CHAPTER 6
TABLE AND LIST

Learning Objectives:
After reading this INFORMATION SHEET, YOU MUST be able to:
- ❖ Create a table within a web page.
- ❖ Insert ordered and unordered lists within a web page.

This chapter demonstrates about the HTML Tables and List which are used to insert the data like images, text, links into rows and columns of cells and organize the data in the websites.
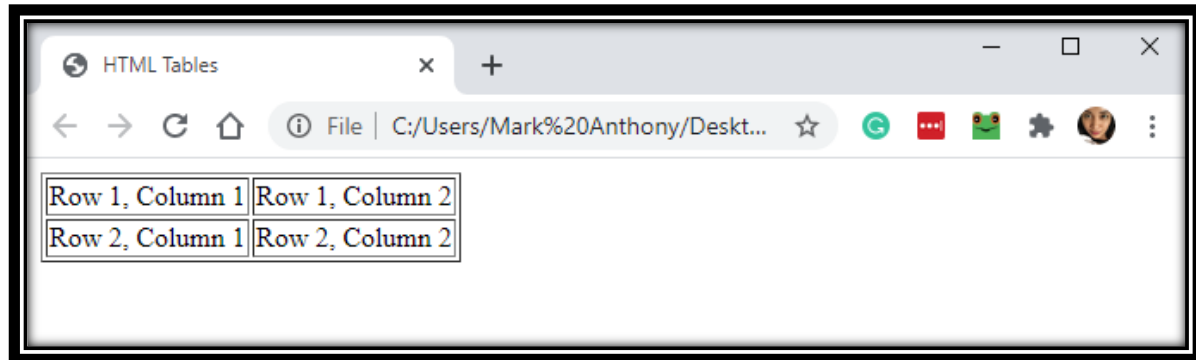
CHAPTER 6.1: Tables

The HTML tables allow web authors to arrange data like text, images, links, other tables, etc. into rows and columns of cells.

The HTML tables are created using the **<table>** tag in which the **<tr>** tag is used to create table rows and **<td>** tag is used to create data cells. The elements under <td> are regular and left aligned by default

Example

```
<!DOCTYPE html>
<html>
    <head>
        <title>HTML Tables</title>
    </head>
    <body>
        <table border = "1">
            <tr>
                <td>Row 1, Column 1</td>
                <td>Row 1, Column 2</td>
            </tr>
            <tr>
                <td>Row 2, Column 1</td>
                <td>Row 2, Column 2</td>
            </tr>
        </table>
    </body>
</html>
```

This will produce the following result –

Here, the **border** is an attribute of <table> tag and it is used to put a border across all the cells. If you do not need a border, then you can use border = "0".
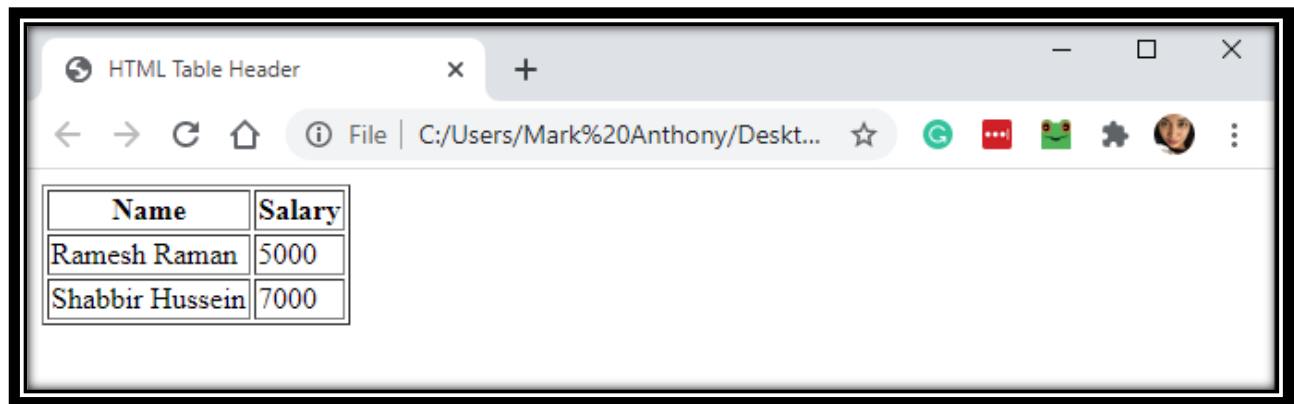
Table Heading

Table heading can be defined using **<th>** tag. This tag will be put to replace <td> tag, which is used to represent actual data cell. Normally you will put your top row as table heading as shown below, otherwise you can use <th> element in any row. Headings, which are defined in <th> tag are centered and bold by default.

Example

```
<!DOCTYPE html>
<html>
   <head>
      <title>HTML Table Header</title>
   </head>
   <body>
      <table border = "1">
         <tr>
            <th>Name</th>
            <th>Salary</th>
         </tr>
         <tr>
            <td>Ramesh Raman</td>
            <td>5000</td>
         </tr>

         <tr>
            <td>Shabbir Hussein</td>
            <td>7000</td>
         </tr>
      </table>
   </body>
</html>
```

This will produce the following result –

Cellpadding and Cellspacing Attributes

There are two attributes called *cellpadding* and *cellspacing* which you will use to adjust the white space in your table cells. The cellspacing attribute defines space between table cells, while cellpadding represents the distance between cell borders and the content within a cell.

