

CSS

Infomax
Computer Academy

What is CSS?

- **CSS** stands for **Cascading Style Sheets**.
- It is the **language used to style and design web pages** — controlling how HTML elements look on the screen, paper, or other media.

INFOMAX
COMPUTER ACADEMY

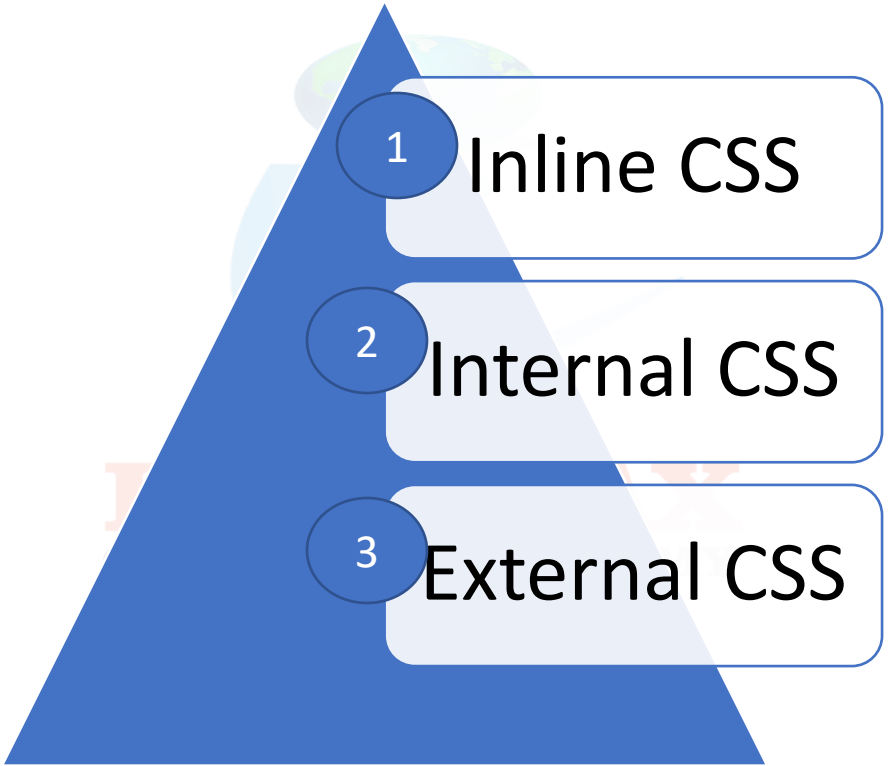
Why CSS?

- Allows for much **richer document appearances** than HTML.
- **Reduce workload** by centralizing commands for visual appearance instead of scattered throughout the HTML doc.
  - Use **same style on multiple pages**.
  - Reduce page **download size**.

INFOMAX
COMPUTER ACADEMY



Types of CSS



INFOMAX
COMPUTER ACADEMY

Inline CSS

Inline CSS contains the CSS property in the body section attached with element is known as inline CSS. This kind of style is specified within an HTML tag using the style attribute.

Syntax:

<tag_name style="Property_Name:Value; ">

Example:

```
<p style="font-size:18px;color:red">
        Paragraph Text
</p>
```

INFOMAX COMPUTER ACADEMY

Internal CSS

This can be used when a single HTML document must be styled uniquely. The CSS rule set should be within the HTML file in the head section i.e the CSS is embedded within the HTML file.

Syntax:

```
<head>
  <style type="text/css">
  Selector {
  Property : value; Property : value;
  }
  </style>
</head>
```

INFOMAX
COMPUTER ACADEMY

External CSS

External CSS contains separate CSS file which contains only style property with the help of tag attributes (For example class, id, heading, … etc). CSS property written in a separate file with .css extension and should be linked to the HTML document using link tag.

