

HTML5& CSS3

Presentation by Uplatz

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- Interview question and answers

1)What is HTML5?

- HTML5 is the most recent version of the **HTML(Hypertext Markup Language)**.
- It is a language for structuring and displaying content for the World Wide Web, a core technology of the Internet.

2)What is < !DOCTYPE>? Is it necessary to use in HTML5?

- The < !DOCTYPE> is an instruction to the web browser about what version of HTML the page is written in.
- AND The < !DOCTYPE> tag does not have an end tag and It is not case sensitive.
- The < !DOCTYPE> declaration must be the very first thing in HTML5 document, before the tag.

- As In HTML 4.01, all `<!DOCTYPE>` declarations require a reference to a Document Type Definition (DTD), because HTML 4.01 was based on Standard Generalized Markup Language (SGML).
- Where as HTML5 is not based on SGML, and therefore does not require a reference to a Document Type Definition (DTD).

3) List out the new features of HTML5?

- The `<canvas>` element for 2D drawing
- The `<video>` and `<audio>` elements for media playback
- Support for local storage New content-specific elements, like `<article>`, `<footer>`, `<header>`, `<nav>`, `<section>`

4)What is Canvas? How to write a Canvas ?

- Canvas is a element of HTML5 which uses JavaScript to draw graphics on a web page.
- A canvas is a rectangular area.
- Each and every pixel of it can be controlled by us. There are several methods for drawing paths, boxes, circles, characters, and adding images by using canvas.
- To add canvas tag to our HTML document we need id, width and height.
- Below is the example how to write a basic canvas tag to your HTML document.

```
<canvas id="myFirstCanvas" width="100"  
height="100"> </canvas>
```

5) What is the sessionStorage Object in HTML? How to create and access?

- The sessionStorage object stores the data for one session.
- The data is deleted when the user closes the browser window. like below we can create and access a sessionStorage here we created “blogName” as session.

```
<script type="text/javascript">  
sessionStorage.blogName="OnlineInterviewQuestions  
";  
document.write(sessionStorage.name);  
</script>
```

6) What is the difference between Html5 application cache and regulate Html browser cache?

- The new HTML5 specification allows browsers to prefetch some or all of website assets such as HTML files, images, CSS, JavaScript, and so on, while the client is connected.
- It is not necessary for the user to have accessed this content previously, for fetching this content.
- In other words, application cache can prefetch pages that have not been visited at all and are thereby unavailable in the regular browser cache.
- Prefetching files can speed up the site's performance, though you are of course using bandwidth to download those files initially.

7) What is the use of LocalStorage in HTML5?

- Before HTML5 LocalStores was done with cookies. Cookies are not very good for large amounts of data, because they are passed on by every request to the server, so it was very slow and in-effective.
- In HTML5, the data is NOT passed on by every server request, but used ONLY when asked for.
- It is possible to store large amounts of data without affecting the website's performance. and The data is stored in different areas for different websites, and a website can only access data stored by itself.
- And for creating localstores just need to call localStorage object like below we are storing name and address.

```
<script type="text/javascript">  
localStorage.name="ABC";
```



```
localStorage.address="New Delhi India.";
document.write(localStorage.address);
</script>
```

8) Can you list the new input type attributes in HTML5?

tel The input is of type telephone number

search The input field is a search field

url a URL

email One or more email addresses

datetime A date and/or time

date A date

month A month

week A week

time The input value is of type time

datetime-local A local date/time

number A number.

range A number in a given range.

color A hexadecimal color, like #82345c

placeholder Specifies a short hint that describes the expected value of an input field.

9) What is SVG and advantages of SVG?

- SVG is a language for describing two-dimensional vector graphics in XML.
- SVG stands for Scalable Vector Graphics
- SVG is used to define vector-based graphics for the Web
- SVG defines the graphics in XML format
- SVG graphics do NOT lose any quality if they are zoomed or resized
- Every element and every attribute in SVG files can be animated

SVG is a W3C recommendation

Code Example:

```
<?xml version="1.0" standalone="no"?>
<!DOCTYPE svg PUBLIC "-//W3C//DTD SVG 1.1//EN"
"http://www.w3.org/Graphics/SVG/1.1/DTD/svg11.dtd"
&#8221;&gt;
<svg xmlns="http://www.w3.org/2000/svg&#8221;
version="1.1">
<circle cx="100" cy="50" r="40" stroke="black"
stroke-width="2" fill="red" />
</svg>
```

10)What are the advantages of SVG?

