



# Lecture 3 (extended): Web Design

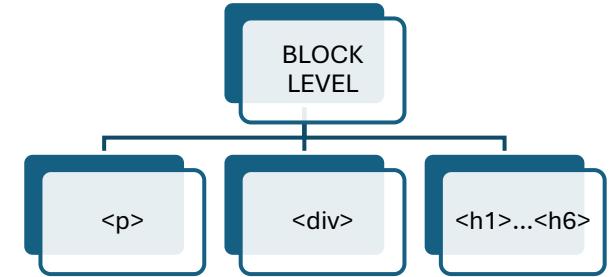
CSCSE11 : Bachelor of Science (I<sup>st</sup> Semester)

By

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Department of Computer Science  
Institute of Science  
Banaras Hindu University

# BLOCK LEVEL ELEMENTS



**<P>** :

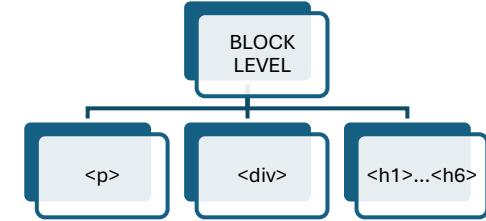
The `<p>` tag in HTML defines a paragraph of text and is used to structure written content on a webpage. It is a block-level element, meaning it starts on a new line and adds space before and after the text. The `<p>` tag supports global attributes like `class`, `id`, and `style` for customization and formatting.

```
<p>This is a simple paragraph.</p>
```

The `<p>` tag supports all **global attributes**, since it doesn't have any special attributes of its own.

Attribute	Description	Example
<code>id</code>	Assigns a unique ID to the paragraph	<code>&lt;p id="intro"&gt;Welcome!&lt;/p&gt;</code>
<code>class</code>	Defines one or more class names (for CSS/JS)	<code>&lt;p class="info-text"&gt;Some text&lt;/p&gt;</code>
<code>style</code>	Adds inline CSS styling	<code>&lt;p style="color: blue; font-size: 18px;"&gt;Styled paragraph&lt;/p&gt;</code>
<code>title</code>	Adds a tooltip that appears when hovered	<code>&lt;p title="Hover text"&gt;Hover over me!&lt;/p&gt;</code>
<code>lang</code>	Specifies the language of the paragraph	<code>&lt;p lang="en"&gt;Hello World!&lt;/p&gt;</code>
<code>dir</code>	Sets text direction (ltr = left-to-right, rtl = right-to-left)	<code>&lt;p dir="rtl"&gt;مرحبا&lt;/p&gt;</code>
<code>contenteditable</code>	Makes the paragraph editable	<code>&lt;p contenteditable="true"&gt;Edit me&lt;/p&gt;</code>
<code>hidden</code>	Hides the paragraph from display	<code>&lt;p hidden&gt;This is hidden&lt;/p&gt;</code>
<code>draggable</code>	Makes the element draggable	<code>&lt;p draggable="true"&gt;Drag this text&lt;/p&gt;</code>

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## HTML LISTS

A **list in HTML** is a structured collection of related items grouped together to present information in an organized and readable format.

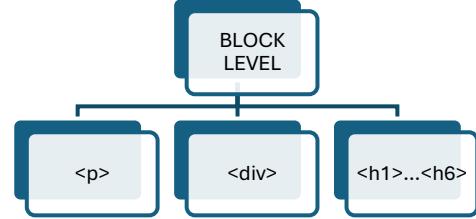
HTML provides three types of lists:

**Ordered lists (`<ol>`)**, which display items in a specific sequence;

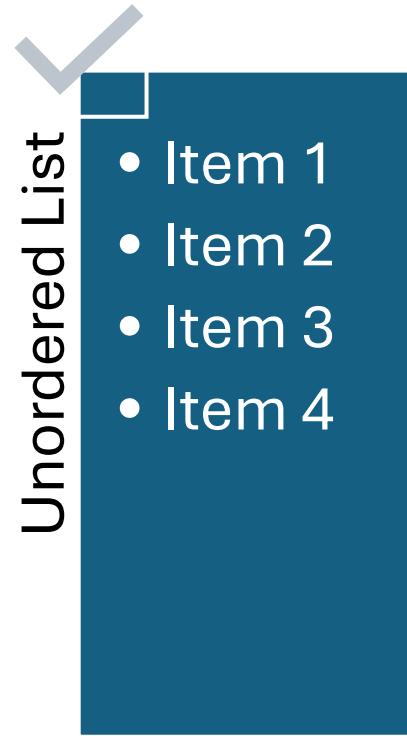
**Unordered lists (`<ul>`)**, which display items with bullet points;