Syntax: Link CSS File into HTML

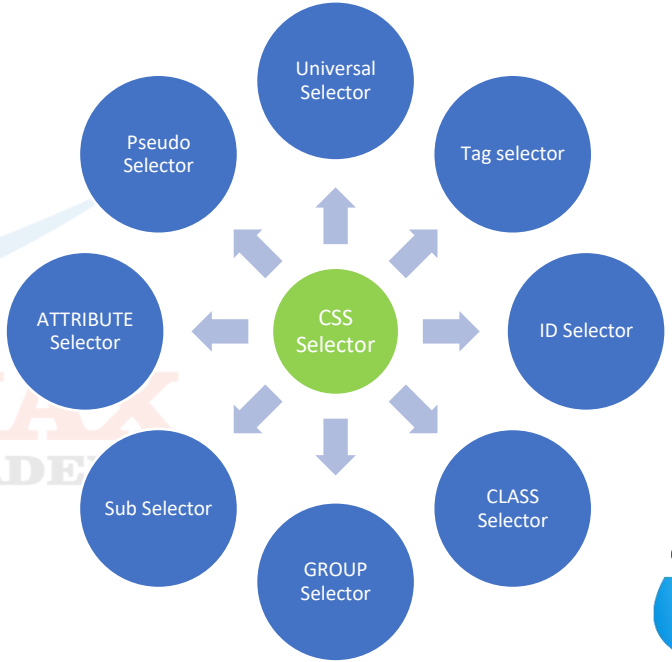
```
<head>
    <link type=”text/css” rel=”stylesheet”
  href=”css_filename.css”>
</head>
```

INFOMAX
COMPUTER ACADEMY

CSS Selectors

CSS selectors are used to "find" (or select) the HTML elements you want to style.

- Universal Selector
- Tag selector
- ID Selector
- CLASS Selector
- GROUP Selector
- Sub Selector
- ATTRIBUTE Selector
- Pseudo Selector



INFOMAX
COMPUTER ACADEMY

Universal Selector

- The universal selector is used as a wildcard character. It selects all the elements on the pages.

- Example:
- Here this CSS rule will affect every HTML element on the page.

```
<style>
* {
        color: red;
        text-
align:center;
}
</style>
```

INFOMAX
COMPUTER ACADEMY

Tag (Element) Selector

- The tag selector select the html elements based on the tag name.

- Example:
- Here this CSS rule will affect every <p> element on the page.

```
P
{
        text-align:center;
        color:red;
}
```

INFOMAX
COMPUTER ACADEMY

ID Selector

- The id selector selects the id attribute of an HTML element to select a specific element. An id is always unique within the page so it is chosen to select a single, unique element.
- Example: Here this CSS rule will be applied to the HTML element with id=“first”

```
<style>
#para1 {
    text-align: center;
    color: blue;
}
</style>
<p id="para1">Hello INFOMAX</p>
```

INFOMAX
COMPUTER ACADEMY

Class selector

- The class selector selects HTML elements with a specific class attribute. It is used with a period character . (full stop symbol) followed by the class name.
- Example: Here this CSS rule will be applied to the HTML element with class="center"

```
<style>
.center {
    text-align: center;
    color: blue;
}
</style>
<h1 class="center">Heading One</h1>
<p class="center">Ram is a good boy</p>
```

INFOMAX
COMPUTER ACADEMY

Group Selector

- The grouping selector is used to select all the elements with the same style definitions.
- Grouping selector is used to minimize the code. Commas are used to separate each selector in grouping.
- Example:
- Here this CSS rule will be applied to the all h1,h2,and p tags.

```
<style>
h1, h2, p {
    text-align: center;
    color: blue;
}
</style>
```

```
<h1>Heading One</h1>
<h2>Heading Two</h2>
<p>This is a paragraph.</p>
```

INFOMAX
COMPUTER ACADEMY

Sub Selector

- A CSS selector can contain more than one simple selector. Between the simple selectors, we can include a combinator.
- There are 4 different combinators in css:

Space	Descendant Selector
>	Child Selector
+	Adjacent Sibling Selector
~	General Sibling Selector