Example

```
<!DOCTYPE html>
<html>

    <head>
        <title>HTML Table Cellpadding</title>
    </head>

    <body>
        <table border = "1" cellpadding = "5" cellspacing = "5">
            <tr>
                <th>Name</th>
                <th>Salary</th>
            </tr>
            <tr>
                <td>Ramesh Raman</td>
                <td>5000</td>
            </tr>
            <tr>
                <td>Shabbir Hussein</td>
                <td>7000</td>
            </tr>
        </table>
    </body>

</html>
```
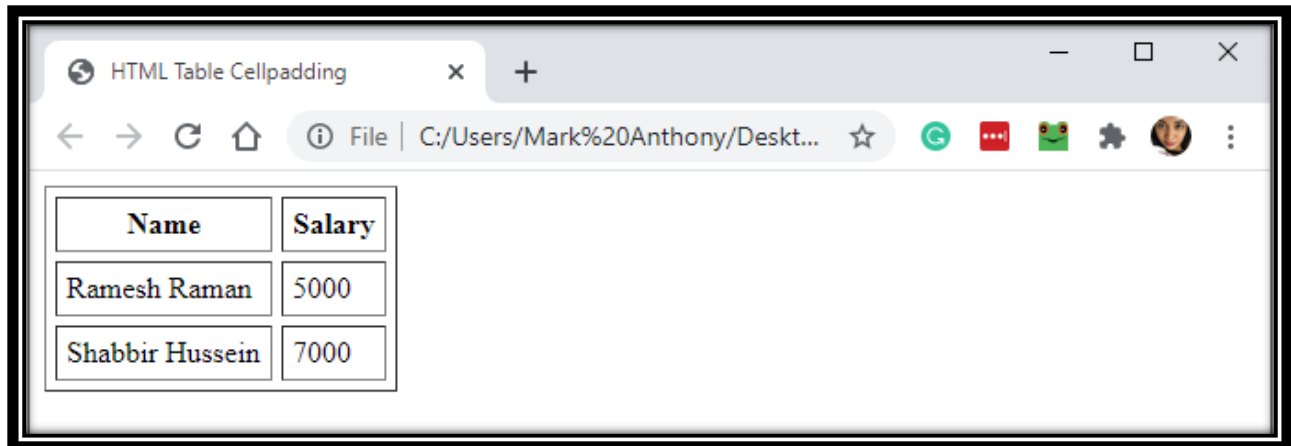
This will produce the following result −
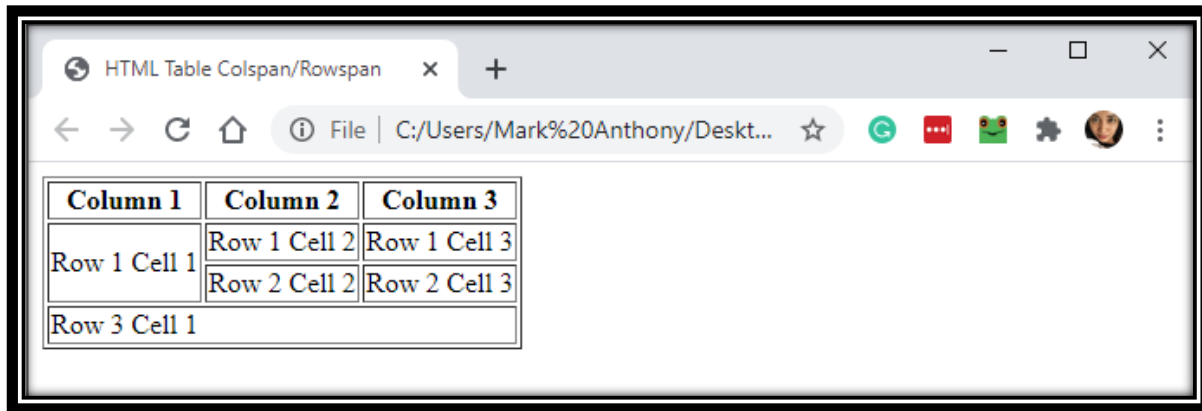

Colspan and Rowspan Attributes

You will use **colspan** attribute if you want to merge two or more columns into a single column. Similar way you will use **rowspan** if you want to merge two or more rows.

Example

```
<!DOCTYPE html>
<html>
    <head>
        <title>HTML Table Colspan/Rowspan</title>
    </head>

    <body>
        <table border = "1">
            <tr>
                <th>Column 1</th>
                <th>Column 2</th>
                <th>Column 3</th>
            </tr>
            <tr>
                <td rowspan = "2">Row 1 Cell 1</td>
                <td>Row 1 Cell 2</td>
                <td>Row 1 Cell 3</td>
            </tr>
            <tr>
                <td>Row 2 Cell 2</td>
                <td>Row 2 Cell 3</td>
            </tr>
            <tr>
                <td colspan = "3">Row 3 Cell 1</td>
            </tr>
        </table>
    </body>
</html>
```

This will produce the following result –

Tables Backgrounds

You can set table background using one of the following two ways −

- **bgcolor** attribute − You can set background color for whole table or just for one cell.

- **background** attribute − You can set background image for whole table or just for one cell.

You can also set border color also using **bordercolor** attribute.

Note − The *bgcolor*, *background*, and *bordercolor* attributes deprecated in HTML5. Do not use these attributes.

Example

```
<!DOCTYPE html>
<html>

   <head>
      <title>HTML Table Background</title>
   </head>

   <body>
      <table border = "1" bordercolor = "green" bgcolor = "yellow">
         <tr>
            <th>Column 1</th>
            <th>Column 2</th>
            <th>Column 3</th>
         </tr>
         <tr>
            <td rowspan = "2">Row 1 Cell 1</td>
            <td>Row 1 Cell 2</td>
            <td>Row 1 Cell 3</td>
         </tr>
         <tr>
```

```
            <td>Row 2 Cell 2</td>
            <td>Row 2 Cell 3</td>
        </tr>
        <tr>
            <td colspan = "3">Row 3 Cell 1</td>
        </tr>
    </table>
</body>

</html>
```
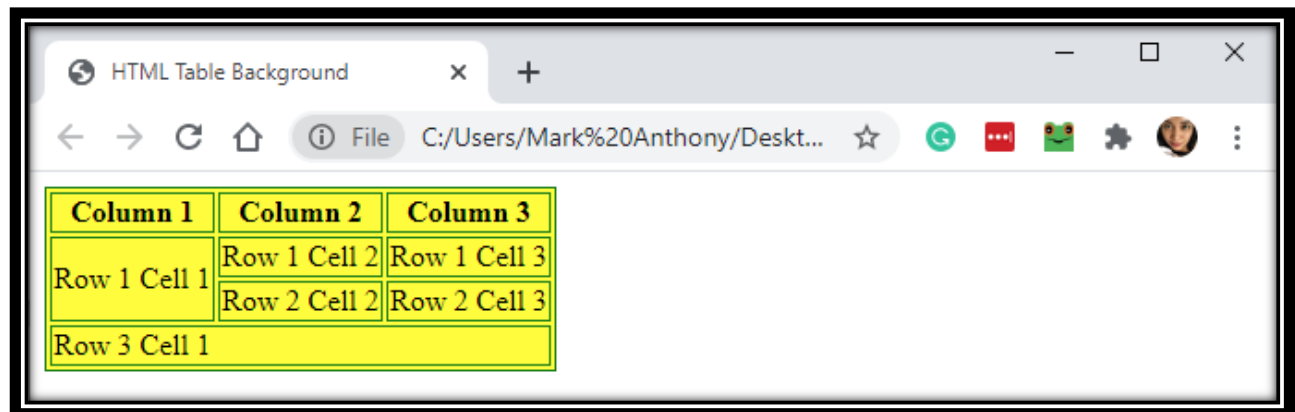
This will produce the following result –