SVG images can be created and edited with any text editor

- SVG images can be searched, indexed, scripted, and compressed
- SVG images are scalable
- SVG images can be printed with high quality at any resolution
- SVG images are zoomable (and the image can be zoomed without degradation)

11) Differences Between SVG and Canvas:

- SVG is a language for describing 2D graphics in XML.
- Canvas draws 2D graphics, on the fly (with a JavaScript).
- SVG is XML based, which means that every element is available within the SVG DOM. You can attach JavaScript event handlers for an element.

- In SVG, each drawn shape is remembered as an object. If attributes of an SVG object are changed, the browser can automatically re-render the shape.
- Canvas is rendered pixel by pixel.
- In canvas, once the graphic is drawn, it is forgotten by the browser.
- If its position should be changed, the entire scene needs to be redrawn, including any objects that might have been covered by the graphic

12) Difference between Transitional and Strict doctype.

Strict :

- This DTD contains all HTML elements and attributes, but does NOT INCLUDE presentational or deprecated elements (like font).
- Framesets are not allowed.

Transitional :

- This DTD contains all HTML elements and attributes, INCLUDING presentational and deprecated elements (like font).
- Framesets are not allowed.

13) What are New Semantic/Structural Elements

HTML5 offers new elements for better structure:

Tag	Description
-----	-------------

<article>	Defines an article
------------------------	--------------------

<aside>	Defines content aside from the page content
----------------------	---

<bdi>	Isolates a part of text that might be formatted in a different direction from other text outside it
--------------------	---

<command>	Defines a command button that a user can invoke
------------------------	---

<details> Defines additional details that the user can view or hide

<dialog> Defines a dialog box or window

<summary> Defines a visible heading for a <details> element

<figure> Specifies self-contained content, like illustrations, diagrams, photos, code listings, etc.

<figcaption> Defines a caption for a <figure> element

<footer> Defines a footer for a document or section

<header> Defines a header for a document or section

<hgroup> Groups a set of <h1> to <h6> elements when a heading has multiple levels

<mark> Defines marked/highlighted text

<meter> Defines a scalar measurement within a known range (a gauge)

<nav> Defines navigation links

<progress> Represents the progress of a task

<ruby> Defines a ruby annotation (for East Asian typography)

<rt> Defines an explanation/pronunciation of characters (for East Asian typography)

<rp> Defines what to show in browsers that do not support ruby annotations

<section> Defines a section in a document

<time> Defines a date/time

<wbr> Defines a possible line-break

14) What are the New Media Elements in HTML5? is canvas element used in HTML5

- Below are the New Media Elements have added in HTML5

Tag Description

<audio> For multimedia content, sounds, music or other audio streams

<video> For video content, such as a movie clip or other video streams

<source> For media resources for media elements, defined inside video or audio elements

- For embedded content, such as a plug-in
- <track> For text tracks used in mediaplayers
- we can use Canvas element in html5 like
<canvas></canvas>

15) How to add video and audio in HTML5

- The canvas element is used to draw graphics images on a web page by using javascript like below

Like below we can add video in html5

1. **<video width="320" height="240" controls="controls">**
2. **<source src="mysong.mp4" type="video/mp4" />**
3. **<source src="mysong.ogg" type="video/ogg" />**
4. **</video>**

And audio like this

1. **<audio controls="controls">**
2. **<source src="mysong.ogg" type="audio/ogg" />**
3. **<source src="mysong.mp3" type="audio/mpeg" />**
4. **</audio>**

16) What purpose does HTML5 serve?

- HTML5 is the proposed next standard for HTML 4.01, XHTML 1.0 and DOM Level 2 HTML.

- It aims to reduce the need for proprietary plug-in-based rich internet application (RIA) technologies such as Adobe Flash, Microsoft Silverlight, Apache Pivot, and Sun JavaFX

17) What is the difference between HTML5 Application cache and regular HTML browser cache?

- HTML5 specification allows browsers to prefetch some or all of a website assets such as HTML files, images, CSS, JavaScript, and so on, while the client is connected.
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- In other words, application cache can prefetch pages that have not been visited at all and are thereby unavailable in the regular browser cache.

- Prefetching files can speed up the site's performance, though you are of course using bandwidth to download those files initially.

18) WHAT ARE THE NEW APIS PROVIDED BY THE HTML 5 STANDARD? GIVE A BRIEF DESCRIPTION OF EACH?

