

Assignment

Module 4) CSS and CSS 3

1. What are the benefits of using CSS?

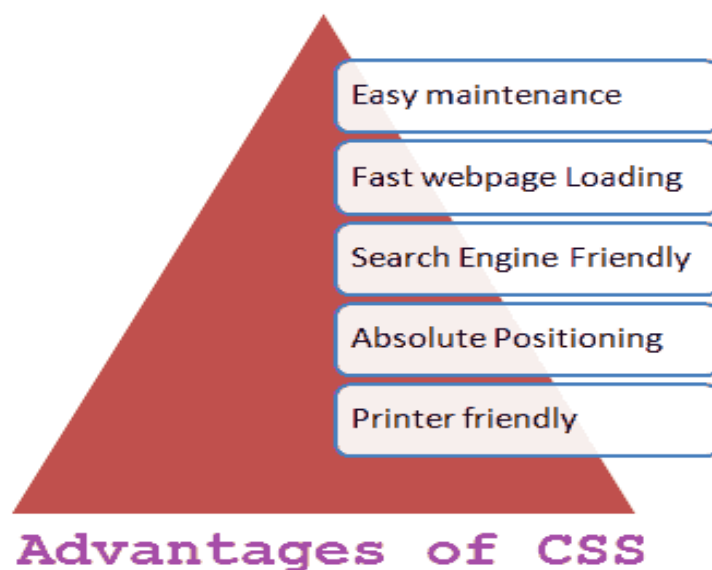
Ans. 1) Faster Page Speed. More code means slower page speed. ...

2) Better User Experience. CSS not only makes web pages easy on the eye, it also allows for user-friendly formatting. ...

3) Quicker Development Time. ...

4) Easy Formatting Changes. ...

5) Compatibility Across Devices.



2. What are the disadvantages of CSS?

Ans. CSS, CSS 1 up to CSS3, result in creating of confusion among web browsers.

With CSS, what works with one browser might not always work with another. The web developers need to test for compatibility, running the program across multiple browsers.

There exists a scarcity of security.

After making the changes we need to confirm the compatibility if they appear. The similar change affects on all the browsers.

The programming language world is complicated for non-developers and beginners. Different levels of CSS i.e. CSS, CSS 2, CSS 3 are often quite confusing.

Browser compatibility (some styles sheet are supported and some are not).

CSS works differently on different browsers. IE and Opera supports CSS as different logic.

There might be cross-browser issues while using CSS.


There are multiple levels which creates confusion for non-developers and beginners.

3. What is the difference between CSS2 and CSS3?

Ans. The biggest difference between CSS2 and CSS3 is that CSS3 has been split into different sections, called modules. Each of these modules is making its way through the W3C in various stages of the recommendation process.

CSS3 vs CSS

Comparison Chart

CSS	CSS3
CSS is the basic version with the basic formatting functionality.	CSS3 is the latest iteration of the CSS language that extends the functionality of CSS2.
It does not support responsive design and cannot handle media queries.	It supports responsive design and can handle media queries quite well.
CSS is relatively slower than CSS3.	CSS3 is the latest evolution which is much faster than its previous iterations.
It does not support 3D transformations and animations.	You can create 3D transformations, transitions, and animations using CSS3.
CSS cannot be split into varied modules.	CSS3 can be split into modules.
It has old and standard colors.	It offers exciting new ways to play with colors.
	