Here is an example of using **background** attribute. Here we will use an image available in /images directory.

```
<!DOCTYPE html>
<html>
    <head>
        <title>HTML Table Background</title>
    </head>

    <body>
        <table border = "1" bordercolor = "green" background =
"/images/test.png">
        <tr>
            <th>Column 1</th>
            <th>Column 2</th>
            <th>Column 3</th>
        </tr>
        <tr>
            <td rowspan = "2">Row 1 Cell 1</td>
            <td>Row 1 Cell 2</td><td>Row 1 Cell 3</td>
        </tr>
        <tr>
```

```
                <td>Row 2 Cell 2</td>
                <td>Row 2 Cell 3</td>
            </tr>
            <tr>
                <td colspan = "3">Row 3 Cell 1</td>
            </tr>
        </table>
    </body>

</html>
```

This will produce the following result. Here background image did not apply to table's header.
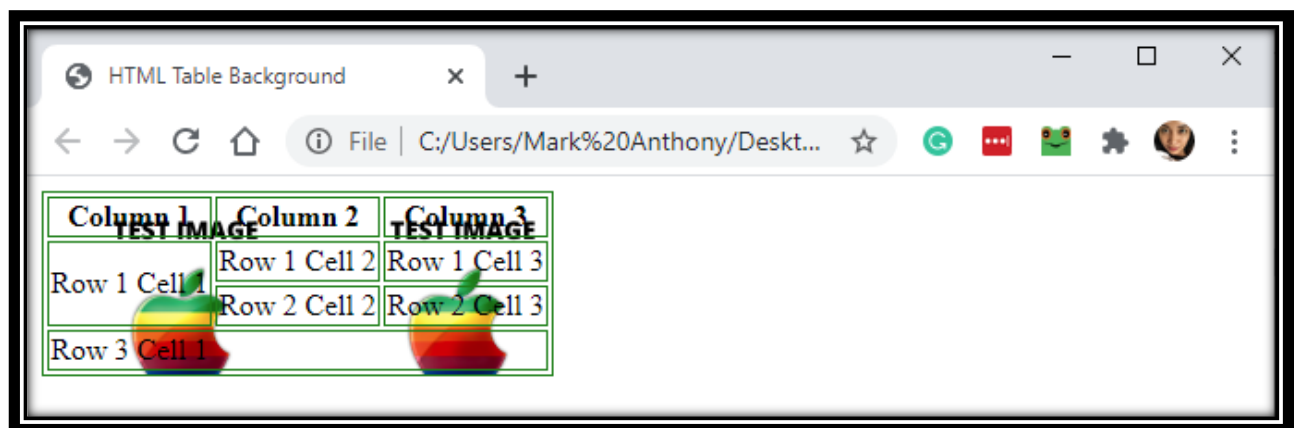

Table Height and Width

You can set a table width and height using **width** and **height** attributes. You can specify table width or height in terms of pixels or in terms of percentage of available screen area.

Example

```html
<!DOCTYPE html>
<html>

    <head>
        <title>HTML Table Width/Height</title>
    </head>

    <body>
        <table border = "1" width = "400" height = "150">
            <tr>
                <td>Row 1, Column 1</td>
                <td>Row 1, Column 2</td>
            </tr>

            <tr>
                <td>Row 2, Column 1</td>
                <td>Row 2, Column 2</td>
            </tr>
        </table>
    </body>

</html>
```

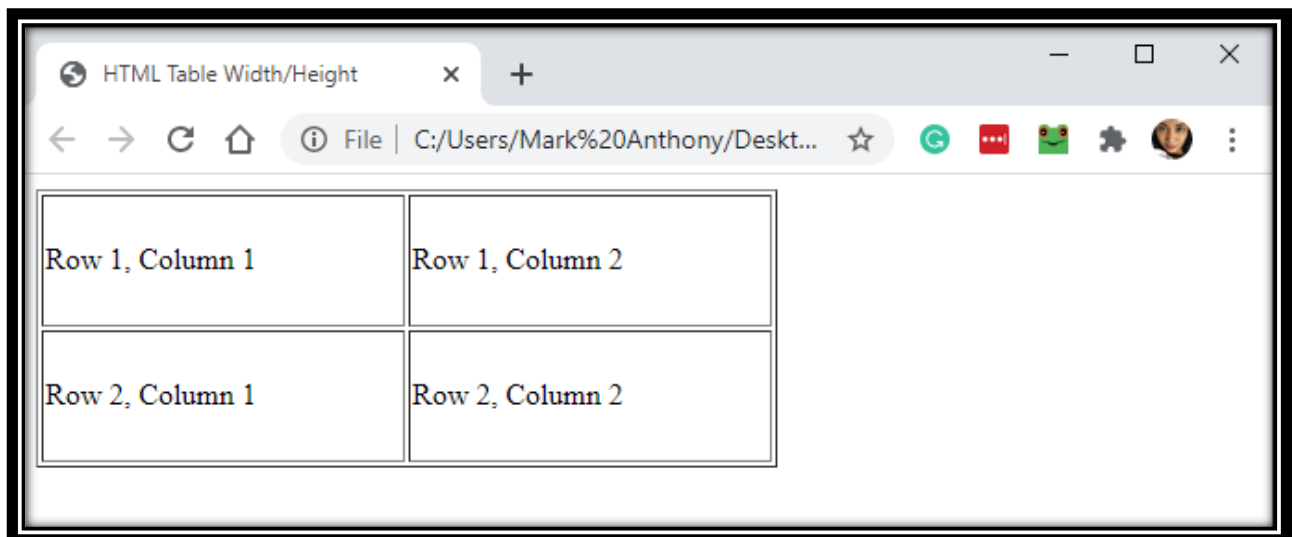This will produce the following result –

Table Caption

The **caption** tag will serve as a title or explanation for the table and it shows up at the top of the table. This tag is deprecated in newer version of HTML/XHTML.