- The canvas element: Canvas consists of a drawable region defined in HTML code with height and width attributes.
- JavaScript code may access the area through a full set of drawing functions similar to other common 2D APIs, thus allowing for dynamically generated graphics.
- Some anticipated uses of the canvas include building graphs, animations, games, and image composition.

Timed media playback

- Offline storage database
- Document editing
- Drag-and-drop
- Cross-document messaging
- Browser history management
- MIME type and protocol handler registration

19) WHAT OTHER ADVANTAGES DOES HTML5 HAVE?

- a) Cleaner markup
- b) Additional semantics of new elements like `<header>`, `<nav>`, and `<time>`
- c) New form input types and attributes that will (and in Opera's case, do) take the hassle out of scripting forms.

20) What does a <hgroup> tag do?

- The <hgroup> tag is used to group heading elements.
- The <hgroup> element is used to group a set of <h1> to <h6> elements.

```
<hgroup>
```

```
<h1>Hello</h1>
```

```
<h2>How r u?</h2>
```

```
</hgroup>
```

21) What are the new APIs provided by the HTML 5 standard? Give a brief description of each

- The canvas element: Canvas consists of a drawable region defined in HTML code with height and width attributes.

- JavaScript code may access the area through a full set of drawing functions similar to other common 2D APIs, thus allowing for dynamically generated graphics.

Some anticipated uses of the canvas include building graphs, animations, games, and image composition.

- Timed media playback
- Offline storage database
- Document editing
- Drag-and-drop
- Cross-document messaging
- Browser history management
- MIME type and protocol handler registration

22) What new features added in CSS3 for Borders and how Browser Support it?

➤ following border features added

- border-radius
- box-shadow
- border-image

and all modern Browser Support it like below

- Internet Explorer 9 supports border-radius and box-shadow
- Firefox requires the prefix -moz- for border-image.
- Chrome and Safari requires the prefix -webkit- for border-image.

Opera requires the prefix -o- for border-image.

23) How you will create Rounded Corners using css3

- We have to create a class like below

```
<style>
```

```
.roundc{
```

```
border:2px solid #ff0000;
```

```
border-radius:25px;
```

```
background:#dddddd;
```

```
width:300px;
```

```
-moz-border-radius:25px; /* Firefox */
```

```
-webkit-border-radius:25px; /* Chrome and Safari */
```

```
-o-border-radius:25px; /* Opera */
```

```
}
```

```
</style>
```

and we have to add this class where we want the round corner like in below div

```
<div class="roundc" > this is the round corner by c
```

24) What is the CSS3 animation ?

- When the animation is created in the @keyframe, bind it to a selector, otherwise the animation will have no effect.
- Bind the animation to a selector by specifying at least these two CSS3 animation properties:
 - Specify the name of the animation
 - Specify the duration of the animation

25) What are the limitations of CSS ?

Limitations are:

- Ascending by selectors is not possible
- Limitations of vertical control
- No expressions
- No column declaration
- Pseudo-class not controlled by dynamic behavior
- Rules, styles, targeting specific text not possible

26) . In how many ways can a CSS be integrated as a web page?

- CSS can be integrated in three ways:
- **Inline:** Style attribute can be used to have CSS applied HTML elements.
- **Embedded:** The Head element can have a Style element within which the code can be placed.
- **Linked/ Imported:** CSS can be placed in an external file and linked via link element.
- **27) What benefits and demerits do External Style Sheets have?**
- Benefits:

One file can be used to control multiple documents having different styles.

- Multiple HTML elements can have many documents, which can have classes.
- To group styles in composite situations, methods as selector and grouping are used.

Demerits:

- Extra download is needed to import documents having style information.
- To render the document, the external style sheet should be loaded.
- Not practical for small style definitions.

28) Discuss the merits and demerits of Embedded Style Sheets?

Merits of Embedded Style Sheets:

Multiple tag types can be created in a single document.

- Styles, in complex situations, can be applied by using Selector and Grouping methods.
- Extra download is unnecessary.

Demerits of Embedded Style Sheets:

- Multiple documents cannot be controlled.

29)What does CSS selector mean?

- A string equivalent of HTML elements by which declarations or a set of it, is declared and is a link that can be referred for linking HTML and Style sheet is CSS selector.

30). Enlist the media types CSS allows?

- The design and customization of documents are rendered by media.
- By applying media control over the external style sheets, they can be retrieved and used by loading it from the network.

31) Differentiate logical tags from physical tags?