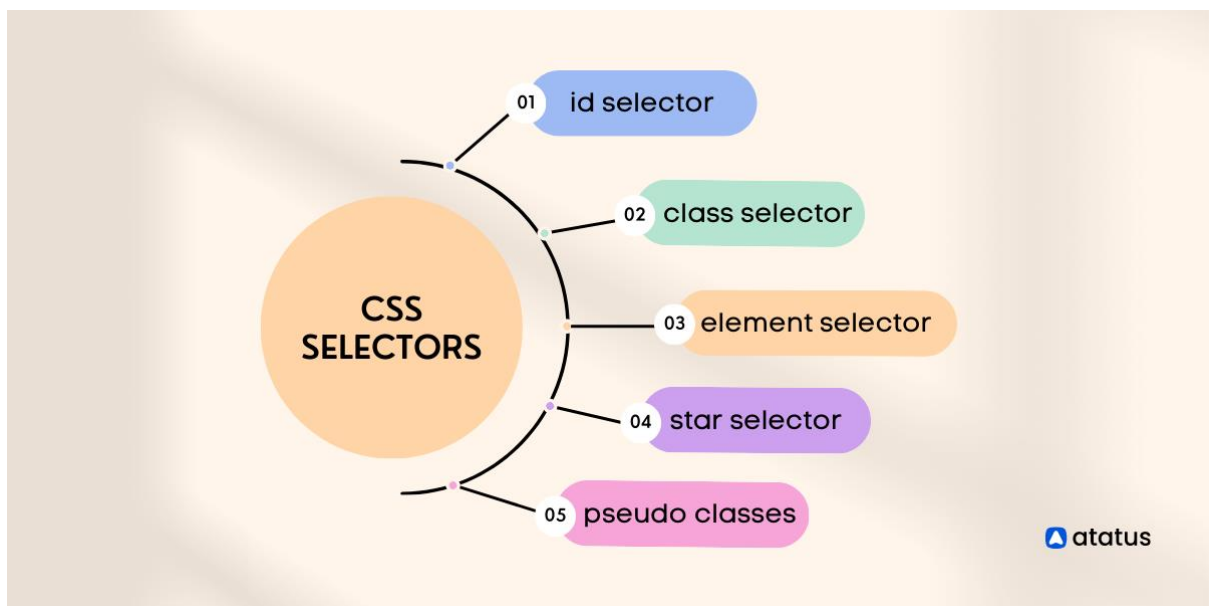
4. Name a few CSS style components

Ans. The components of css style are:

Selector: class name, id name or element name that is target.

Attribute: name of the attribute you want to style for example border, color, background, position etc.

Value of Property: value that will be assigned to attribute.



5. What do you understand by CSS opacity?

Ans. The opacity CSS property sets the opacity of an element. Opacity is the degree to which content behind an element is hidden, and is the opposite of transparency.

CSS

opacity: 0.9;

opacity: 90%;

`/* Global values */`

opacity: inherit;

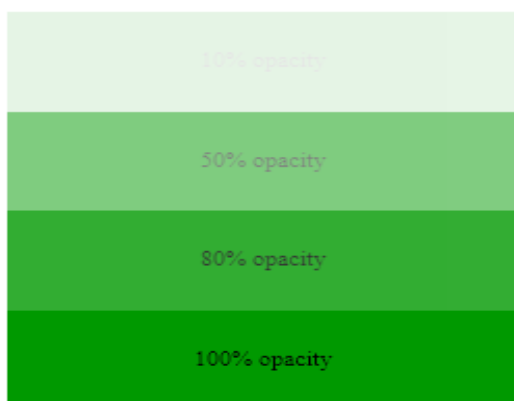
opacity: initial;

opacity: revert;

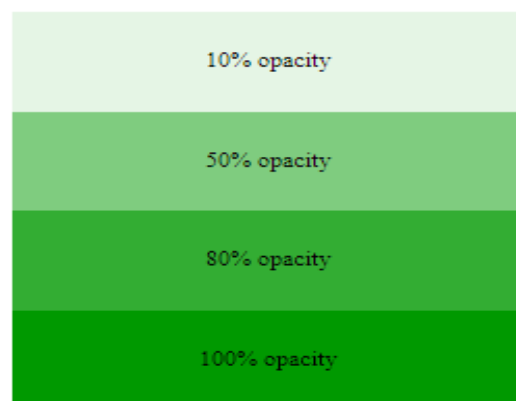
opacity: revert-layer;

opacity: unset;

Transparent Box



RGBA color values



6. How can the background color of an element be changed?

Ans. To add background color in HTML, use the CSS background-color property. Set it to the color name or code you want and place it inside a style attribute. Then add this style attribute to an HTML element, like a table, heading, div, or span tag.