Example

```html
<!DOCTYPE html>
<html>

    <head>
        <title>HTML Table Caption</title>
    </head>

    <body>
        <table border = "1" width = "100%">
            <caption>This is the caption</caption>

            <tr>
                <td>row 1, column 1</td><td>row 1, columnn 2</td>
            </tr>

            <tr>
                <td>row 2, column 1</td><td>row 2, columnn 2</td>
            </tr>
        </table>
    </body>

</html>
```
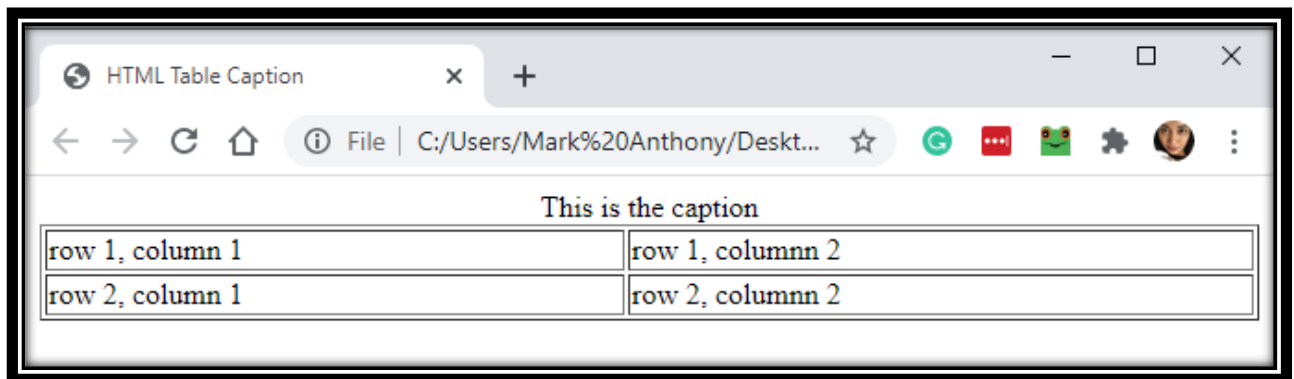
This will produce the following result –

Table Header, Body, and Footer

Tables can be divided into three portions − a header, a body, and a foot. The head and foot are rather similar to headers and footers in a word-processed document that remain the same for every page, while the body is the main content holder of the table.

The three elements for separating the head, body, and foot of a table are −

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

A table may contain several <tbody> elements to indicate *different pages* or groups of data. But it is notable that <thead> and <tfoot> tags should appear before <tbody>

Example

```html
<!DOCTYPE html>
<html>
    <head>
        <title>HTML Table</title>
    </head>

    <body>
        <table border = "1" width = "100%">
            <thead>
                <tr>
                    <td colspan = "4">This is the head of the table</td>
                </tr>
            </thead>

            <tfoot>
                <tr>
                    <td colspan = "4">This is the foot of the table</td>
                </tr>
            </tfoot>

            <tbody>
                <tr>
                    <td>Cell 1</td>
                    <td>Cell 2</td>
                    <td>Cell 3</td>
                    <td>Cell 4</td>
                </tr>
            </tbody>
        </table>
    </body>
</html>
```
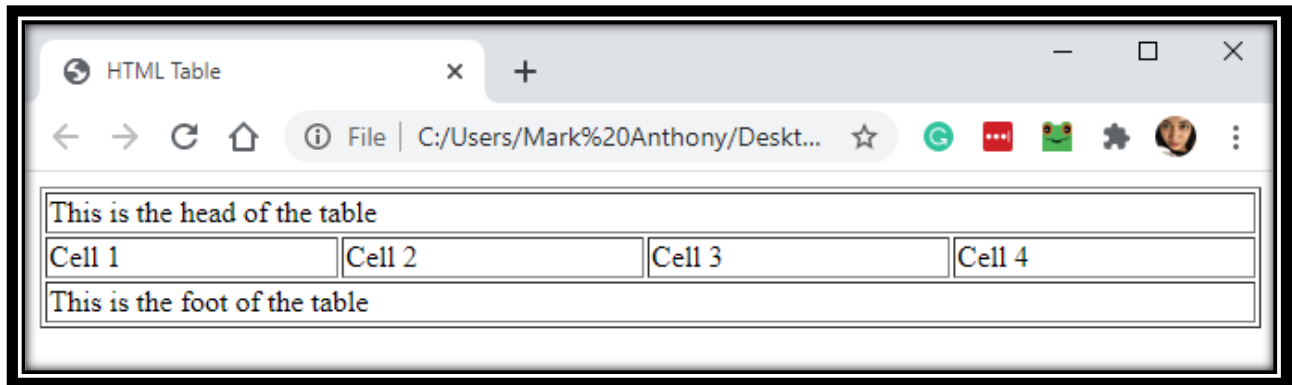
This will produce the following result –
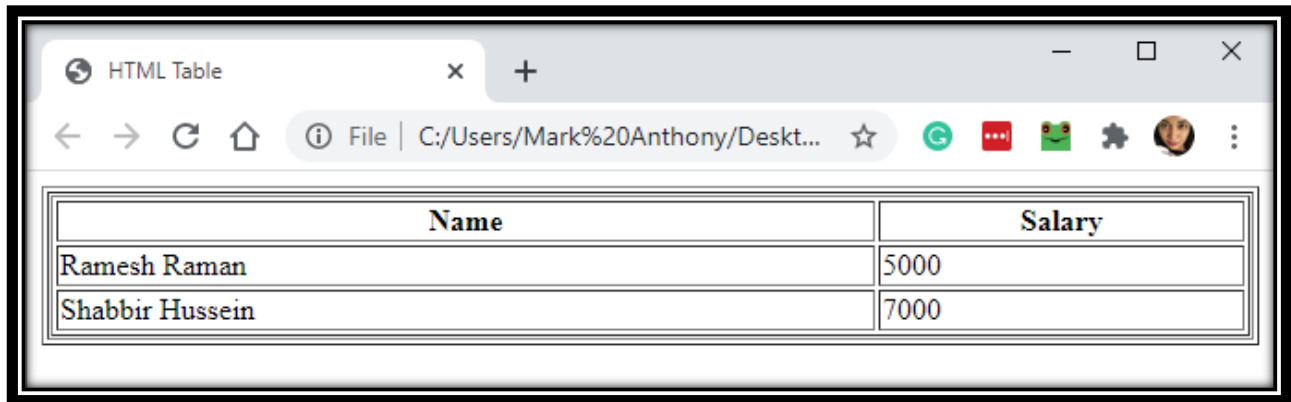

Nested Tables

You can use one table inside another table. Not only tables you can use almost all the tags inside table data tag <td>.

