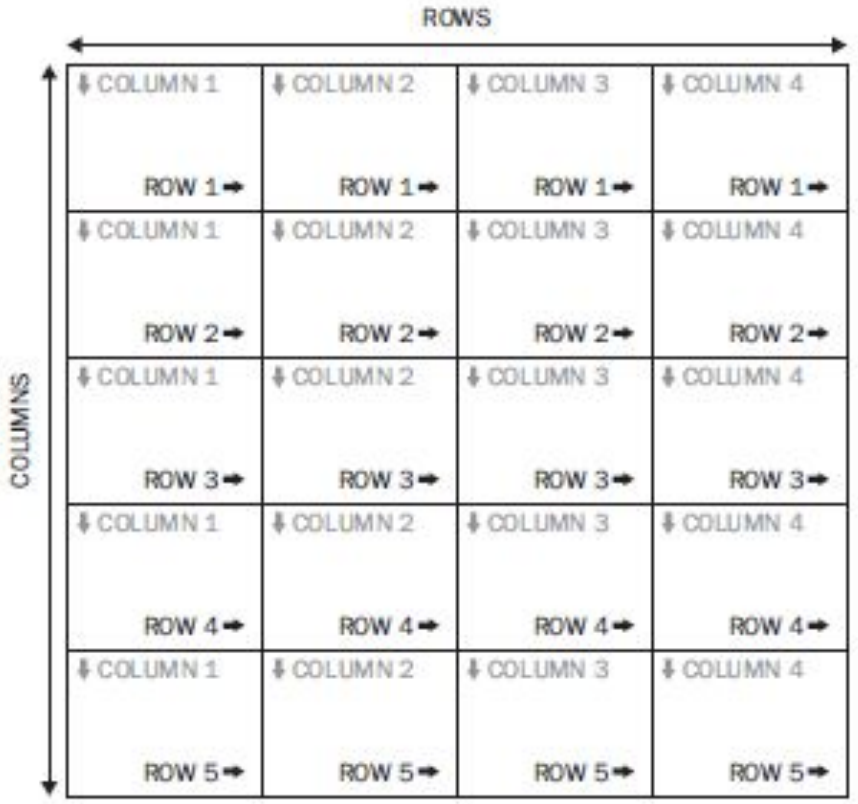
Tables & Forms

What you will learn today?

HTML Tables
Table Elements & Attributes
HTML Forms
Sample(Several) Exercises

HTML – Tables

- What are tables and how are they used in HTML
- Basic Table Elements & Attributes
- Create Accessible Tables



Hourly Forecast - Montréal

No Alerts in effect

Date/Time (EDT)	Temp. (°C)	Weather Conditions	Likelihood of precip	Wind (km/h)
29 April 2019				
01:00	3	A few clouds	Nil	W 10
02:00	2	A few clouds	Nil	W 10
03:00	1	A few clouds	Nil	W 10
04:00	1	A few clouds	Nil	W 10
05:00	0	A few clouds	Nil	W 10
06:00	1	Mainly sunny	Nil	W 10
07:00	1	Mainly sunny	Nil	W 10
08:00	2	Mainly sunny	Nil	W 10

HTML – Tables

```
<table>
<tr>
   <td>1</td>
   <td>John</td>
</tr>
<tr>
   <td>2</td>
   <td>Smith</td>
</tr>
```

*Sample Exercise – 1

HTML – Tables

```
<table border="1">
<tr>
   <th></th>
   <th>Fall 2018</th>
   <th>Winter 2019</th>
   <th>Total</th>
</tr>
<tr>
   <th>Digital Marketing</th>
   <td>100</td>
   <td>200</td>
   <td><b>300</b></td>
</tr>
<tr>
   <th>Java</th>
   <td>50</td>
   <td>100</td>
   <td><b>150</b></td>
   </tr>
</table>
```

- The first row is made entirely of headings for Fall'18 & Winter'19. The top left cell is empty
- In each row, the first cell is also a table heading cell (indicated using a <th>), which states which program the count is for. Then the remaining three cells of each row contain table data contained inside the <td> elements.

*Sample Exercise – 1

HTML – Table Elements & Attributes

- dir Attribute

The dir attribute is supposed to indicate the direction of text used in the table. Possible values are ltr for left to right text and rtl for right to left (for languages such as Hebrew and Arabic). If you use the dir attribute with a value of rtl on the <table> element, the cells appear from the right first, and each consecutive cell is placed to the left of that one.

dir="rtl“ | dir =“ltr”

- The <tr> Element

The <tr> element contains each row in a table. Anything appearing within a <tr> element should appear on the same row.

*Sample Exercise – 1

HTML – Table Elements & Attributes

- The <td> and <th> Elements Represent Table Cells

Every cell in a table is represented by either a <td> element for cells containing table data or a <th> element for cells containing table headings. By default, the contents of a <th> element usually display in a bold font, horizontally aligned in the center of the cell. The content of a <td> element, meanwhile, usually displays left-aligned and not in bold (unless otherwise indicated by CSS or another element). The <td> and <th> elements can both carry the same set of attributes, and the attribute applies only to that one cell carrying it. Any effects these attributes have override settings for the table as a whole or any containing element (such as a row).