Add Background Color to an HTML Element

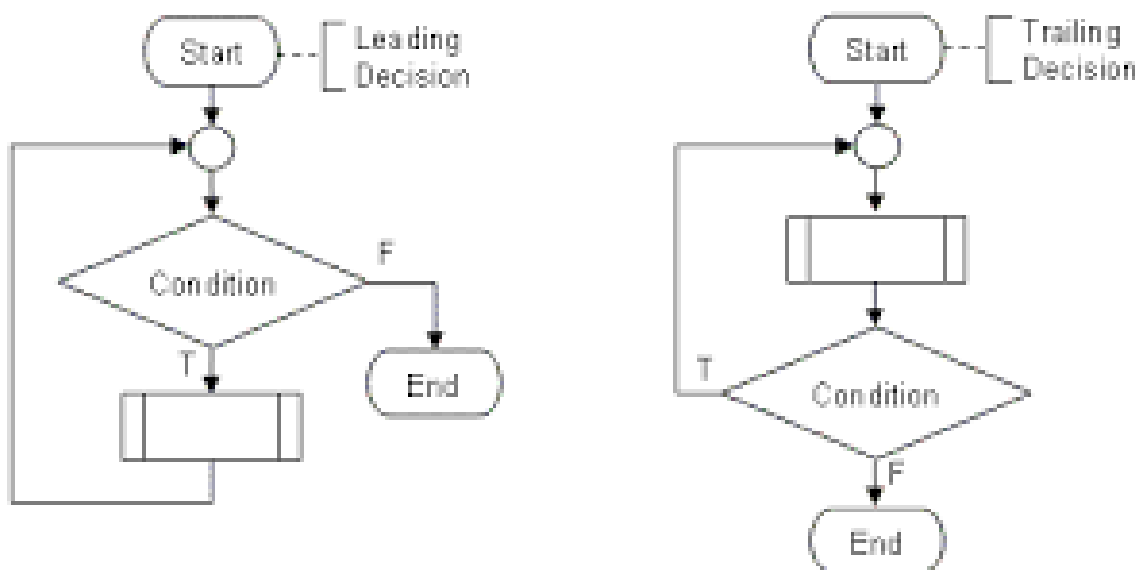
A dark blue background color has been added to the table below.

Name	Job Title	Email address
Anna Fitzgerald	Staff Writer	example@company.com
John Smith	Marketing Manager	example2@company.com
Zendaya Grace	CEO	example2@company.com

7. How can image repetition of the backup be controlled?

Ans. In this article, we will see how an image repetition of the backup is controlled in CSS. This task can be achieved by using the background-repeat property that will help us to control the repetition of the image.

The background-repeat property in CSS is used to repeat the background image both horizontally and vertically. It also decides whether the background image will be repeated or not.

