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Day 3. CSS 3

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CSS 3 - Topics Overview

✓CSS 3 Introduction

✓Vendor Prefixes

- –Moz, –Webkit, – O, -ms

✓New Selectors

- ^, $, *

✓New Pseudo elements

- :first-of-type, :last-of-type, :only-of-type

✓New Pseudo classes

- :first-child, :only-child, :last-child

✓New Properties

✓Animation, Transition, Transform

What is CSS 3

- .CSS i.e *Cascading Style Sheets* enables you to define rules on how an element should appear.
- 2.CSS styles are extremely expressive and detailed and allows you to have a very high degree of control over the styling of HTML elements with very little code.
- 3.And just like HTML even CSS has evolved over the years, the latest version being CSS3, the latest version has added a lot of new capabilities to existing ones.
- 4. CSS3 together with HTML5 has been at the forefront of advanced WebDesign and WebDevelopment.

References

- http://www.w3schools.com/
- http://i4grafx.net/i4ms.html

Working of CSS.

1. For any Web Document, the HTML defines the **structure** of the Webpage while the CSS defines the **appearance** and style of the Webpage.
2. The appearance of the entire document and every single element can be controlled to great detail with CSS. These properties can be weight, colour, size, shadow etc.
3. You can set the CSS settings for specific HTML tags at one central location and it affects the appearance of these targeted elements.
4. Though HTML and CSS go hand in hand, HTML consists of Mark-ups while CSS consists of rulesets targeting specific HTML elements.
5. When ever you visit a webpage ,the webserver sends you the HTML file along with the CSS code for that file(internal or external).
6. The Web Browser interprets the file and then applies the CSS styles to the HTML elements using's its particular rendering engine. Hence, you see a presentable webpage with styles, fonts, colours , shadows etc.

CSS Modules

1. W3C (***World Wide Web Consortium***) which defines the standards and Specifications for CSS has introduced a Module Based approach for Styling Webpages.
2. This module approach allows browser companies to add new modules to Browsers with new releases and Updates. This method breaks the previous monolithic approach, greatly simplifying the standardisation process.

CSS3

Main Features that are included in CSS3 include

o Support for additional selectors.

o Drop shadows,

o Rounded corners,

o Multiple backgrounds,

o Gradients,

o Animation,

o Transparency and many more…

CSS3

The CSS3 specification is still under development by W3C. However, many of the new CSS3 properties have been implemented in modern browsers.

- New Selectors
- Backgrounds and Borders
- Gradient Effects
- Text Effects and Fonts
- Transformations
- Transitions
- Animations
- Multiple Column Layout.

CSS Vendor Prefixes

- CSS vendor prefixes, also sometime known as or CSS browser prefixes, are a way for browser makers to add support for new CSS features before those features are fully supported in all browsers.
- This may be done during a sort of testing and experimentation period where the browser manufacturer is determining exactly how these new CSS features will be implemented. These prefixes became very popular with the rise of CSS3 a few years ago. When CCS3 was first being introduced, a number of excited properties began to hit different browsers at different times. For example, the webkit-powered browsers (Safari and Chrome) were the first ones to introduce some of the animation-style properties like transform and transition. By using vendor prefixed properties, web designers were able to use those new features in their work and have them seen on the browsers that supported them right away, instead of having to wait for every other browser manufacturer to catch up!
- So from the perspective of a front-end web developer, browser prefixes are used to add new CSS features onto a site while having comfort knowing that the browsers will support those styles. This can be especially helpful when different browser manufacturers implement properties in slightly different ways or with a different syntax.

CSS Vendor Prefixes

The CSS browser prefixes that you can use (each of which is specific to a different browser) are:

- Android: -webkit-
- Chrome: -webkit-
- Firefox: -moz-
- Internet Explorer: -ms-
- iOS: -webkit-
- Opera: -o-
- Safari: -webkit-

CSS 3 New Selectors

In CSS, pattern matching rules determine which style rules apply to elements in the document tree. These patterns, called selectors, may range from simple element names to rich contextual patterns.