Example

Following is the example of using another table and other tags inside a table cell.

```
<!DOCTYPE html>
<html>
   <head>
      <title>HTML Table</title>
   </head>
   <body>
      <table border = "1" width = "100%">
         <tr>
            <td>
               <table border = "1" width = "100%">
                  <tr>
                     <th>Name</th>
                     <th>Salary</th>
                  </tr>
                  <tr>
                     <td>Ramesh Raman</td>
                     <td>5000</td>
                  </tr>
                  <tr>
                     <td>Shabbir Hussein</td>
                     <td>7000</td>
                  </tr>
               </table>
            </td>
         </tr>
      </table>
   </body>
</html>
```

This will produce the following result –

CHAPTER 6.2: HTML List

HTML offers web authors three ways for specifying lists of information. All lists must contain one or more list elements. Lists may contain −

- **<ul>** − An unordered list. This will list items using plain bullets.

- **<ol>** − An ordered list. This will use different schemes of numbers to list your items.

- **<dl>** − A definition list. This arranges your items in the same way as they are arranged in a dictionary.
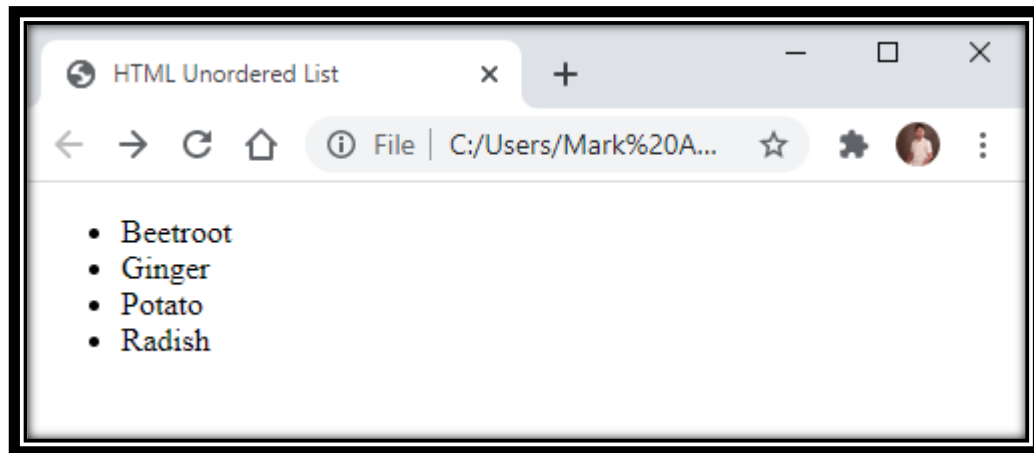
HTML Unordered Lists

An unordered list is a collection of related items that have no special order or sequence. This list is created by using HTML **<ul>** tag. Each item in the list is marked with a bullet.

Example

```
<!DOCTYPE html>
<html>
    <head>
        <title>HTML Unordered List</title>
    </head>

    <body>
        <ul>
            <li>Beetroot</li>
            <li>Ginger</li>
            <li>Potato</li>
            <li>Radish</li>
        </ul>
    </body>
</html>
```
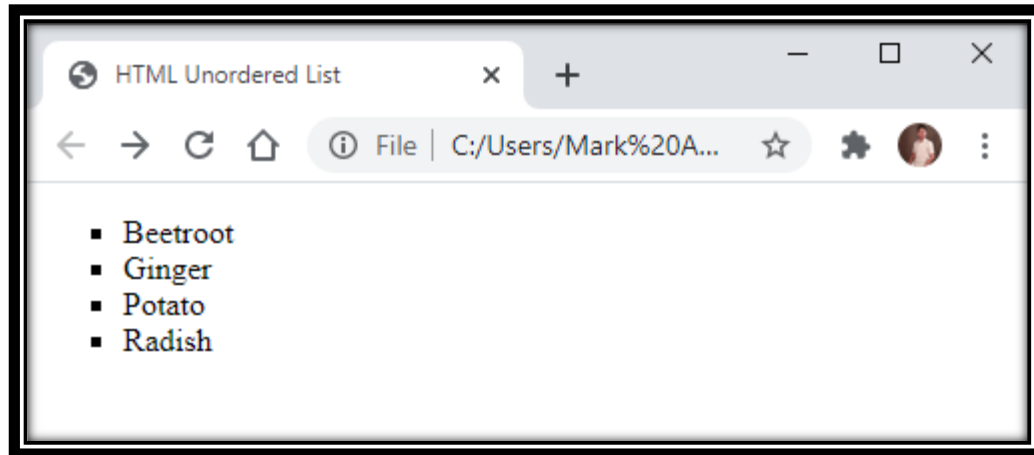
This will produce the following result –

The type Attribute

You can use **type** attribute for <ul> tag to specify the type of bullet you like. By default, it is a disc. Following are the possible options −

```
<ul type = "square">
<ul type = "disc">
<ul type = "circle">
```

Example

Following is an example where we used <ul type = "square">

```
<!DOCTYPE html>
<html>

    <head>
        <title>HTML Unordered List</title>
    </head>

    <body>
        <ul type = "square">
            <li>Beetroot</li>
            <li>Ginger</li>
            <li>Potato</li>
            <li>Radish</li>
        </ul>
    </body>

</html>
```
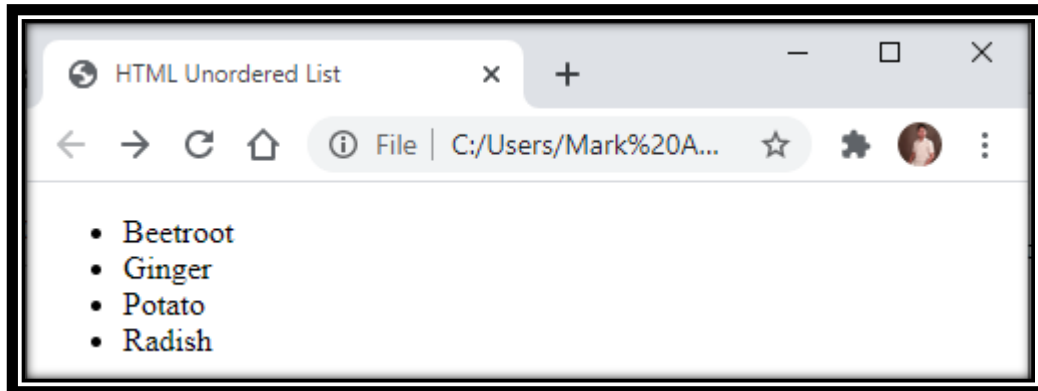
This will produce the following result –