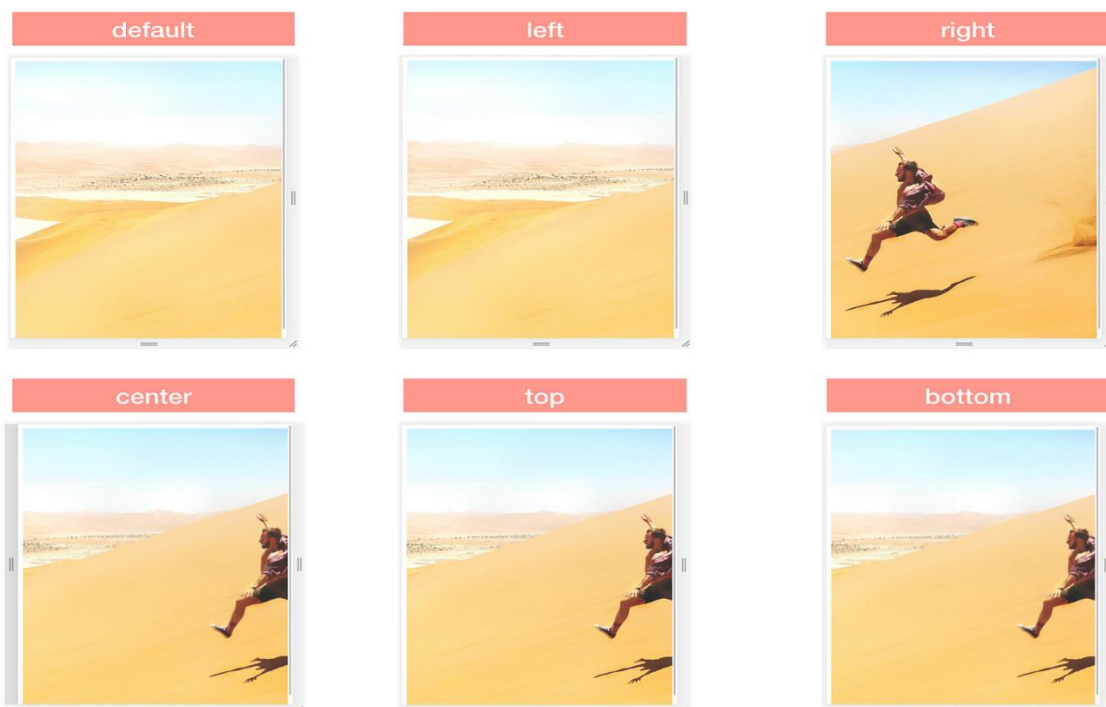


8. What is the use of the background-position property?

Ans. The background-position property sets the starting position of a background image. Tip: By default, a background-image is placed at the top-left corner of an element, and repeated both vertically and horizontally.

Example

```
body {  
    background-image: url('w3css.gif');  
    background-repeat: no-repeat;  
    background-attachment: fixed;  
    background-position: center;  
}
```