Selector	**Example**	**Description**
[attribute^=value]	a[href^=”https”]	Selects every <a> element whose href attribute value begins with “https”
[attribute$=value]	a[href$=”.pdf”]	Selects every <a> element whose href attribute value ends with “.pdf”
[attribute*=value]	a[href*=”deccansoft”]	Selects every <a> element whose href attribute value contains the substring “deccansoft”
E1~E2	p~ul	Selects every <ul> element that are preceded by a <p> element
E:checked	input:checked	Selects every checked <input> element

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CSS 3 New Pseudo elements

E:nth-of-type(n)	p:nth-of-type(2)	Selects every <p> element that is the second <p> element of its parent
E:nth-last-of-type(n)	p:nth-last-of-type(2)	Selects every <p> element that is the second last <p> element of its parent.
E:in-range	input:in-range	Selects input elements with a value within a specified range
E:out-of-range	input:out-of-range	Selects input elements with a value outside a specified range
E:invalid	input:invalid	Selects all input elemets with an invalid value
E:valid	input:valid	Selects all input elements with a valid value
E:not(selector)	:not(p)	Selects every element that is not a <p> element
E:optional	input:optional	Selects input elements with no “required” attribute
E:read-only	input:read-only	Selects input elements with the “readonly” attribute specified
E:read-write	input:read-write	Selects input elements with the “readonly” attribute NOT specified
E:required	input:required	Selects input elements with the “required” attribute specified
E:root	:root	Selects the document’s root element
E:target	#news:target	Selects the current active #news element (clicked on a URL containing that anchor name)

CSS 3 New Pseudo classes

E:disabled	input:disabled	Selects every disabled <input> element
E:enabled	input:enabled	Selects every enabled <input> element
E:empty	p:empty	Selects every <p> element that has no children (including text nodes)
E:last-child	p:last-child	Selects every <p> element that is the last child of its parent
E:only-child	p:only-child	Selects every <p> element that is the only child of its parent
E:nth-child(n)	p:nth-child(2)	Selects every <p> element that is the second child of its parent
E:nth-last-child(n)	p:nth-last-child(2)	Selects every <p> element that is the second last child of its parent.
E:first-of-type	p:first-of-type	Selects every <p> element that is the first <p> element of its parent
E:last-of-type	p:last-of-type	Selects every <p> element that is the last <p> element of its parent
E:only-of-type	p:only-of-type	Selects every <p> element that is the only <p> element of its parent

New css3 Properties

- border-radius.
- box-shadow.
- text-shadow.
- Text-Stroke.
- Multiple Backgrounds.
- **background**-size.
- text-overflow.
- Flexible Box Model.

Animation Properties

Property	Description
animation	Specifies the keyframe-based animations.
animation-delay	Specifies when the animation will start.
animation-direction	Specifies whether the animation should play in reverse on alternate cycles or not.
animation-duration	Specifies the number of seconds or milliseconds an animation should take to complete one cycle.
animation-fill-mode	Specifies how a CSS animation should apply styles to its target before and after it is executing.
animation-iteration-count	Specifies the number of times an animation cycle should be played before stopping.
animation-name	Specifies the name of @keyframes defined animations that should be applied to the selected element.
animation-play-state	Specifies whether the animation is running or paused.
animation-timing-function	Specifies how a CSS animation should progress over the duration of each cycle.

Transform Properties

Property	Description
backface-visibility	Specifies whether or not the "back" side of a transformed element is visible when facing the user.
perspective	Defines the perspective from which all child elements of the object are viewed.
perspective-origin	Defines the origin (the vanishing point for the 3D space) for the perspective property.
transform	Applies a 2D or 3D transformation to an element.
transform-origin	Defines the origin of transformation for an element.
transform-style	Specifies how nested elements are rendered in 3D space.

Transitions Properties

Property	Description
transition	Defines the transition between two states of an element.
transition-delay	Specifies when the transition effect will start.
transition-duration	Specifies the number of seconds or milliseconds a transition effect should take to complete.
transition-property	Specifies the names of the CSS properties to which a transition effect should be applied.
transition-timing-function	Specifies the speed curve of the transition effect.

Q & A

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Thank You

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