*Sample Exercise – 1

HTML – Table Elements & Attributes

- The colspan Attribute

Use the colspan attribute when a cell should span across more than one column. The value of the attribute specifies how many columns of the table a cell spans across.

colspan="2"

- The rowspan Attribute

The rowspan attribute specifies the number of rows of the table a cell spans across, the value of the attribute being the number of rows the cell stretches across.

rowspan="2"

- Adding a Caption to a Table

Each table should have a caption so that visitors to your site know what the table is for. Even if the surrounding text describes the content of the table, it is good practice to give the table a formal caption using the <caption> element

<caption> Opening hours for the Cafe</caption>

*Sample Exercise – 2&3

HTML – Table Elements & Attributes

- Splitting Up Tables Using a Head, Body, and Foot

There are occasions in which you may want to distinguish between the body of a table (where most of the data is held) and the headings or maybe even the footers. For example, think of a bank statement: You may have a table where the header contains column headings, the body contains a list of transactions, and the footer contains the balance in the account. If the table is too long to show on a screen, the header and footer might remain in view all the time, whereas the body of the table gains a scrollbar

The three elements for separating the head, body, and foot of a table follow:

- <thead> to create a separate table header
- <tbody> to indicate the main body of the table
- <tfoot> to create a separate table footer

*Sample Exercise – 4

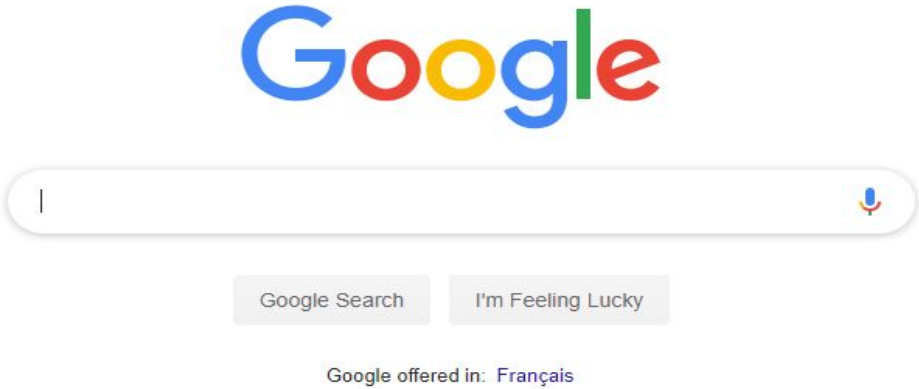
HTML – Forms

- Introduction

Lets start learning forms considering the Google homepage, which contains two kinds of form controls:

➢ **Text input:** Where you enter your search term.

➢ **Submit buttons:** Send the form to the server. There are two on this form: You can see the words Google Search written on the first one and I'm Feeling Lucky on the second.



*Sample Exercise – 2&3

HTML – Forms

```
<form id="frmSample "action="https://www.google.com" method="get">
<h3>Search Form</h3>
<input type="text" name="txtSearchItem" maxlength="20" size= "20" placeholder="Enter
your name">
<input type="submit" value="Search">
</form>
```

- The <form> element carries an attribute called action whose value is the URL of the page on the web server that handles search requests. Meanwhile, the method attribute indicates which of two HTTP methods—get and post—are used in getting the form data to the server. To create forms, you first need to look at the <form> element in a little more detail and then go through the different types of form controls to see how they sit inside the <form> element. In a traditional web page, every <form> element should carry at least two attributes:

  action, method

*Sample Exercise – formExample1Search

HTML Forms – Attributes

- The action Attribute

The action attribute indicates what happens to the data when the form is submitted. Usually, the value of the action attribute is a page or program on a web server that receives the information

In our previous example, it navigates to google.com

- The method Attribute

Form data can be sent to the server in two ways, each corresponding to an *HTTP method*:

- The **get** method, which sends data as part of the URL. This is the default.
- The **post** method, which hides data in the HTTP headers.

- The id Attribute

The id attribute enables you to uniquely identify the <form> element within a page, just as you can use it to uniquely identify any element on a page. It is good practice to give every <form> element an id attribute because many forms make use of style sheets and scripts, which may require the use of the id attribute to identify the form.