Example

Following is an example where we used <ul type = "disc"> −

```
<!DOCTYPE html>
<html>
   <head>
      <title>HTML Unordered List</title>
   </head>

   <body>
      <ul type = "disc">
         <li>Beetroot</li>
         <li>Ginger</li>
         <li>Potato</li>
         <li>Radish</li>
      </ul>
   </body>
</html>
```
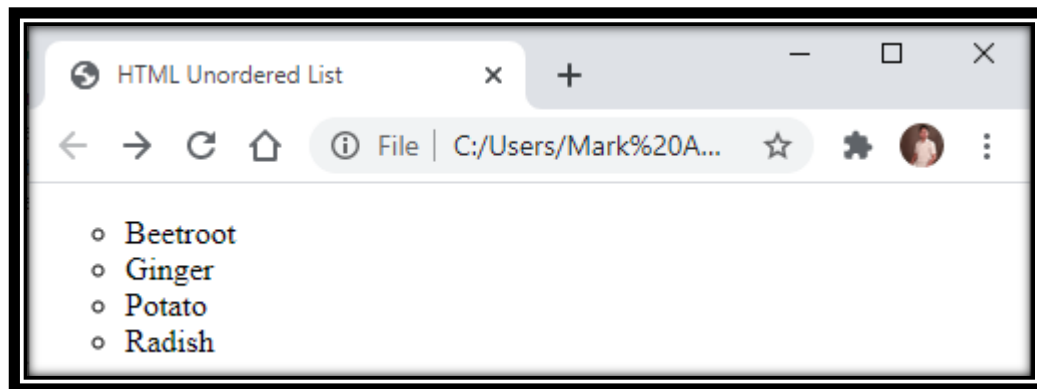
This will produce the following result –

Example

Following is an example where we used <ul type = "circle"> –

```html
<!DOCTYPE html>
<html>

   <head>
      <title>HTML Unordered List</title>
   </head>

   <body>
      <ul type = "circle">
         <li>Beetroot</li>
         <li>Ginger</li>
         <li>Potato</li>
         <li>Radish</li>
      </ul>
   </body>

</html>
```
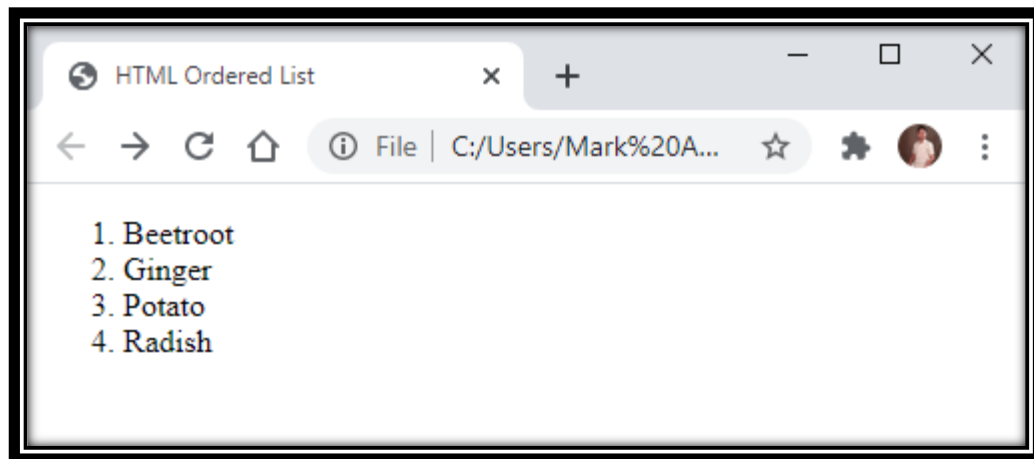
This will produce the following result –

HTML Ordered Lists

If you are required to put your items in a numbered list instead of bulleted, then HTML ordered list will be used. This list is created by using **<ol>** tag. The numbering starts at one and is incremented by one for each successive ordered list element tagged with <li>.

Example

```
<!DOCTYPE html>
<html>

    <head>
        <title>HTML Ordered List</title>
    </head>

    <body>
        <ol>
            <li>Beetroot</li>
            <li>Ginger</li>
            <li>Potato</li>
            <li>Radish</li>
        </ol>
    </body>

</html>
```

This will produce the following result –

The type Attribute

You can use **type** attribute for <ol> tag to specify the type of numbering you like. By default, it is a number. Following are the possible options −

```
<ol type = "1"> - Default-Case Numerals.
<ol type = "I"> - Upper-Case Numerals.
<ol type = "i"> - Lower-Case Numerals.
<ol type = "A"> - Upper-Case Letters.
<ol type = "a"> - Lower-Case Letters.
```
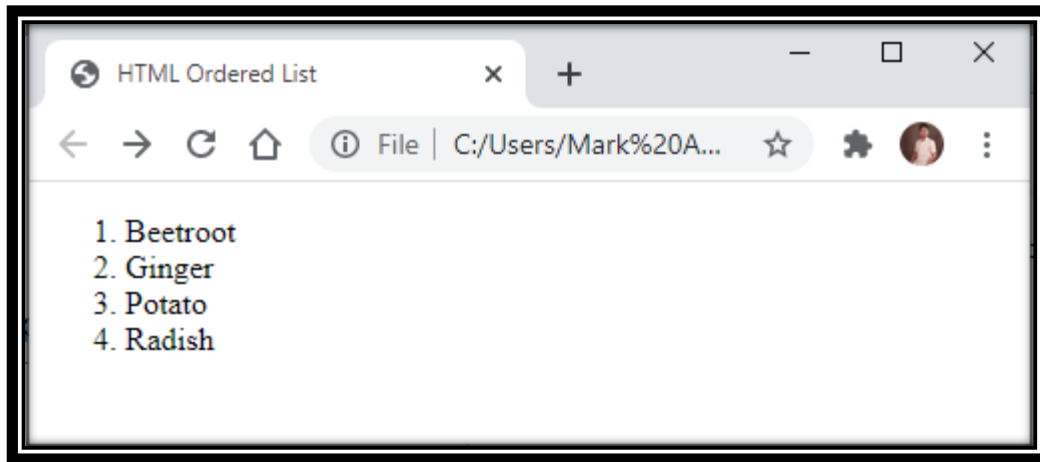
Example