**Description lists (`<dl>`)**, which pair terms with their corresponding descriptions.

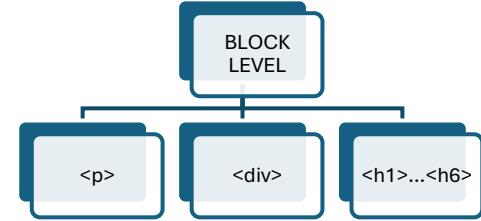
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## HTML LISTS



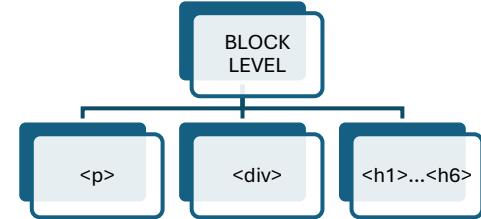
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## 1. Unordered List:

An unordered list, signified by `<UL>` and `</UL>`, is used for lists of items in which the **ordering is not specific**. This might be useful in a list of features and benefits for a product. Unordered lists can be nested. Each level of nesting indents the list further, and the bullet changes accordingly.

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## 1. Unordered List:

List items are defined by using the list item element, `<LI>`, which doesn't require an end tag. List items are usually indented by the browser.

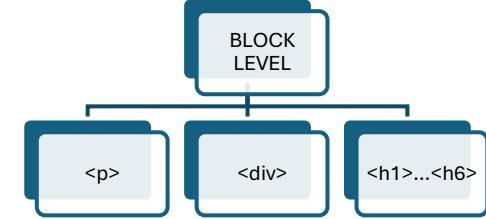
Attribute	Description	Example
<code>type</code>	Defines bullet style (disc, circle, square)	<code>&lt;ul type="square"&gt;</code>

CODE >>>>>>

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## THE CODE

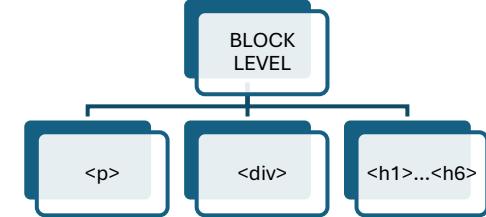
```
<html lang="eu">
  <head>
    <title>Demo</title>
  </head>
  <body>
    <ul>
      <li>Burger
      <li>Pizza
      <li>Roll
      <li>Dosa
      <li>Pav-Bhaji
    </ul>
  </body>
</html>
```



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## THE CODE : Nested Unordered List

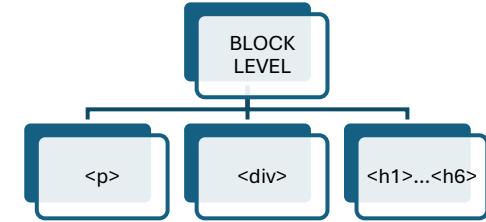
```
<ul>
    <li>Cold-Drinks
        <ul>
            <li>Fanta
            <li>Sprite
            <li>Mountain Dew
        </ul>
    <li>Dosa
    <li>Pav-Bhaji
</ul>
```



## OUTPUT

- Cold-Drinks
  - Fanta
  - Sprite
  - Mountain Dew
- Dosa
- Pav-Bhaji

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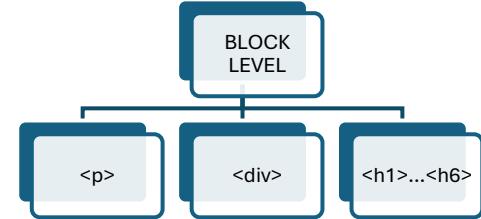


## 2. Ordered List:

An ordered list, as enclosed by `<OL>` and `</OL>`, defines a list in which order matters. Ordering is typically rendered by a numbering scheme, using Arabic numbers, letters, or Roman numerals.

Ordered lists are suitable for creating simple outlines or step-by-step instructions, because the list items are numbered automatically by the browser when we use `<OL>` `</OL>` tags.