HTML Forms – Attributes

- The enctype Attribute

If you use the HTTP post method to send data to the server, you can use the enctype attribute to specify how the browser encodes the data before it sends it to the server. Browsers tend to support three types of encoding:

- application/x-www-form-urlencoded, which is the standard method most forms use. Browsers use this because some characters, such as spaces, the plus sign, and some other nonalphanumeric characters, cannot be sent to the web server. Instead, they are replaced by other characters that are used to represent them.
- multipart/form-data, which enables the data to be sent in parts, where each consecutive part corresponds to a form control, in the order it appears in the form. It is commonly used when visitors need to upload files (such as photos) to a server. Each part can have an optional content-type header of its own indicating the type of data for that form control.
- text/plain, which sends the data to the server as unmodified, plain text. If this attribute is not used, browsers use the first value. As a result, you are likely to use this attribute only if your form allows users to upload a file (such as an image) to the server, or if they are going to use non-ASCII characters, in which case the enctype attribute should be given the second value:

enctype="multipart/form-data"

HTML Forms – Attributes

- The novalidate Attribute

The novalidate attribute is a boolean attribute that indicates whether the form should be validated when submitted. If present, the browser should *not* validate the form prior to submission.

<form action= https://www.google.com novalidate>

- The target Attribute

The target attribute specifies a named window or keyword for the processing of the form submission. To process a form in a new window, for example, you could set the target of a <form> element to "_blank".

<form action= https://www.google.com target="_blank" >

- The autocomplete Attribute

This attribute indicates whether or not the browser should auto-fill form values. Setting it to off indicates that the browser should not auto-fill any values. The default value is on.

<form action= https://www.google.com autocomplete =“off" >

HTML Forms Controls – Text Input

- The single line input text control

  Used for items that require only one line of user input. They are created using the <input> element and sometimes referred to simply as *textboxes*.

- The password input control

  These are just like the single-line text input, except they mask the characters a user enters so that the characters cannot be seen on the screen. They tend to show either an asterisk or a dot instead of each character the user types so that someone cannot simply look at the screen to see what a user types in

- The multiline text input control

  Used when the user is required to give details that may be longer than a single sentence. Multiline input controls are created with the <textarea> element.

*Sample Exercise – formExample2Submit

HTML Forms Controls – New Input Elements

- color - For choosing a color by using a color wheel
- date - For entering a calendar date.
- email - For entering either a single e-mail address or a list of e-mail addresses. Multiple addresses can be entered in a comma-separated list.
- tel - For entering telephone numbers
- url - For entering website URLs

*Sample Exercise – formExample3NewElements

HTML Forms Controls – Input Elements Attributes

Attributes for Input Elements

- maxlength - Maximum number of characters the user can enter.
- autofocus - Boolean attribute that indicates that the element should have focus when the page loads.
- required - Boolean attribute that indicates whether the input is a required element.
- placeholder - Specifies a sample value to show users as a hint.
- disabled - Boolean attribute that disables the select box, preventing user intervention(disabled form elements do not receive focus.)
- readonly - Boolean attribute that indicates whether the user can edit the form field.(readonly form elements can receive the focus)

*Sample Exercise – formExample3NewElements

HTML Forms– Button

Buttons are most commonly used to submit a form; although, they are sometimes used to clear or reset a form and even to trigger client-side scripts. (For example, on a basic loan calculator form within the page, a button might be used to trigger the script that calculates repayments without sending the data to the server.)

You can create a button in three ways:(Explained in detail in next slides)

1. Using an <input> element with a type attribute whose value is submit, reset, or button
2. Using an <input> element with a type attribute whose value is image
3. Using a <button> element

With each different method, the button appears slightly different.

*Sample Exercise – formExample4Buttons

HTML Forms– Button(Contd.)

Create Buttons using <input> element – 3 ways (Example codes below)

1.submit, which creates a button that submits a form when pressed

```
<p> <input type="submit" name ="button1" value="Submit" > </p>
```

2.reset, which creates a button that automatically resets form controls to their initial values as they were when the page loaded

```
<p> <input type="reset" name ="button2" value="Clear form">
</p>
```

3.button, which creates a button that is used to trigger a client-side script when the user clicks that button

```
<p> <input type="button" name ="button3" value="Calculate"
onclick="calculate()"> </p>
```

*Sample Exercise – formExample4Buttons

HTML Forms– Button(Contd.)

Using Image for Buttons

You can use an image for a button rather than use the standard button that a browser renders for you. Creating an image button is similar to creating any other button, but the type attribute has a value of image:

```
  <p> <input type="image" src="submit.gif" height="100"
width="100" alt="Submit" name="btnImage">
```

Using the Button Element

- The <button> element is a more recent introduction that enables you to specify what appears on a button between an opening <button> tag and a closing </button> tag so you can include textual markup or image elements between these tags.

```
<p> <button type="submit" >Submit </button>   </p>
```

*Sample Exercise – formExample4Buttons

HTML Forms– Examples Programs 5,6,7,8

These examples are not covered in Exam, but I strongly recommend you to read these for your development

formExample5 – HTML Elements like checkbox, radio button, checklist & dropdown

formExample6 – File Upload

formExample7 – progress Bar & datalist

formExample8 – fieldset

*I have added comments in programs for your understanding - Do let me know if you need any help

Summary

HTML Tables
Table Elements & Attributes
HTML Forms
Sample(Several) Exercises