

HTML Table

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Basic Table Structure

An HTML table is created with a `<table>` element. Inside the `<table>`, you define table rows with `<tr>` (table row), and within each row, you define table cells with `<td>` (table data). A table is essentially built row by row.

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

Table Headers

For clarity and accessibility, the first row of a table should usually contain headers that describe the data in each column. Use the `<th>` (table header) element instead of `<td>` for these header cells. Browsers typically render `<th>` text as bold and centered.

```
<table>
  <tr>
    <th>Name</th>
    <th>Email</th>
    <th>Role</th>
  </tr>
  <tr>
    <td>John Doe</td>
    <td>john.doe@example.com</td>
    <td>Developer</td>
  </tr>
  <tr>
    <td>Jane Smith</td>
    <td>jane.smith@example.com</td>
    <td>Designer</td>
  </tr>
</table>
```

Spanning Columns & Rows

Sometimes a cell needs to span across multiple columns or rows.

- **colspan="number"**: Makes a cell span across number of columns.
- **rowspan="number"**: Makes a cell span across number of rows.

```
<table>
  <tr>
    <th>Name</th>
    <th colspan="2">Contact Information</th>
  </tr>
  <tr>
    <td>John Doe</td>
    <td>Email: john@example.com</td>
    <td>Phone: 123-456-789</td>
  </tr>
  <tr>
    <td rowspan="2">Schedule</td>
    <td>Monday</td>
    <td>9 AM - 5 PM</td>
  </tr>
  <tr>
    <td>Tuesday</td>
    <td>10 AM - 4 PM</td>
  </tr>
</table>
```

Semantic Table Grouping

For long or complex tables, it's good practice to group rows into a **head**, **body**, and **foot** section for better structure and accessibility.

- **<thead>**: Groups the header content.
- **<tbody>**: Groups the main body content.
- **<tfoot>**: Groups the footer content.

These elements don't change the table's appearance by default but are useful for styling and for screen readers.

```
<table>
  <thead>
    <tr>
      <th>Item</th>
      <th>Quantity</th>
      <th>Price</th>
    </tr>
  </thead>
  <tbody>
    <tr>
      <td>Apples</td>
      <td>10</td>
      <td>$5.00</td>
    </tr>
    <tr>
      <td>Oranges</td>
      <td>5</td>
      <td>$3.00</td>
    </tr>
  </tbody>
  <tfoot>
    <tr>
      <td colspan="2">Total</td>
      <td>$8.00</td>
    </tr>
  </tfoot>
</table>
```

Table Caption & Styling

A `<caption>` element should be the first child of a `<table>` and provides a title or description for the table. For styling, it's best practice to use CSS. A simple border attribute (`<table border="1">`) is outdated but can be useful for quick testing.

Month	Sign-ups
January	150
February	220

Monthly User Registrations

Practical

```
<table class="styled-table">
  <caption>
    Monthly User Registrations
  </caption>
  <thead>
    <tr>
      <th>Month</th>
      <th>Sign-ups</th>
    </tr>
  </thead>
  <tbody>
    <tr>
      <td>January</td>
      <td>150</td>
    </tr>
    <tr>
      <td>February</td>
      <td>220</td>
    </tr>
  </tbody>
</table>
```

```
<style>
  table.styled-table {
    width: 100%;
    border-collapse: collapse;
  }

  .styled-table th,
  .styled-table td {
    border: 1px solid #ccc;
    padding: 8px;
    text-align: left;
  }

  .styled-table th {
    background-color: #f2f2f2;
  }

  .styled-table caption {
    caption-side: bottom;
    padding-top: 10px;
    font-style: italic;
  }
</style>
```