Website Designing (WD)
Hyper Text Markup Language (HTML)
Module -15 HTML in Full Stack

1. HTML Tables

Theory Assignment

Question 1: Explain the structure of an HTML table and the purpose of each of the following elements: <table> , <tr> , <th> ,and <thead>.

->An HTML table organizes data into rows and columns. Here's the purpose of each element:

- **<table>**: The main container for the table, holding all the rows and columns.
- **<tr>**: Represents a table row, grouping cells in a horizontal line.
- **<th>**: Defines a header cell, typically used for column or row titles. Header cells are bold and centered by default.
- **<thead>**: Groups header rows (usually containing **<th>** elements) at the top of the table, making it easier to separate header information from the table's main data.

Question 2: What is the difference between colspan and rowspan in tables? Provide examples.

->In HTML tables, colspan and rowspan are attributes used to make table cells span across multiple columns or rows.

- **colspan**: Merges cells horizontally, across columns.
- **rowspan**: Merges cells vertically, across rows.

Examples:

Using colspan
html
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```
<table border="1">
  <tr>
    <th colspan="2">Header Spanning 2 Columns</th>
  </tr>
```

```
  <tr>
    <td>Cell 1</td>
    <td>Cell 2</td>
  </tr>
</table>
```

In this example, the header spans two columns.

Using rowspan
html
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```
<table border="1">
  <tr>
    <td rowspan="2">Cell Spanning 2 Rows</td>
    <td>Cell 1</td>
  </tr>
  <tr>
    <td>Cell 2</td>
  </tr>
</table>
```

Here, the first cell spans two rows, covering both Cell 1 and Cell 2 rows.

Question 3: Why should tables be used sparingly for layout purposes? What is a better alternative?

->Tables should be used sparingly for layout purposes because they are not flexible or responsive. Tables create rigid structures, making it hard to adjust the layout on different screen sizes, like mobile devices. They also clutter HTML, making it less accessible for screen readers and harder to maintain.

A better alternative is to use CSS (Cascading Style Sheets) with flexbox and grid layouts. These CSS tools allow for more flexible, responsive, and accessible layouts that adapt well to different devices and screen sizes.