INFOMAX
COMPUTER ACADEMY

Descendant Selector

- The descendant selector matches all elements that are descendants of a specified element.
- The following example selects all <a> elements inside <p> elements:

```
p a{
        color:red;
        font-size:20px;
}
```

INFOMAX
COMPUTER ACADEMY

Child Selector (>)

- The child selector selects all elements that are the children of a specified element.
- Example:
- The following example selects all <a> elements that are children of a <p> element:

```
p > a {
  background-color: yellow;
}
```

INFOMAX
COMPUTER ACADEMY

Adjacent Sibling Selector (+)

- The adjacent sibling selector is used to select an element that is directly after another specific element.
- Sibling elements must have the same parent element, and "adjacent" means "immediately following".
- Example:
- The following example selects the first <p> element that are placed immediately after p1 id elements:

```
#p1+ p {
  background-color: yellow;
}
```

INFOMAX COMPUTER ACADEMY

General Sibling Selector (~)

- The general sibling selector selects all elements that are next siblings of a specified element.
- Example: The following example selects all <p> elements that are next siblings of element which id is p1:

```
#p1 ~ p {
  background-color: yellow;
}
```

INFOMAX
COMPUTER ACADEMY

Attribute Selector

- The [attribute] selector is used to select elements with a specified attribute.
- **Example** : The following example selects all paragraph which are center aligned.

```
p[align=“center”]
{
    color:red;
    font-size:20px;
}
```

INFOMAX
COMPUTER ACADEMY

Operators in Attribute Selector

Selector	Example	Example description
[attribute]	a[target]	Selects all elements with a target attribute
[attribute=value]	a[target="_blank"]	Selects all elements with target="_blank"
[attribute~=value]	img[title~="flower"]	Selects all elements with a title attribute that contains a space-separated list of words, one of which is "flower"
[attribute|=value]	[lang|="en"]	Selects all elements with a lang attribute value starting with "en“ (separated with -)
[attribute^=value]	a[href^="https"]	Selects all <a> elements with a href attribute value starting with "https"
[attribute$=value]	a[href$=".pdf"]	Selects all <a> elements with a href attribute value ending with ".pdf"
[attribute*=value]	a[href*=“infomax"]	Selects all <a> elements with a href attribute value containing the substring “infomax"

Pseudo Selector

- A pseudo-class is used to define a special state of an element.
- For example, it can be used to:
- Style an element when a user mouses over it
- Style visited and unvisited links differently
- Style an element when it gets focus
- Example:
- Anchor Pseudo-classes:
- a:link a:visited a:hover a:active
- Others:
- :hover :active :focus

INFOMAX COMPUTER ACADEMY

CSS Properties

- Background Properties
- Border Properties
- Text Property
- Font Properties
- Block Properties
- Box Properties
- Positioning Properties
- List Property
- Table Property

INFOMAX
COMPUTER ACADEMY

Background Properties :

Property	Possible Value
background	Red, #FFFF00, rgb(255,255,0), rgba(255,255,0,.5), url(image path)
background-color	Red, #FFFF00, rgb(255,255,0), rgba(255,255,0,.5),
background-image	url('path')
background-attachment	Fixed, Scroll
background-position	top left, top center, top right, center left, center center, center right, bottom left , bottom center, bottom right
background-repeat	Repeat, repeat-x, repeat-y, no-repeat
Background-size	% or px
filter	Blur(4px) default value of blur is 0

Border Properties

Property	Possible Values
Border	size style color
Border-top	size style color
Border-left	size style color
Border-right	size style color
Border-bottom	size style color
Border-style	solid, dotted, dashed, inset, outset, double
Border-width	Px , thin ,medium, thick
Border-color	Color name
Border-radius	Px or %

Text properties

Property	Possible Values
color:	Sets text color
text-align	Aligns text (left, right, center, justify)
text-decoration	None, underline, overline, line-through
text-decoration-color	Sets decoration color
text-decoration-style	Style of line (solid, dashed, wavy)
text-transform	Uppercase, lowercase,Captalize
text-shadow	Left (px) top (px) px fade (px) Color
line-height	Space between lines of text (number)
Text-indent	Indents the first line of a paragraph (px)
letter-spacing	Space between characters (px)
word-spacing	Space between words (px)