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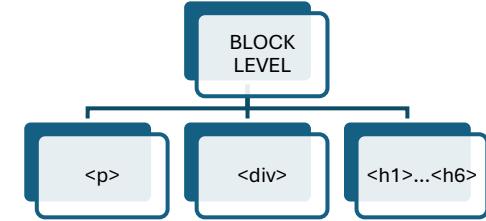
## THE CODE

```
<ol>
  <li>Wakeup
  <li>Brush your teeth
  <li>Have Breakfast
  <li>Go to Department
</ol>
```

## OUTPUT

1. Wakeup
2. Brush your teeth
3. Have Breakfast
4. Go to Department

# BLOCK LEVEL ELEMENTS

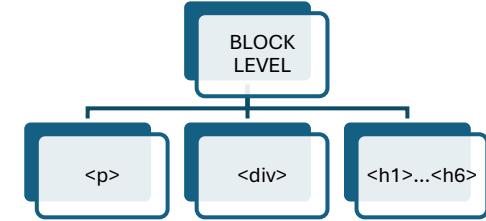


## 2. Ordered List:

### Attributes

Attribute	Description	Example
type	Changes numbering style (1, A, a, I, i)	<ol type="A">
start	Specifies starting number	<ol start="5">
reversed	Reverses the order	<ol reversed>

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## 3. Description List:

A description list in HTML is a semantic structure used to represent a list of terms and their corresponding descriptions, definitions, or values.

In HTML, a description list is defined by the `<dl>` element, which contains one or more pairs of:

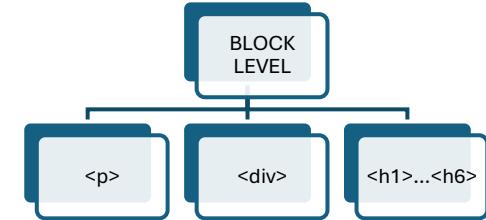
**`<dt>` (description term)** — represents a term or name being defined or described.

**`<dd>` (description definition)** — provides the description, definition, or value associated with the preceding term.

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## THE CODE

```
<dl>
  <dt>HTML</dt>
    <dd>HyperText Markup Language</dd>
  <dt>CSS</dt>
    <dd>Cascading Style Sheets</dd>
</dl>
```



## OUTPUT

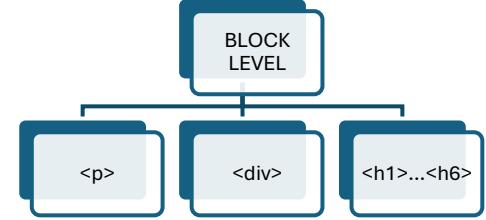
HTML

HyperText Markup Language

CSS

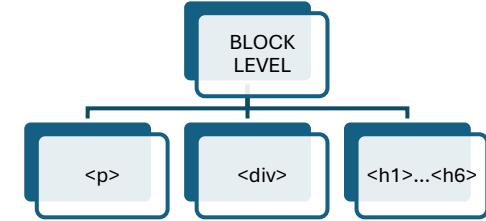
Cascading Style Sheets

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## TABLE Element

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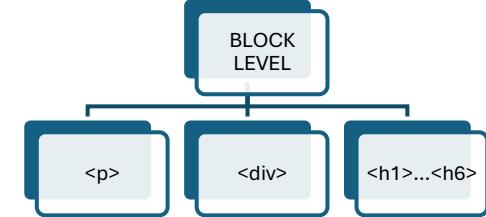


## HTML <TABLE>

A table represents information in a tabular way, like a spreadsheet: distributed across a grid of rows and columns.

In its simplest form, a table places information inside the cells formed by dividing a rectangle into rows and columns. Most cells contain data. Some cells, usually on the table's top or side, contain headings.

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## TABLE Structure:

Row 1 →

Row 2 →

Row 3 →

Row 4 →

Html Table

Item	Price
Apple	\$2
Banana	\$1
Total	\$3

Caption

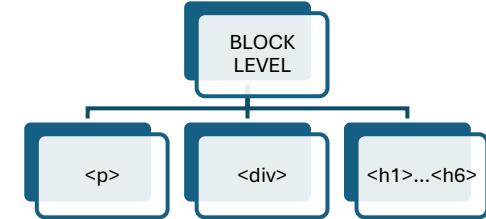
Table Header

Table Body

Table Footer

```
graph LR; Table[Html Table] --> TH[Table Header]; Table --> C[Caption]; TH --- Body[Table Body]; Body --- Footer[Table Footer]
```