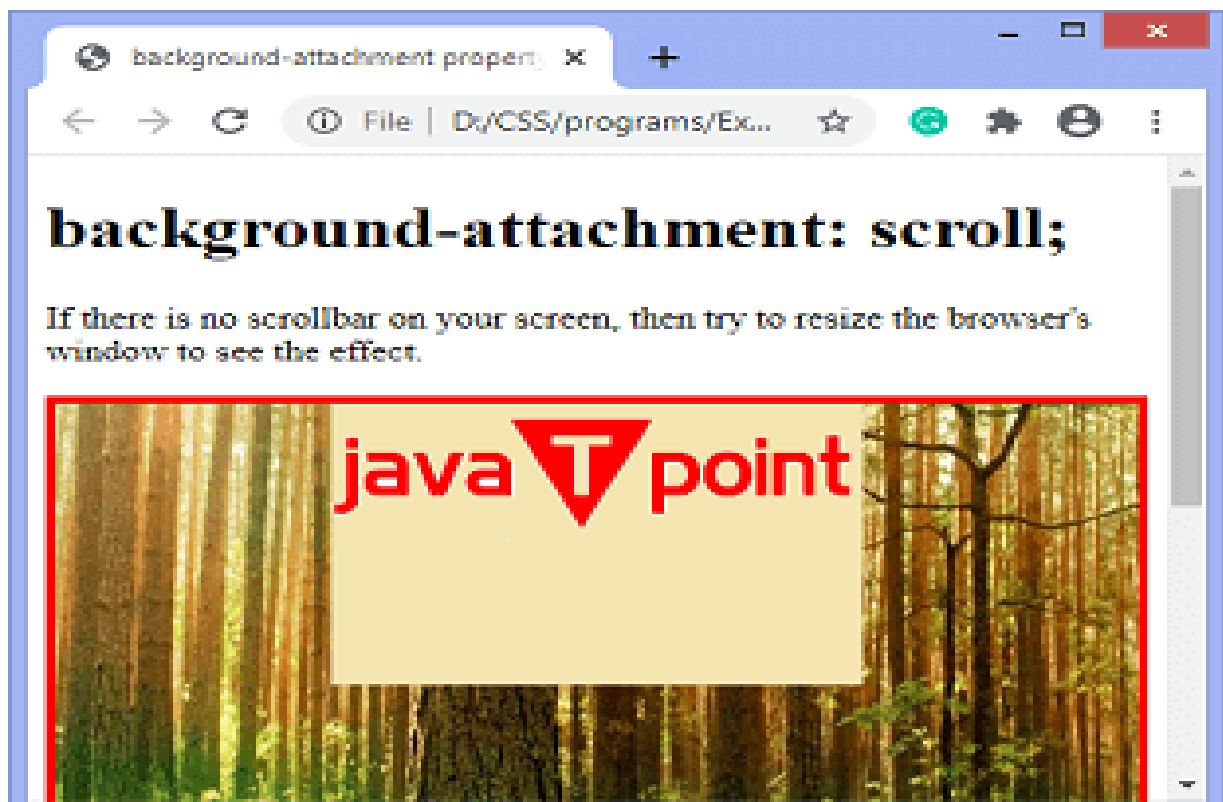


9. Which property controls the image scroll in the background?

Ans. background-attachment property

The background-attachment property sets whether a background image scrolls with the rest of the page, or is fixed.

```
body {  
    background-image: url("img_tree.gif");  
    background-repeat: no-repeat;  
    background-attachment: scroll;  
}
```



10. Why should background and color be used as separate properties?

Ans. There are two reasons behind this:

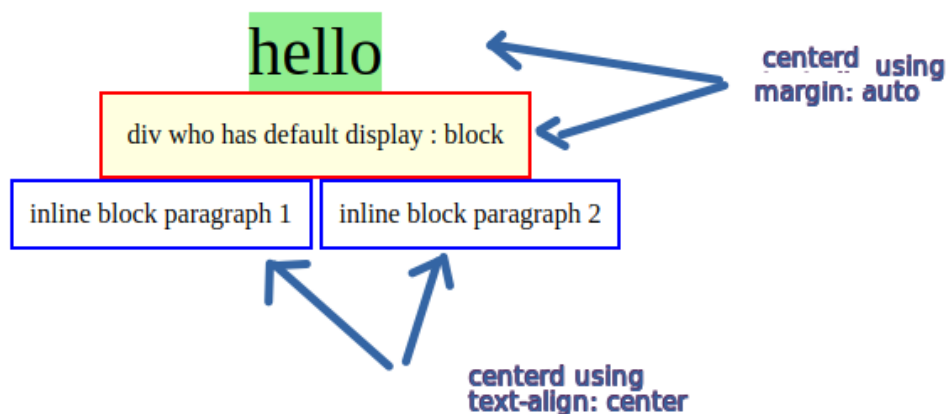
It enhances the legibility of style sheets. The background property is a complex property in CSS, and if it is combined with color, the complexity will further increase.

Color is an inherited property while the background is not. So this can make confusion further.

11. How to center block elements using CSS1?

Ans. To centrally align the block elements, we can simply make use of the <center> tag. All the elements within the <center> tag will be centrally aligned.

Block elements are those that are displayed at the start of a new line. A block element takes up the entire width of the content it is part of. Unlike inline, these elements have a top and bottom margin. Only the body tag is permitted to contain components at the block level. In comparison to inline components, block-level elements produce a larger structure. Examples of block elements are <div>, <article>, <section>, , , <form>, <p>, etc.,



12. How to maintain the CSS specifications?

Ans. The Specification defines how CSS properties should be implemented by browser vendors along with detailed algorithms, code samples and tabular information.

The Specification also include:

The syntax and data types of the language

Detailed explanation on CSS Selectors

How you can assign values to properties

The Cascade (the "C" in CSS)

How inheritance works

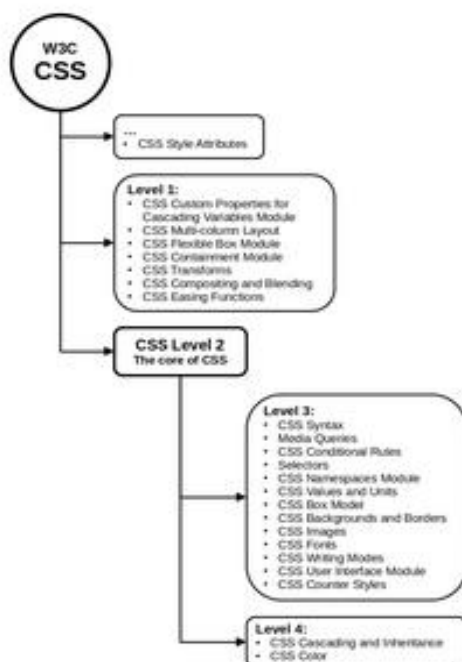
The Box Model e.t.c

Explanation on some of these topic are short and easy to understand while others are explained in great detail.