- While physical tags are also referred to as presentational mark-up, logical tags are useless for appearances.
- Physical tags are newer versions while logical tags are old and concentrate on content.

32) Differentiate Style Sheet concept from HTML?

- While HTML provides easy structure method, it lacks styling, unlike Style sheets.
- Moreover, style sheets have better browser capabilities and formatting options.

33) Describe 'ruleset'?

Ruleset : Selectors can be attached to other selectors to be identified by ruleset.

It has two parts:

Selector, e.g. R and

declaration {text-indent: 11pt}

34) Comment on the Case-sensitivity of CSS ?

- Although, there are no case-sensitivity of CSS, nevertheless font families, URL's of images, etc is.
- Only when XML declarations along with XHTML DOCTYPE are being used on the page, CSS is case - sensitive.

35) Define Declaration block?

- A catalog of directions within braces consisting of property, colon and value is called declaration block.

e.g.: [property 1: value 3]

36). Enlist the various fonts' attributes?

They are:

- Font-style
- Font-variant
- Font-weight
- Font-size/line-height
- Font-family
- Caption
- Icon

37). Why is it easy to insert a file by importing it?

- Importing enables combining external sheets to be inserted in many sheets.
- Different files and sheets can be used to have different functions. Syntax:

@import notation, used with <Style> tag.

38) What is the usage of Class selector?

- Selectors that are unique to a specific style, are called CLASS selectors. Declaration of style and association with HTML can be made through this.

Syntax:

Classname

it can be A-Z, a-z or digits.

.top {font: 14em ;}, class selector

<Body class= "top"> this class is associated with element
</body>

39) Differentiate Class selector from ID selector?

- While an overall block is given to class selector, ID selector prefers only a single element differing from other elements.

- In other words, ID are uniques while classes are not. Its possible that an element has both class and ID.

40). Can more than one declaration be added in CSS?

- Yes, it can be achieved by using a semicolon.

41) What is Pseudo-elements ?

- Pseudo-elements are used to add special effects to some selectors.
- CSS is used to apply styles in HTML mark-up.
- In some cases when extra mark-up or styling is not possible for the document, then there is a feature available in CSS known as pseudo-elements.
- It will allow extra mark-up to the document without disturbing the actual document

42)What happens if 100% width is used along with floats all across the page?

- While making the float declaration, 1 pixel is added every time it is used in the form of the border, and even more float is allowed thereafter.

43). Can default property value be restored through CSS? If yes, how?

- In CSS, you cannot revert back to old values due to lack of default values.
- The property can be re- declared to get the default property.

44) Enlist the various Media types used?

- Different media has different properties as they are case insensitive.

They are:

Aural – for sound synthesizers and speech

Print – gives a preview of the content when printed

Projection- projects the CSS on projectors.

Handheld- uses handheld devices.

Screen- computers and laptop screens.

45). What is CSS Box Model and what are its elements?

This box defines design and layout of elements of CSS.

The elements are:

Margin: the top most layer, the overall structure is shown

Border: the padding and content option with a border around it is shown. Background color affects the border.

Padding: Space is shown. Background colour affects the border.

Content: Actual content is shown.

46) What is contextual selector?

- Selector used to select special occurrences of an element is called contextual selector.
- A space separates the individual selectors.
- Only the last element of the pattern is addressed in this kind of selector. For e.g.: TD P TEXT {color: blue}

47) Compare RGB values with Hexadecimal color codes ?

- A color can be specified in two ways:
- A color is represented by 6 characters i.e. hexadecimal color coding. It is a combination of numbers and letters and is preceded by #. e.g.:
g {color: #00cjfi}
- A color is represented by a mixture of red, green and blue.

The value of a color can also be specified

- . e.g.: `rgb(r,g,b)`: In this type the values can be in between the integers 0 and 255. `rgb(r%,g%,b%)`: red, green and blue percentage is shown.

48) Define Image sprites with context to CSS ?

- When a set of images is collaborated into one image, it is known as 'Image Sprites'.
- As the loading every image on a webpage consumes time, using image sprites lessens the time taken and gives information quickly.

CSS coding:

CSS

```
img.add { width: 60px; height: 55px; background: url  
(image.god) 0 0; }
```

1

```
img.add { width: 60px; height: 55px; background: url  
(image.god) 0 0;
```

49) How can the dimension be defined of an element ?

Dimension properties can be defined by:

- Height
- Max-height
- Max-width
- Min-height
- Min-width
- Width

50) Define float property of CSS?

