

HTML

1. Empty Tag vs Container Tag

Empty Tag	Container Tag
HTML elements with no content are called empty elements. Example: 	Container Elements contains content between opening and closing tag <p>Hello</p>
These element cannot have any nested elements or text nodes.	Can have one or many nested nodes
Does not require a closing tag	Closing tag is required for it to be a valid HTML element
 , <hr> , <input> , , <link>	<html> , <head> , <body> , <title> , <p> , <h1> <a>

2. How HTML images are affected by Bootstrap 4

- Bootstrap 4 adds responsive behavior to HTML images
- It also adds lightweight styles to them—all via classes
- `class="img-fluid"` is used to make the image responsive
- `class="img-thumbnail"` is used to display image as thumbnail, adds 1px border around image
- border-radius class such as
 - rounded, rounded-top, rounded-right, rounded-bottom, rounded-l

can be used to define the border and shape of image

- Images can be aligned using classes such as `float-left` , `float-right` , `mx-auto d-block`

3 . HTML Elements

- An HTML element is an individual component of an HTML document or web page. HTML is composed of a tree of HTML nodes, such as text nodes.
- A typical HTML element includes an opening tag with some attributes, enclosed text content, and a closing tag. These are called Container elements.
- Some HTML elements does not contains nested nodes, called Emplt Elements.
- Examples:
 - `<p> Hello World! </p>` : Container Element
 - `
` , :Empty Elements
- 10 HTML Elements:
 1. `<html>...</html>`
 2. `<head>...</head>`
 3. `<body>...</body>`
 4. `
`
 5. `<hr>`
 6. ``
 7. `<link >`
 8. `<p>...</p>`
 9. `<h1>...</h1>`
 10. `...`

4. HTML Form Using Bootstrap

```
<form class="form-inline">
    <label class="sr-only" for="inputName">Name</label>
    <input type="text" id="inputName" class="form-control ml-2 mb-2 btn border">
    <label class="sr-only" for="emailID">Email</label>
    <input type="email" id="emailID" class="form-control ml-2 mb-2 btn border">
    <button type="submit" class="form-control ml-2 mb-2 btn border">Submit</button>
</form>
```

5. Table In HTML

```
<table>
    <thead>
        <tr>
            <th>Name</th>
            <th>Roll</th>
            <th>Marks</th>
        </tr>
    </thead>
    <tbody>
        <tr>
            <td>R</td>
            <td>10</td>
            <td>100</td>
        </tr>
        <tr>
            <td>R</td>
            <td>10</td>
            <td>100</td>
        </tr>
        <tr>
            <td>R</td>
            <td>10</td>
            <td>100</td>
        </tr>
    </tbody>
</table>
```

6. Types of List in HTML

- Unordered HTML List
- Ordered HTML List
- HTML Description Lists

6.1 Unordered HTML List

- The UL element a list of items, where the order of the items is not important
- An unordered list starts with the `` tag.
- Each list item starts with the `` tag.
- The CSS `list-style-type` property is used to define the style of the list item marker:
 - disc
 - circle
 - square
 - none

```
<ul style="list-style-type:square">
    <li>Coffee</li>
    <li>Tea</li>
    <li>Milk</li>
</ul>
```

6.2 Ordered HTML List

- The ol element represents a list of items, where the items have been intentionally ordered
- Changing the order would change the meaning of the document.
- An ordered list starts with the `` tag.
- Each list item starts with the `` tag.
- The `type` attribute of the `` tag, defines the type of the list item

marker:

- type="1" : numbers (default)
- type="A" : uppercase letters
- type="a" : lowercase letters
- type="I" : uppercase roman numbers
- type="i" : lowercase roman numbers

```
<ol type="A">
    <li>Coffee</li>
    <li>Tea</li>
    <li>Milk</li>
<ol>
```

6.3 HTML Description List

- A description list is a list of terms, with a description of each term.
- The `<dl>` tag defines the description list
- The `<dt>` tag defines the term (name)
- and the `<dd>` tag describes each term:

```
<dl>
    <dt>Coffee</dt>
        <dd>- black hot drink</dd>
    <dt>Milk</dt>
        <dd>- white cold drink</dd>
</dl>
```

7. HTML vs. XML

HTML	XML
HTML stands for HyperText Markup language	XML Stands for Extensible Markup Language
Main purpose of HTML is Presentation of Data	XML is mainly used for Transfer of data
Not case sensitive	XML is case sensitive
Closing Tag is not always required	Closing tag is necessary in XML
HTML has its own predefined tags	Can define tags according to our need

8. How is JS used in HTML Document

- `<script></script>` element is used to include JavaScript in HTML document
- Scripts can be placed in the `<body>`, or in the `<head>` section of an HTML page, or in both
- To use an external script, put the name of the script file in the `src` (source) attribute of a `<script>` tag
 - `<script src="myJs.js"></script>`
- External JS file cannot include `<script>...<script>`

9. HTML program with Script for mouseover & mouseout

- onmouseover & onmouseout events are used

```
<html>
  <head>
    <script>
      function mOver(obj) {
        obj.innerHTML = "Thank You"
      }

      function mOut(obj) {
        obj.innerHTML = "Mouse Over Me"
      }
    </script>
  </head>
<body>
  <div onmouseover="mOver(this)" onmouseout="mOut(this)">M
</body>
</html>
```

10. COLSPAN & ROWSPAN

- colspan
 - colspan is an attribute
 - It is used to make a cell span more than one column
 - example:

```
<table style="width:100%">
  <tr>
    <th>Name</th>
    <th colspan="2">Telephone</th>
  </tr>
  <tr>
    <td>Bill Gates</td>
    <td>55577854</td>
    <td>55577855</td>
  </tr>
</table>
```

- rowspan
 - rowspan is also an attribute
 - It is used to make a cell span more than one row
 - example:

```
<table style="width:100%">
  <tr>
    <th>Name:</th>
    <td>Bill Gates</td>
  </tr>
  <tr>
    <th rowspan="2">Telephone:</th>
    <td>55577854</td>
  </tr>
  <tr>
    <td>55577855</td>
  </tr>
</table>
```