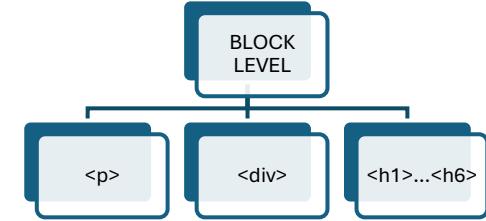
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## Main Table elements

Tag	Name	Description
<table>	Table	Defines the start and end of the table
<tr>	Table Row	Defines a row of cells
<th>	Table Header	Defines a <b>header cell</b> (bold and centered by default)
<td>	Table Data	Defines a <b>standard data cell</b>
<caption>	Table Caption	Adds a title or description for the table
<thead>	Table Head	Groups header content
<tbody>	Table Body	Groups main data rows
<tfoot>	Table Footer	Groups footer rows (like totals)

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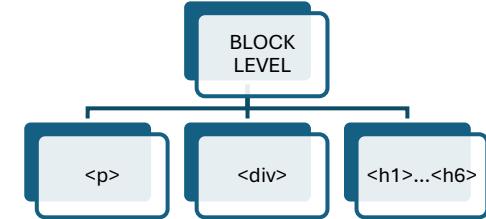
## Creating a HTML Table

```
<table>
  <tr>
    <td>Cell 1</td>
    <td>Cell 2</td>
    <td>Cell 3</td>
  </tr>
</table>
```

**Output :** Single row with 3 cells

Cell 1 Cell 2 Cell 3

# BLOCK LEVEL ELEMENTS



## Creating a HTML Table

```
<table>
  <tr>
    <td>Cell 1</td>
    <td>Cell 2</td>
  </tr>
  <tr>
    <td>Cell 3</td>
    <td>Cell 4</td>
  </tr>
</table>
```

**Output :** Two rows with 2 cells in each row

Cell 1 Cell 2

Cell 3 Cell 4

```
<table>
  <thead>
    <tr>
      <th>Name</th>
      <th>Class</th>
    </tr>
  </thead>
  <tbody>
    <tr>
      <td>Disha</td>
      <td>B.Sc.</td>
    </tr>
    <tr>
      <td>Amit</td>
      <td>M.Sc.</td>
    </tr>
  </tbody>
</table>
```

Name	Class
Disha	B.Sc.
Amit	M.Sc.

```
<table border="1">
  <thead>
    <tr>
      <th>Name</th>
      <th>Class</th>
    </tr>
  </thead>
  <tbody>
    <tr>
      <td>Disha</td>
      <td>B.Sc.</td>
    </tr>
    <tr>
      <td>Amit</td>
      <td>M.Sc.</td>
    </tr>
  </tbody>
</table>
```



Name	Class
Disha	B.Sc.
Amit	M.Sc.

```
<table border="1">
  <caption>Student Record</caption>
  <thead>
    <tr>
      <th>Name</th>
      <th>Class</th>
      <th>Age</th>
    </tr>
  </thead>
  <tbody>
    <tr>
      <td>Disha</td>
      <td>B.Sc.</td>
      <td>21</td>
    </tr>
  </tbody>
  <tfoot>
    <tr><td>Footer</td></tr>
  </tfoot>
</table>
```

Student Record



Name	Class	Age
Disha	B.Sc.	21
Footer		

```
<table border="1">
  <caption>Student Record</caption>
  <thead>
    <tr>
      <th>Name</th>
      <th>Class</th>
      <th>Age</th>
    </tr>
  </thead>
  <tbody>
    <tr>
      <td>Disha</td>
      <td>B.Sc.</td>
      <td>21</td>
    </tr>
  </tbody>
  <tfoot>
    <tr><td>Footer</td></tr>
  </tfoot>
</table>
```

Student Record



Name	Class	Age
Disha	B.Sc.	21
Footer		

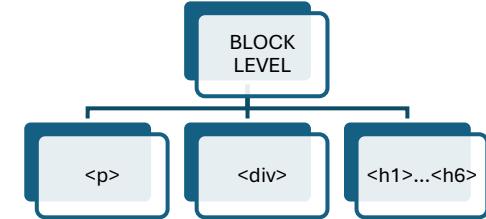
```
<table border="1">
  <tbody>
    <tr>
      <td>Disha</td>
      <td>B.Sc.</td>
      <td>21</td>
    </tr>
  </tbody>
  <tfoot>
    <tr><td>Footer</td></tr>
  </tfoot>
  <thead>
    <tr>
      <th>Name</th>
      <th>Class</th>
      <th>Age</th>
    </tr>
  </thead>
  <caption>Student Record</caption>
</table>
```