Font Property

Property	Possible value
font-family	Any Valid font Name
font-size	xx-small, x-small, small, medium, large, x-large, xx-large, smaller, larger
font-style	Normal,italic
font-weight	Normal, bold, bolder, lighter, 100 -900
font-variant	Normal, small-caps

COMPUTER ACADEMY

INFOMAX
COMPUTER ACADEMY

Position and Dimension Properties:

Property Name	Possible Values
width, min-width, max-width	Px or %
height, min-height, max-height	
margin, margin-top, margin-bottom, margin-left, margin-right	PX or %
padding, padding-left, padding-right, padding-top, padding-bottom	PX or %
display	None, Block, Inline,flex
float	Left, right
clear	Left, Right, Clear
Position	Relative, Absolute, Fixed
top, left	Px

Position and Dimension Properties:

Property Name	Possible Values
overflow	Hidden, scroll, auto
opacity	0 to 1
z-index	Any Number

INFOMAX
COMPUTER ACADEMY

List Properties

Property Name	Possible Values
list-style-type	Disc, circle, square, decimal, decimal-leading-zero, lower-roman, upper-roman lower-alpha, upper-alpha, lower-Greek, lower-latin, upper-latin, Hebrew, Armenian, Georgian,cjk-ideographic, hiragana, katakana, hiragana-iroha, katakana-iroha
list-style-position	Inside, outside
list-style-image	URL values.

INFOMAX
COMPUTER ACADEMY

Table Property

border-collapse	Collapse, separate
border-spacing	Lengths for the horizontal and vertical spacing, separated by a space.
caption-side	Top, bottom, left, right
empty-cells	Show, hide

INFOMAX
COMPUTER ACADEMY

INFOMAX
COMPUTER ACADEMY

CSS Transitions

- CSS transitions allows you to change property values smoothly, over a given duration.

Property	Description
transition	A shorthand property for setting the four transition properties into a single property. Ex: width 2s
transition-delay	Specifies a delay (in seconds) for the transition effect
transition-duration	Specifies how many seconds or milliseconds a transition effect takes to complete. Example 2s, 4s
transition-property	Specifies the name of the CSS property the transition effect is for. Example width, height

INFOMAX
COMPUTER ACADEMY

CSS Animation Properties

- CSS allows animation of HTML elements without using JavaScript!
- The @keyframes rule in CSS is used to define an animation's steps, specifying how an element's style changes at different points during the animation.

```
@keyframes animationName {
  0% { /* Initial style */ }
  50% { /* Midway style */ }
  100% { /* End style */ }
}
```

- The animation shorthand property in CSS applies a keyframe animation to an element.
- animation: animationName duration timing-function delay iteration-count direction fill-mode;

INFOMAX
COMPUTER ACADEMY

Example : Blinking Text Animation

- Blinking Text

```
@keyframes blink {
  0%, 100% {
    opacity: 1;
  }
  50% {
    opacity: 0;
  }
}
```

```
.blink {
  animation: blink 1s step-start infinite;
}
```

INFOMAX
COMPUTER ACADEMY

INFOMAX
COMPUTER ACADEMY

Media CSS

- **Media queries** in CSS allow you to apply styles **only when certain conditions are met**, such as screen size, device type, or orientation. This is crucial for **responsive web design**.
- /* For mobile phones */
- @media (max-width: 600px) {
- body {
- background-color: pink;
- font-size: 14px;
- }
- }

INFOMAX
COMPUTER ACADEMY

Thank You

Address: G. R. Complex Preetam Nagar, Dhoomanganj
Prayagraj Uttar Pradesh 211011

Mobile No.: 9598948810,8874588766,9532878816
Website : www.infomax.org.in

INFOMAX
COMPUTER ACADEMY