The Specification also specify how stylesheets can be included in your web document and how to target specific media e.g print or screen.

The CSS Specification prior to CSS3 was a single Specification, CSS3 on the other hand is divided into Modules which are Independent Specifications that can be worked on by different author(s) at different paces, that's why we have Selector Level 3 Specification, CSS Color 4, CSS Backgrounds and so on. Some of these modules are revisions of CSS2.1, and some are newly created, but all fall under the banner of CSS3.

The Specification should be your guide if you need to understand how a specific property or feature works behind the scene and how it works with other CSS properties. And if you are comfortable reading algorithms you won't get bored reading the CSS Specification.



13. What are the ways to integrate CSS as a web page?

Ans. CSS may be added to HTML in three different ways. To style a single HTML element on the page, use Inline CSS in a style attribute. By adding CSS to the head section of our HTML document, we can embed an internal stylesheet. We can also connect to an external stylesheet that separates our CSS from our HTML.

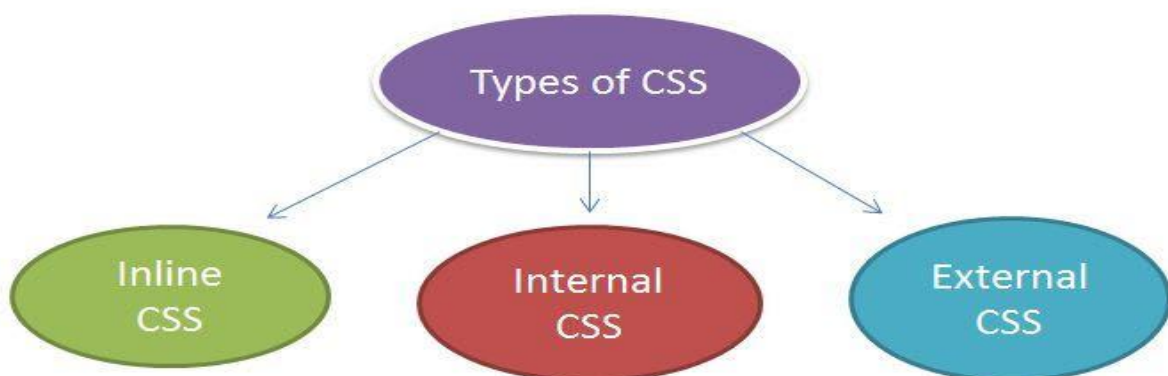
Example

<body>

<p style="color:red; font-size: 20px;">This is our first HTML code.</p>

<p>This is our second HTML code</p>

</body>



14. What is embedded style sheets?

Ans. Embedded Stylesheet: It allows you to define styles for a particular HTML document as a whole in one place. This is done by embedding the `<style></style>` tags containing the CSS properties in the head of your document. Embedded style sheets are particularly useful for HTML documents that have unique style requirements from the rest of the documents in your project. However, if the styles need to be applied across multiple documents, you should link to an external style sheet instead of using individual embedded style sheets. Using embedded stylesheets holds a distinct advantage over inline styles which only allow you to address one HTML element at a time.

Syntax: The CSS syntax for embedded style sheets is exactly the same as other CSS code, apart from the fact that it is now wrapped within the `<style></style>` tags. The `<style>` tag takes the 'type' attribute that defines the type of style sheet being used (ie. text/CSS).

Example 1: Below is an HTML document with the CSS styling for the entire web page enclosed within the `<style></style>` tags. These properties would be

applied to all corresponding elements in the HTML document.

Welcome To GFG

This document is using an embedded stylesheet!