Following is an example where we used <ol type = "1">

```
<!DOCTYPE html>
<html>

   <head>
      <title>HTML Ordered List</title>
   </head>

   <body>
      <ol type = "1">
         <li>Beetroot</li>
         <li>Ginger</li>
         <li>Potato</li>
         <li>Radish</li>
      </ol>
   </body>

</html>
```
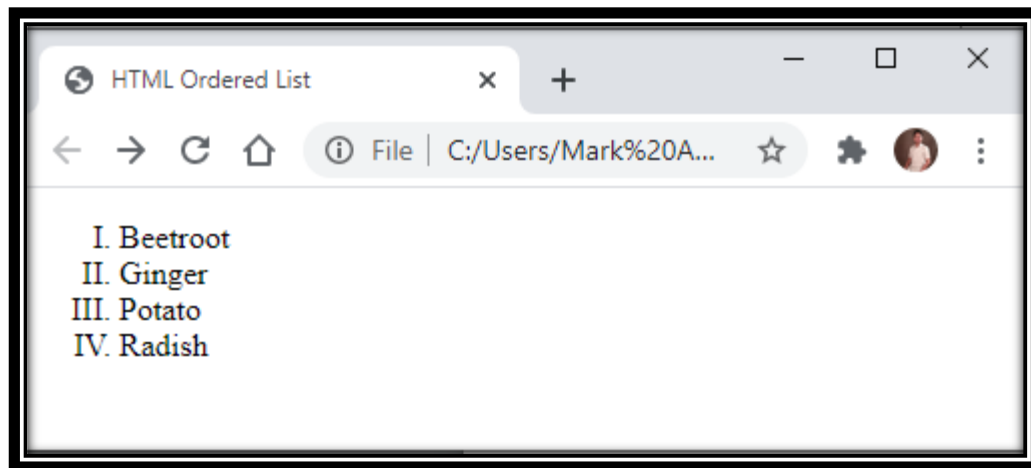
This will produce the following result –

Example

Following is an example where we used <ol type = "I">

```html
<!DOCTYPE html>
<html>

   <head>
      <title>HTML Ordered List</title>
   </head>

   <body>
      <ol type = "I">
         <li>Beetroot</li>
         <li>Ginger</li>
         <li>Potato</li>
         <li>Radish</li>
      </ol>
   </body>

</html>
```
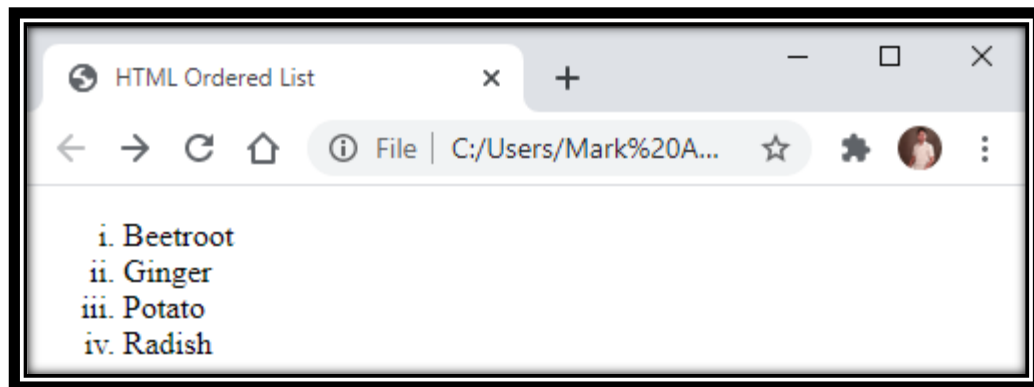
This will produce the following result –

Example

Following is an example where we used <ol type = "i">

```html
<!DOCTYPE html>
<html>

   <head>
      <title>HTML Ordered List</title>
   </head>

   <body>
      <ol type = "i">
         <li>Beetroot</li>
         <li>Ginger</li>
         <li>Potato</li>
         <li>Radish</li>
      </ol>
   </body>

</html>
```
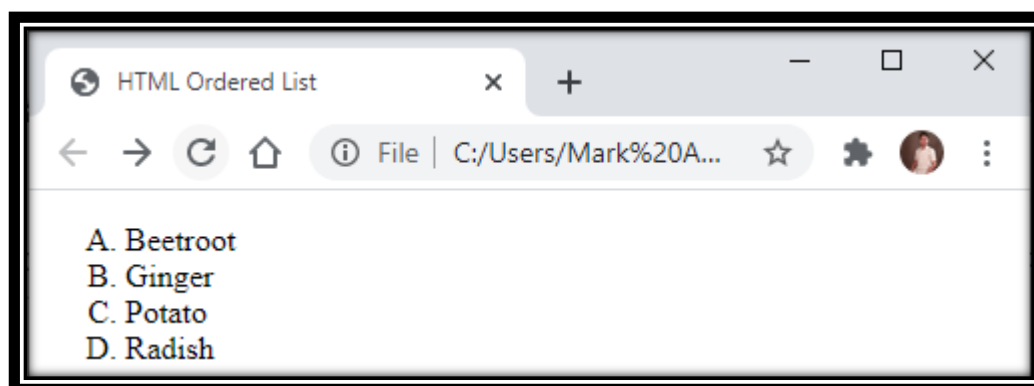
This will produce the following result –

Example

Following is an example where we used <ol type = "A" >

```
<!DOCTYPE html>
<html>

   <head>
      <title>HTML Ordered List</title>
   </head>

   <body>
      <ol type = "A">
         <li>Beetroot</li>
         <li>Ginger</li>
         <li>Potato</li>
         <li>Radish</li>
      </ol>
   </body>

</html>
```