- By float property, the image can be moved to the right or the left along with the text to be wrapped around it.
- Elements before this property is applied do not change their properties.

51). How does Z index function?

- Overlapping may occur while using CSS for positioning HTML elements.
- Z index helps in specifying the overlapping element.
- It is a number which can be positive or negative, the default value being zero.


52). What is graceful degradation?

- In case the component fails, it will continue to work properly in the presence of a graceful degradation. The latest browser application is used when a webpage is designed.
- As it is not available to everyone, there is a basic functionality, which enables its use to a wider audience.
- In case the image is unavailable for viewing, text is shown with the alt tag.

53)What is progressive enhancement?

- It's an alternative to graceful degradation, which concentrates on the matter of the web.
- The functionality is same, but it provides an extra edge to users having the latest bandwidth.
- It has been into prominent use recently with mobile internet connections expanding their base.

54)Why is @import only at the top?

- @import is preferred only at the top, to avoid any overriding rules.
 - Generally, ranking order is followed in most programming languages such as Java, Modula, etc.
 - In C, the # is a prominent example of a @import being at the top.
- 

55) Which among the following is more precedent: CSS properties or HTML procedures?

- CSS is more precedent over HTML procedures. Browsers, which do not have CSS support, display HTML attributes.

56) What is Inline style?

- The Inline style in a CSS is used to add up styling to individual HTML elements.

57) How comments can be added in CSS?

- The comments in CSS can be added with `/*` and `*/`.

58). Define Attribute Selector ?

- It is defined by a set of elements, value and its parts.

59) Define property?

- A style, that helps in influencing CSS. E.g. FONT.
- They have corresponding values or properties within them, like FONT has different style like bold, italic etc.

60). What is Alternate Style Sheet?

- Alternate Style Sheets allows the user to select the style in which the page is displayed using the view>page style menu.
- Through Alternate Style Sheet, user can see a multiple version of the page on their needs and preferences.

61) Are quotes mandatory in URL's?

- Quotes are optional in URL's, and it can be single or double.

62) What is at-rule?

- Rule, which is applicable in the entire sheet and not partly, is known as at-rule.
- It is preceded by @ followed by A-Z, a-z or 0-9.

63) Explain How flexibility is achieved more in CSS3?

- Flexibility achieved is in the greater ratio in CSS3 because of the feature of handling multiple style sheets in CSS3 and because of the modularized approach of CSS3

64) What is the difference between CSS and CSS3 ?

- CSS3 is upgraded version of CSS with new future like Selectors, Box Model, Backgrounds and Borders, Text Effects, 2D/3D Transformations, Animations, Multiple Column Layout, User Interface etc

64) List out CSS3 modules?

Below is list of most important CSS3 modules are

- Selectors
- Box Model
- Backgrounds and Borders
- Text Effects
- 2D/3D Transformations
- Animations
- Multiple Column Layout
- User Interface

65) What is the CSS3 animation?

- When the animation is created in the @keyframe, bind it to a selector, otherwise, the animation will have no effect.

Bind the animation to a selector by specifying at least these two CSS3 animation properties:

- Specify the name of the animation
- Specify the duration of the animation

66) Explain What are the values that can be taken by property white-space of CSS3?

The five values that can be taken by property white-space of CSS3 are

- **Normal**
- **pre**
- **nowrap**
- **pre-wrap**
- **pre-line**

67) What are the possible values of the “Position” attributes?

The possible value of the “Position” attributes are

- **absolute**
- **fixed**
- **inherit**
- **relative**
- **Static**

68) What is the word wrap/word wrapping in CSS3?

- word wrap/word wrapping is used to allow long words to be able to break and wrap onto the next line in css3 we used word-wrap property like below class

```
.wrapWord{word-wrap:break-word;}
```

69) What is CSS3 Flexbox?

- Flexible boxes, or flexbox, is a new layout mode in CSS3.
- Flexbox consists of flex containers and flex items.
- A flex container is declared by setting the display property of an element to either flex (rendered as a block) or inline-flex (rendered as inline).
- Inside a flex container, there are one or more flex items.

70) List some advantages to CSS3 animations over script-based animation?

- Advantages of using CSS3 animations over script-based animation techniques are as follows:
- Easy to use and anybody can create them without the knowledge of JavaScript.



Interview question
and answers

Summary:

Thank You.....

If you have any queries please write to info@uplatz.com".