Student Record



Name	Class	Age
Disha	B.Sc.	21
Footer		

# BLOCK LEVEL ELEMENTS



## Attributes of the <th> and <td> Tags (Table Cells)

Attribute	Description	Example
colspan	Number of columns the cell should span	<td colspan="2">
rowspan	Number of rows the cell should span	<td rowspan="3">
	Horizontal text alignment (left, center, right)	<td align="center">
valign	Vertical alignment (top, middle, bottom)	<td valign="top">
bgcolor	Background color for a single cell (deprecated)	<td bgcolor="yellow">
width	Width of the cell	<td width="150">
height	Height of the cell	<td height="40">

```
<table border="1">
  <caption>Student Record</caption>
  <thead>
    <tr>
      <th>Name</th>
      <th>Class</th>
      <th>Age</th>
    </tr>
  </thead>
  <tbody>
    <tr>
      <td>Disha</td>
      <td>B.Sc.</td>
      <td>21</td>
    </tr>
  </tbody>
  <tfoot>
    <tr><td colspan="2">Footer</td></tr>
  </tfoot>
</table>
```

Student Record



Name	Class	Age
Disha	B.Sc.	21
Footer		

```
<table border="1">
  <caption>Student Record</caption>
  <thead>
    <tr>
      <th>Name</th>
      <th>Age</th>
      <th>Class</th>
    </tr>
  </thead>
  <tbody>
    <tr>
      <td>Disha</td>
      <td>24</td>
      <td rowspan="2">B.Sc.</td>
    </tr>
    <tr>
      <td>Ajay</td>
      <td>22</td>
    </tr>
  </tbody>
  <tfoot>
    <tr><td colspan="2">Footer</td></tr>
  </tfoot>
</table>
```

Student Record



Name	Age	Class
Disha	24	
Ajay	22	
Footer		

# YOUR COMPANY NAME

S. No.	Items	Qty	Price	Amount
			Total:	
Total amount in words:				

Try designing →

# UNIT II : Cascading Stylesheet

Cascading Style Sheets (CSS) is a style sheet language used to describe the presentation and styling of a document written in a markup language, such as HTML (HyperText Markup Language) or XML (Extensible Markup Language).

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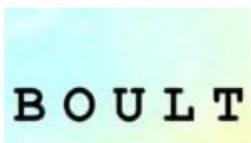
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Starting ₹249 | boAt



Starting ₹349 | bouLT



Starting ₹649 | noise



Starting ₹149 | Zebtronics

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With CSS

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Without CSS

# UNIT II : Cascading Stylesheet

CSS *rules* are defined as a property name followed by a colon and then a property value. All property and value pairs must be separated by semi-colon (;).

property-name1 : value1; ... property-nameN : valueN;

# UNIT II : Cascading Stylesheet

Note:

it is much safer to assume that

CSS is case sensitive.

# UNIT II : Cascading Stylesheet

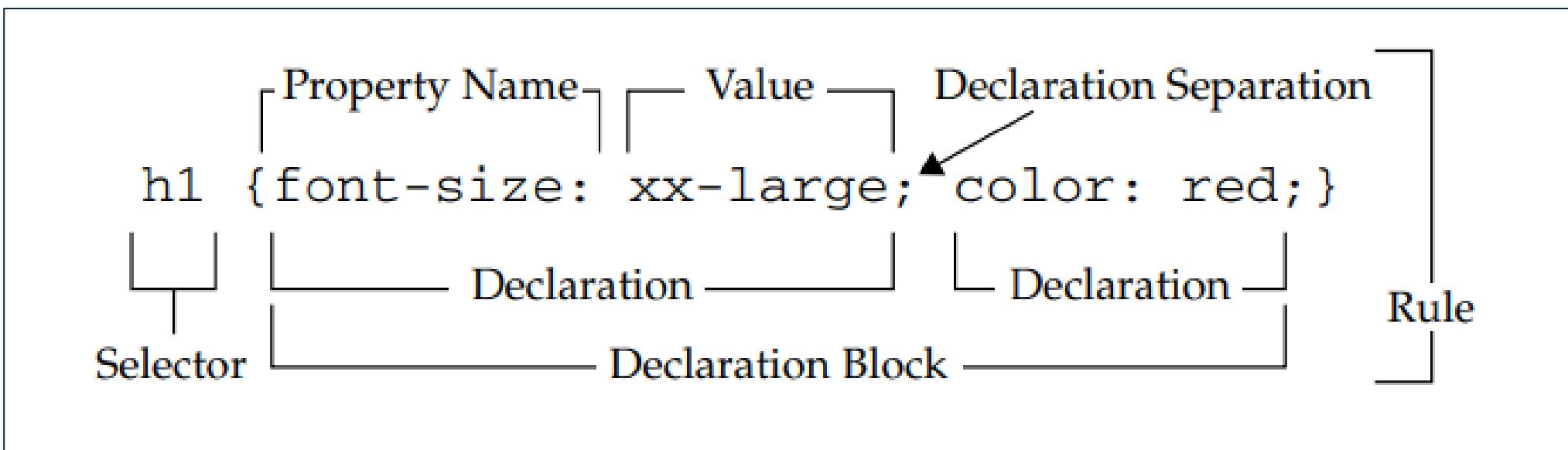
A CSS **selector** is a structured pattern used to select elements in a document for the purpose of associating them with style declarations. Its use is to determine which elements a given CSS rule applies to.