This is a paragraph

This is another paragraph

```
6  <!-- External/linked CSS file -->
7  <link href="styles.css" rel="stylesheet" type="text/css" />
8
9  <!-- Global/embedded style statement -->
10 ▼ <style>
11 ▼   p {
12     font-size: 24pt;
13   }
14 </style>
15 </head>
16
17 ▼ <body>
18   <!-- Local/inline style -->
19   <p style="font-family: Helvetica;">Example of 3 "cascading
    style sheets."</p>
20 </body>
21 </html>
```


15. What are the external style sheets?

Ans. External style sheets

To apply a rule to multiple pages, an external style sheet is used. An external style sheet is a separate CSS file that can be accessed by creating a link within the head section of the webpage. Multiple webpages can use the same link to access the stylesheet.

The link to an external style sheet is placed within the head section of the page.

<head>

<link rel="stylesheet" type="text/css"
href="mystyle.css">

</head>

Example

```
p { color: red; font-size: 24px;}  
h1 { color: blue; font-size: 24em;}
```

1. Open notepad++ or any other Editor or IDE
2. Write CSS Code
3. Save with .css extension for example geekyshows.css

16. What are the advantages and disadvantages of using external style sheets?

Ans. The advantages of External Style Sheets are:

- Using them, the styles of multiple documents can be controlled from one file.
- Classes can be created for use on multiple HTML element types in many documents.
- In complex situations, selector and grouping methods can be used to apply styles.

The disadvantages of External Style Sheets are:

- In order to import style information for each document, an extra download is needed.
- Until the external style sheet is loaded, it may not be possible to render the document.
- For small number of style definitions, it is not viable.

Advantages <ul style="list-style-type: none">• Better website speed• Easier to maintain• Consistent design• Time-saving• Better device compatibility• Flexible positioning of design elements 	 Disadvantages <ul style="list-style-type: none">• Confusion due to many CSS versions• Cross-browser issues• Limited security• Extra work for developers
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17. What is the meaning of the CSS selector?

Ans. CSS selectors

Overview: Building blocks

Next

In CSS, selectors are used to target the HTML elements on our web pages that we want to style. There are a wide variety of CSS selectors available, allowing for fine-grained precision when selecting elements to style. In this article and its sub-articles we'll run through the different types in great detail, seeing how they work.

Prerequisites: Basic computer literacy, basic software installed, basic knowledge of working with files, HTML basics (study Introduction to HTML), and an idea of how CSS works (study CSS first steps.)

Objective: To learn how CSS selectors work in detail.

What is a selector?

A CSS selector is the first part of a CSS Rule. It is a pattern of elements and other terms that tell the browser which HTML elements should be selected to have the CSS property values inside the rule applied to them. The element or elements which are selected by

the selector are referred to as the subject of the selector.

Types of CSS Selectors

CSS Attribute Selector

CSS Id Selector

CSS Element Selector

CSS Class Selector

CSS Universal Selector



18. What are the media types allowed by CSS?

Ans. 1

all

Suitable for all devices.

2

aural

Intended for speech synthesizers.

3

braille

Intended for braille tactile feedback devices.

4

embossed

Intended for paged braille printers.

5

handheld

Intended for handheld devices (typically small screen, monochrome, limited bandwidth).

6

print

Intended for paged, opaque material and for documents viewed on screen in print preview mode. Please consult the section on paged media

7

projection

Intended for projected presentations, for example projectors or print to transparencies. Please consult the section on paged media.

8

screen

Intended primarily for color computer screens.

9

tty

Intended for media using a fixed-pitch character grid, such as teletypes, terminals, or portable devices with limited display capabilities.

10

tv

Intended for television-type devices.

19. What is the rule set?

Ans. Definitions:

A table of instructions used by a controlled interface to determine what data is allowable and how the data is handled between interconnected systems.

Sources:

CNSSI 4009-2015

A collection of rules or signatures that network traffic or system activity is compared against to determine an action to take—such as forwarding or rejecting a packet, creating an alert, or allowing a system event.

Sources:

NIST SP 800-115 under Ruleset

A set of directives that govern the access control functionality of a firewall. The firewall uses these directives to determine how packets should be routed between its interfaces.

Sources:

NIST SP 800-41 Rev. 1 under Ruleset