



Certified CSS Designer Sample Material

V-Skills Certifications

**A Government of India
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V-Skills



1. CSS BASICS

1.1 Introduction

Cascading Style Sheets (CSS) is a language specifically made for illustrating the appearance of various parts of a web page. CSS gives option to control the text color, fonts style, inter-paragraph spacing, columns sizing and layout, background images or colors and many other visual effects. CSS is used to style web pages, developed in HTML or XHTML

The major advantage of CSS is to customize the style of an entire website without changing each page individually.

W3C laid out details for a style sheet language to separate the visual appearance of a web page from its content and in 1994, Cascading HTML Style Sheets was proposed. CHSS became CSS and in December 1996 the CSS level 1 Recommendation was published. Three more CSS specifications have been published by the W3C of which CSS 2 became a recommendation followed by CSS 2.1 and CSS 3 is an upcoming recommendation.

1.2 Why to use CSS

HTML and XHTML is the base for all web pages on internet. CSS prevents repurposing of HTML tags to get certain visual effects.

CSS-driven web design makes writing HTML easier. The HTML-only approach requires a lot more code to achieve the same visual effects compared with CSS version.

Background

HTML was developed to structure information for easy comprehension like the <h1> tag indicates an important headline and the <h2> tag for a subheading of the <h1> tag.

But soon HTML tags were used to control appearance rather than structure information like the <blockquote> tag. The <table> tag was used to create columns of text and accurately place pictures and text on a page. But sometimes nesting a table within a table within a table was used making it very difficult to comprehend and maintain.

Hence, browser came out with new tags and attributes for making a page look better like tag has specification for font color and typeface. Graphics were also used to achieve desired visual effects.

With introduction of CSS by W3C, HTML is used to structure and organize the content and CSS to make that content visually appealing thus, separating presentation of content from the structure and organization of content.

Advantages

Effort and Time Reduction: CSS substantially reduces the time and effort to compose not only a single document but for the whole website.

Bandwidth and Space Reduction: CSS is more versatile than HTML styling tags as its cascading property reduces the disk space for styling a website and also the bandwidth required.

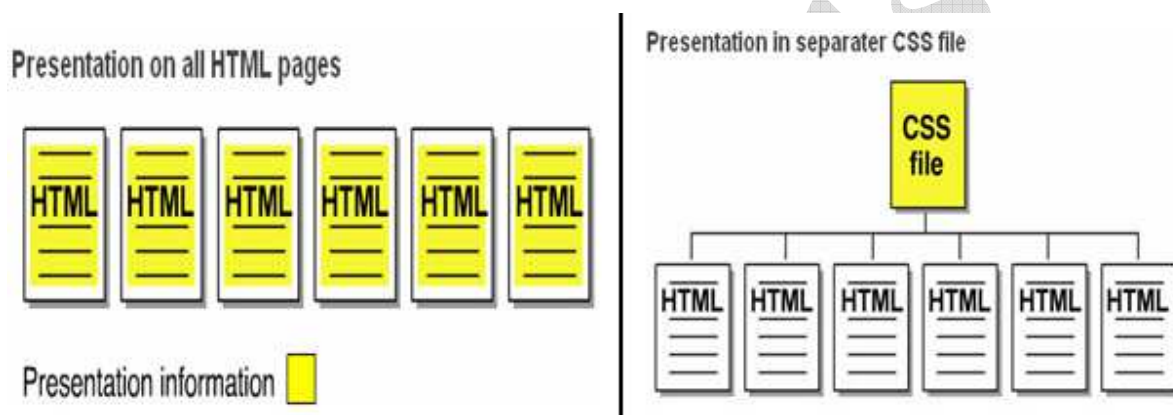
Centralized Update - Presentation and visual effects of a website can be centralized by using CSS.

Independent: CSS can be written independently of HTML.

Multiple Device Support: CSS allows content to be optimized for different devices like printer, mobile devices, screen, etc using the same HTML document.

Caching: CSS downloaded by browsers are cached hence, CSS file is downloaded only once fast performance of website.

Advantages are illustrated as



1.3 CSS Editors

CSS can be written with a plain text editor like notepad but advanced text editors do useful things like code coloring or syntax highlighting, automatically completing the code and some editors are

Notepad++: It is open source editor which is free.

Crimson Editor: It is also a free editor.

HTML-kit: It is also a free editor.

Adobe Dreamweaver: It is commercial paid software.

1.4 A CSS Example

This example introduces CSS and for which the HTML document is needed is given first and then followed by the CSS file.

Webpage.htm:

In your text editor of choice, enter the following markup

```

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
"http://www.w3.org/TR/xhtml1-strict.dtd">
<html lang="en">
<head>
<title>Vskills Example </title>
<link rel="stylesheet" type="text/css" href="style.css" />
</head>
<body>
<h1>Vskills Certification </h1>
<div class="list1">
<h2>CSS Designer</h2>
<p>CSS designer certification is used to impart CSS certification.</p>
</div>
<div class="list1">
<h2>HTML Certification</h2>
<p>HTML certification is used to impart HTML certification.</p>
</div>
</body>
</html>

```

Style.css:

```

body {
width: 650px;
margin: 0 auto;
background: #FFF;
font: 12px sans-serif;
}

h1 {
font-size: 20px;
}

h2 {
font-size: 16px;
margin-top: 0;
}

.list1 {
margin: 10px 10px;
padding: 20px 20px;
border: 1px solid #F00;
}

```

Output:

Vskills Certification

CSS Designer

CSS designer certification is used to impart CSS certification.

HTML Certification

HTML certification is used to impart HTML certification.

As the figure shows that CSS can be used to stylize the various HTML elements on a web page thus simplifying the process of styling the same.