**Example:**

```
selector {property1 : value1; ... propertyN : valueN; }
```

# UNIT II : Cascading Stylesheet

An example rule conforming to correct CSS syntax broken out into its individual components is shown here:



# UNIT II : Cascading Stylesheet

CSS rules can be applied to HTML elements in **three standard ways.**

1. Inline CSS (Using *style* attribute)
2. Internal CSS (Using `<style>` element inside `<head>` element)
3. External CSS (Separate CSS stylesheet file)

# UNIT II : Cascading Stylesheet

## 1. Inline (Using *style* attribute)

CSS rules can be placed directly within most HTML tags by setting the core attribute **style** to the rule. For example, to set the color and alignment of an h1 heading, we might use

```
<h1 style="color: red; text-align: center;">Big Red CSS Text!</h1>
```

# UNIT II : Cascading Stylesheet

## 2. Internal CSS (Using *<style>* element inside *<head>*)

Internal CSS is a method of adding styles within the *<style>* tag in the *<head>* section of a single HTML document. It is used when you want to apply styling to only one specific page without affecting others.

it is best suited for small or single-page projects because it cannot be reused across multiple pages and can make the file longer if many styles are added.

# UNIT II : Cascading Stylesheet

```
<html lang=eu>
<head>
  ~~~~~
  <style>
    h2 { color: blue; }
    p { font-size: 16px; }
  </style>
</head>

<body>
  <h2>Hello!</h2>
  <p>This is styled using internal CSS.</p>
</body>
</html>
```

Code Example:  
Internal CSS

# UNIT II : Cascading Stylesheet

## 3. External CSS (Separate CSS file)

External CSS is a method of styling where all CSS rules are written in a [separate file](#) with a `.css` extension. This file is then linked to an HTML document using the `<link>` tag inside the `<head>` section. It is used when you want to apply the [same style across multiple webpages](#), making your design consistent and easier to maintain. The main benefits of external CSS are [better organization](#), cleaner HTML files, and the ability to reuse one stylesheet for an entire website.

# UNIT II : Cascading Stylesheet

webpage.html

```
<html>
  <head>
    <link rel="stylesheet" href="style.css">
  </head>

  <body>
    <h2>Welcome</h2>
    <p>This text is styled using external CSS.</p>
  </body>
</html>
```

style.css

```
h2 { color: green; }
p { font-size: 16px; }
```

# UNIT II : Cascading Stylesheet

## Common CSS Properties and Values

### Text Properties

Property	Common Values
color	red, blue, #333, rgb(0,0,0)
font-size	16px, 1.2rem, 2em
font-family	Arial, "Times New Roman", sans-serif
font-weight	normal, bold, 400, 700
text-align	left, center, right, justify
text-decoration	none, underline, line-through
text-transform	uppercase, lowercase, capitalize

# UNIT II : Cascading Stylesheet

## Common CSS Properties and Values

### Background Properties

Property	Common Values
background-color	red, #f0f0f0, rgb(200,200,200)
background-image	url("image.jpg")
background-size	cover, contain, auto
background-repeat	no-repeat, repeat, repeat-x

# UNIT II : Cascading Stylesheet

## Common CSS Properties and Values

### Box Model Properties

Property	Common Values
width, height	100px, 50%, auto
padding	10px, 1rem
margin	20px, auto, 0
border	1px solid black
border-radius	5px, 50%

```
<p style="color:blue; font-size:50px;">
```

THANK YOU

```
</p>
```