This will produce the following result –

Example

Following is an example where we used <ol type = "a">
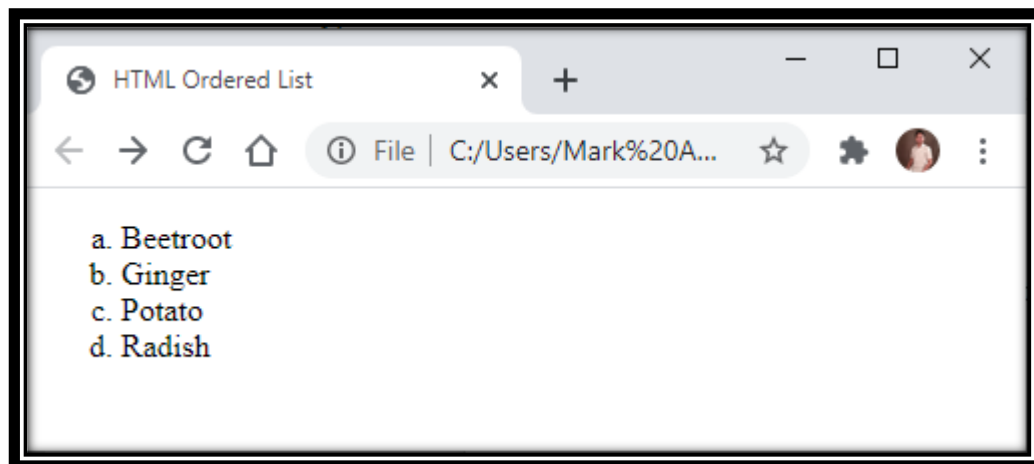
```
<!DOCTYPE html>
<html>

    <head>
        <title>HTML Ordered List</title>
    </head>

    <body>
        <ol type = "a">
            <li>Beetroot</li>
            <li>Ginger</li>
            <li>Potato</li>
            <li>Radish</li>
        </ol>
    </body>

</html>
```

This will produce the following result –

The start Attribute

You can use **start** attribute for <ol> tag to specify the starting point of numbering you need. Following are the possible options −

```
<ol type = "1" start = "4">     - Numerals starts with 4.
<ol type = "I" start = "4">     - Numerals starts with IV.
<ol type = "i" start = "4">     - Numerals starts with iv.
<ol type = "a" start = "4">     - Letters starts with d.
<ol type = "A" start = "4">     - Letters starts with D.
```

Example

Following is an example where we used <ol type = "i" start = "4" >

```html
<!DOCTYPE html>
<html>
    <head>
        <title>HTML Ordered List</title>
    </head>

    <body>
        <ol type = "i" start = "4">
            <li>Beetroot</li>
            <li>Ginger</li>
            <li>Potato</li>
            <li>Radish</li>
        </ol>
    </body>
</html>
```
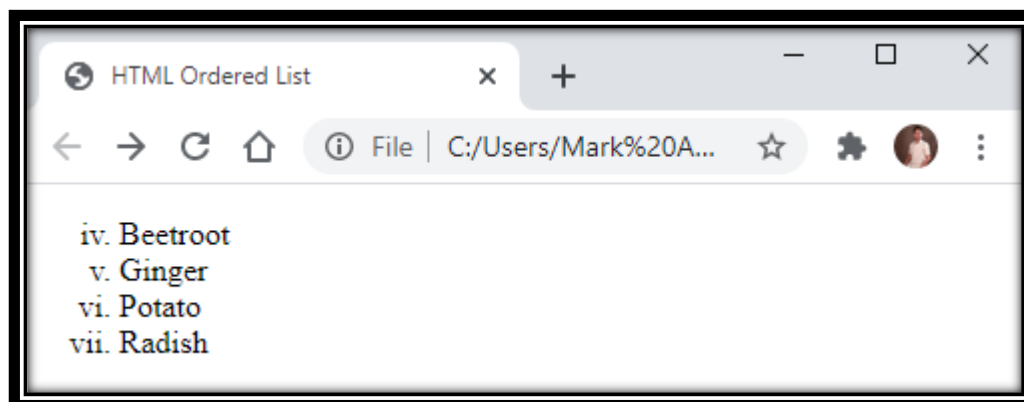
This will produce the following result –

HTML Definition Lists

HTML and XHTML supports a list style which is called **definition lists** where entries are listed like in a dictionary or encyclopedia. The definition list is the ideal way to present a glossary, list of terms, or other name/value list.

Definition List makes use of following three tags.

- <dl> − Defines the start of the list
- <dt> − A term
- <dd> − Term definition
- </dl> − Defines the end of the list

```
<!DOCTYPE html>
<html>

    <head>
        <title>HTML Definition List</title>
    </head>

    <body>
        <dl>
            <dt><b>HTML</b></dt>
            <dd>This stands for Hyper Text Markup Language</dd>
            <dt><b>HTTP</b></dt>
            <dd>This stands for Hyper Text Transfer Protocol</dd>
        </dl>
    </body>

</html>
```
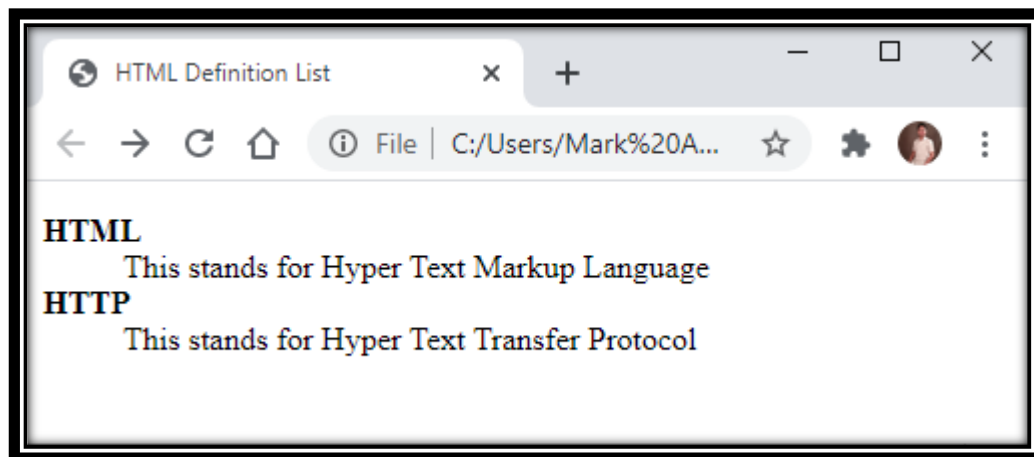
This will produce the following result –

VIDEO TUTORIAL LINK

HTML – Table

https://www.youtube.com/watch?v=GuOb9t1zeQg&list=PLWPirh4EWFpFI-w62QiV62FOVHcXnynon&index=10

HTML - List

https://www.youtube.com/watch?v=1Pv3dlO8KWw&list=PLWPirh4EWFpFI-w62QiV62FOVHcXnynon&index=11

REFERENCES:

- https://www.tutorialspoint.com/html/html_tables.htm
- https://www.tutorialspoint.com/html/html_lists.htm