1.5 Custom CSS

Web browsers in which CSS works, is not same as different browsers are installed in different computers and each has different versions of same browser as well. Browser and their respective versions support different levels of CSS styling and for achieving the visual effects of CSS across all of them, work-around are used to get over the patchy support. Different browsers are

Browser	Rendering Engine	CSS 2.1 support
Google Chrome	WebKit	Full
Mozilla Firefox	Gecko	Full
Apple Safari	WebKit	Full
Internet Explorer	Trident	Full from IE 7
Opera	Presto	Full

1.6 Cross Browser Testing

There are a lot of web browsers for different operating systems and cross browser testing on some is discussed

Windows- It can only run one version of IE hence can test only in installed version like IE 6, IE 7 or IE 8 but IETester program can display a web page for different versions like in IE 5.5, IE 6, IE 7 and IE 8. Install other browsers like Firefox, Safari, Opera or Chrome.

Mac - Safari web browser is provided but for other web browser use a virtualization software like VMWare.

Many cross-browser testing services websites are on internet for doing this task.

1.7 Including CSS

CSS can be included in a web page in following four ways

Embedded Style Sheets - Embedded style sheets are included between <style> and </style> tags in an web page's head section as

```
<style type="text/css">
body { font: 12px sans-serif; }
</ style >
```

External Style Sheets - In it CSS is in a separate document which is linked to an web page by the <link> element with "rel" attribute having "stylesheet" as its value, "type" attribute having "text/css" as its value and "href" attribute having the path to CSS file. It is used as

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

- ✓ rel="stylesheet" tells the link type—in this case, a link to a style sheet.
- ✓ type="text/css" lets web browser know the type of data to get—a text file, having CSS.
- ✓ href points to the location of the external CSS file and has the value of a URL similar to the src attribute in an <image> tag.

Import Rule - It is similar to external style sheet but instead of <link> element, it uses "@import" with "url" attribute storing the path to the CSS file. It is used as

```
<style type="text/css">
@import url(style.css);
</ style >
```

It can attach external style sheets to an external style sheet but the <link> tag can't.

Direct Style - Inline styles with the style attribute are used to apply CSS rules directly to an element in an web as

```
<body style="font: 12px sans-serif;">
```

What to choose - External style sheets are preferred because it collects all style information in a single file that is link to a web page with just a single line of code. You can attach the same external style sheet to every page in your website, providing a unified design. It also makes a complete site makeover as easy as editing a single text file.

It also help web pages load faster as no byte-hogging HTML tables or tags or internal CSS style code is used also, it is stored in cache or temporary space on computer for quick and repeated access.

Internal CSS usage is explained in the figure

```

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://ww
<html xmlns="http://www.w3.org/1999/xhtml">

<head>
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1" /
<title>demol.htm for CSS Discussion</title>
<style type="text/css">
<!--
body {
    background-color: #CEDCE3;
}
-->
</style>
</head>

<body>
<h2>Three paragraphs -- Heading 2 </h2>

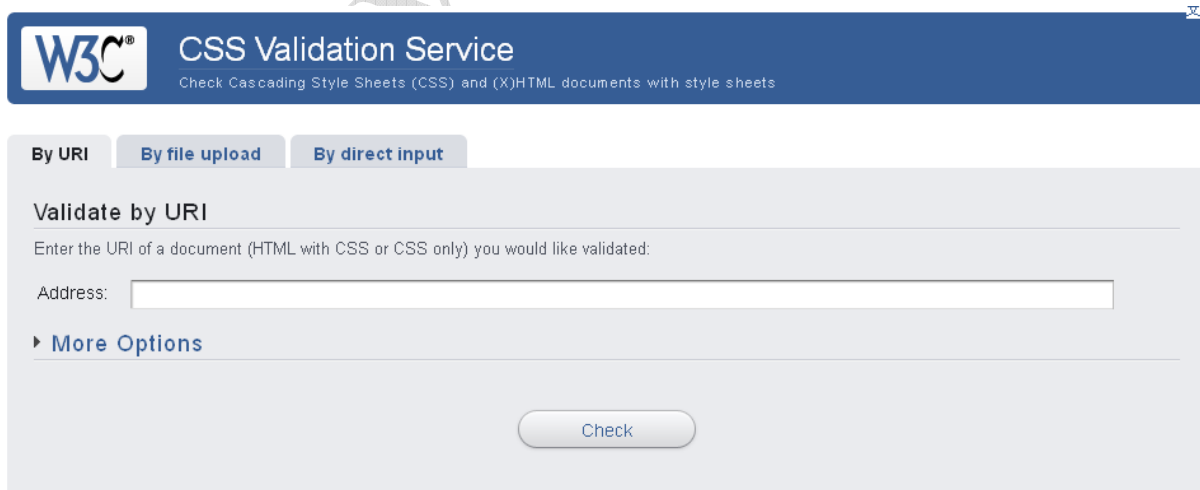
```

1.8 Validating CSS

CSS can be validated similar to HTML by CSS validator tool (<http://jigsaw.w3.org/css-validator/>) provided by W3C by typing the URL of a web page (or the address to an external CSS file), or uploading a CSS file or copy and pasting CSS code into a web form and submit it for validation.

Web browsers also have built-in error checking tools for examining CSS like in Mozilla Firefox click Error Console option in Tools menu to open CSS errors.

It is shown in the figure.



Self Assessment Questions

Q.1 CSS is used for

- A. Content Development
- B. Content tagging
- C. Content Styling
- D. None

Q.2 Only external CSS files can be used for styling a web page

- A. True
- B. False
- C. Can not say
- D. None

Q.3 CSS should be validated

- A. True
- B. False
- C. Can not say
- D. None

Answers : 1-C, 2-B,3-A