

Tables in HTML

1. Basic Table Structure:

```
<table>
  <thead>
    <tr>
      <th>Header 1</th>
      <th>Header 2</th>
      <th>Header 3</th>
    </tr>
  </thead>
  <tbody>
    <tr>
      <td>Row 1, Cell 1</td>
      <td>Row 1, Cell 2</td>
      <td>Row 1, Cell 3</td>
    </tr>
    <tr>
      <td>Row 2, Cell 1</td>
      <td>Row 2, Cell 2</td>
      <td>Row 2, Cell 3</td>
    </tr>
  </tbody>
</table>
```

- The `<table>` element is used to define a table.
- `<thead>` contains the table header - a group of rows containing heading cells (`<th>`).
- `<tbody>` contains the main content - a group of rows containing data cells (`<td>`).
- Each row is defined by the `<tr>` element.
- Header cells are defined using `<th>`, while data cells are defined using `<td>`.

2. Table Headers and Cells:

- `<th>`: Table header cell.
- `<td>`: Table data cell.

3. Spanning Rows and Columns:

- **`colspan`**: Specifies the number of columns a cell should span.

```
<td colspan="2">Spanning two columns</td>
```

- **`rowspan`**: Specifies the number of rows a cell should span.

```
<td rowspan="2">Spanning two rows</td>
```

4. Table Borders:

- **`border css`**: Specifies the width of the table border.

```
table {  
  width: 100%;  
  border-collapse: collapse;  
}  
th,  
td {  
  border: 1px solid black;  
  padding: 8px;  
  text-align: left;  
}
```

5. Table Caption:

- **`<caption>`**: Adds a caption to the table.

```
<caption>My Table Caption</caption>
```

6. Table Styling with CSS:

- Use CSS to style tables for better appearance.

```
<style>  
  table {  
    width: 100%;
```

```
        border-collapse: collapse;
    }

    th, td {
        border: 1px solid black;
        padding: 8px;
        text-align: left;
    }
</style>
```

7. Accessibility:

- Use semantic tags for better accessibility.
- `**<thead>**`, `**<tbody>**`, `**<tfoot>**`, `**<th>**`, `**<caption>**`.

8. Responsive Tables:

- Make tables responsive for small screens.

```
/* Responsive styling for small screens */
@media (max-width: 600px) {
    th, td {
        display: block;
        width: 100%;
        box-sizing: border-box;
    }

    th, td:nth-child(1) {
        border-top: 1px solid #ddd;
    }
}
```

9. Attributes for Accessibility:

- `**scope**`: Specifies whether a header cell is a header for a column, row, or group of columns or rows.

```
<th scope="col">Column Header</th>
```