Module 4) CSS and CSS 3

1. What are the benefits of using CSS?
   - CSS plays an important role, by using CSS you simply got to specify a repeated style for element once & use it multiple times as because CSS will automatically apply the required styles.
   - The main advantage of CSS is that style is applied consistently across variety of sites. One instruction can control several areas which is advantageous.
   - Web designers needs to use few lines of programming for every page improving site speed.
   - Cascading sheet not only simplifies the maintenance as a change of one line of code affects the whole web site and maintenance time.
   - It is less complex therefore the effort are significantly reduced.
   - It helps to form spontaneous and consistent changes.
   - CSS changes are device friendly. With people employing a batch of various range of smart devices to access websites over the web, there's a requirement for responsive web design.
   - It has the power for repositioning. It helps us to determine the changes withing the positon of web elements who are there on the page.
   - These bandwidth savings are substantial figures of insignificant figures of insignificant tags that are indistinct from a mess of pages.
   - Easy for the user to customize the online page.
   - It reduces the file transfer size.

2. What are the disadvantages of CSS?
   - 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 nondevelopers and beginner. Different levels of CSS i.e. CSS, CSS2, CSS3 are often quite confusing.
   - Browser compatibility (some style 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 nondevelopers and beginners.

3. What is the difference between CSS2 and CSS3?

CSS2	CSS3
CSS splits up different sections of the code into modules.	Both CSS and HTML were put into a single file, there was no concept of modules before.
There are new ways you can write CSS rules with a bunch of CSS selectors.	There were no new ways of writing the CSS rules.
There is no backward compatibility with CSS2.	There is backward compatibility maintained with CSS3.

With CSS2 only web safe fonts can be used.	With CSS3 special fonts can be used such as those in Google Fonts and TypeCast.
With CSS2 th concept of simple selectors were present.	With CSS3 the selectors were called as a sequence of simple selectors.
Using CSS2, for rounded borders, coding the css styles were complex.	With CSS3, there is provision for automatically assigning rounded borders to objects.
CSS2, splitting text into multiple columns required complex coding because the standard was not equipped enough to break the text into columns so that it would fit into a box.	CSS3 has the capability to split text into various columns so that each text block appears as a layout of the newspaper.
CSS2 doesn't support the border-box property.	CSS3 supports the Border-box property.

4. Name a few CSS style components

   Font-size

   Width

   Height

   Background-color

   Background-image

   Text-color

   Text-transformation

   Text-intendation

   Text-alignment

   Text-decoration

5. What do you understand by CSS opacity?

   - 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.

6. How can the background color of an element be changed?
   - By using background-color property of css we can change the color of an element.

7. How can image repetition of the backup be controlled?
   - By setting the value of property background-repeat: no repeat we can stop repetition of the image.

8. What is the use of the background-position property?
   - The background-position CSS property sets the initial position for each background image. The position is relative to the position layer set by background-origin.

For example:

   - Background-position: top;
   - Background-position: left;
   - Background-position: center;
   - Background-position: 25% 75%;
   - Background-position: bottom 50px;

- Background-position: right 35%;

9. Which property controls the image scroll in the background?
    - The Background-attachment property in CSS is used to specify the kind of attachment of the background image with respect to its container. It can be set to scroll or make it remain fixed. It an be applied to all HTML elements.
10. Why should background and color be used as separate properties?
    - The background property is a complex property in CSS, and if it is combined with color, the complexity will further increase.
11. How to center block elements using CSS1?
    - There are two steps to center a block-level element:
    - Step1:Define the external width
    - We need to define the external width. Block-level elements have the default width of 100% of the webpage, so for centering the block element, we need spae around it. So for generating the space, we are giving it a width.
    - Step2:Set the left-margin and the right-margin of the element to auto
    - Since we produced a remaingi space by providing external width so now we need to align that space properly that's why we should use margin property. Margin is a property that tells how t align a remaining space.
    - So for centering the element you must set left-margin to auto and right marging to auto.
12. How to maintain the CSS specifications?
    - The CSS specifications are maintained by the World Wide Web Consortium(W3C).
    - Even though every browser supports CSS, there are many inconsistencies in the supported specification version. Somre browsers even have their own implementation of the specification and have proprietary(vendor) prefixes.
13. What are the ways to integrate CSS as a web page?
    - 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.
14. What is embedded style sheets?
    - An embedded style sheet is declared withing the <head> element of an XHTML document. It applies to the whole document, reather than just one element. Each style declaration (or CSS rule) gets applied to everything in the document that matches that rule.
15. What are the external style sheets?
    - 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 withing the head section of the page.
16. What are the advantages and disadvantages of using external style sheets?
    Advantages:
    - Separation of content and presentation: An external style sheel allows you to separate the content of your website (HTML) from the presentation (CSS). This makes it easier to maintain and update your website, as you only need to change the style sheet rather than making changes to the HTML of each individual page.

- Resuable styles: An external style sheet can be reused across multiple pages and websites, saving time and making it easier to maintain a consistent look and feel.
- Improved performance: An external style sheet is only loaded once, even if it is used on multiple pages. This can improve the performance of your website, as the browser does not need to download the same styles repeatedly.

Disadvantages:

- Addition HTTP request: An external style sheet requires an additional HTTP request to load, which can slightly increase the time it takes for the page to render.
- Limited control:With and external style sheet, you have less control over the specific elements on a page, as the styles are applied globally to all elements that use the same class or ID.
- Harder to override: It can be harder to override the styles in an external style sheet, as they are applied globally. To override a style, you need to use more specific selectors or use the !important declaration, which can make your style sheet more complex and difficult to maintain.

17. What is the meaning of the CSS 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.

18. What are the media types allowed by CSS?
- All: Suitable for all devices.
- Aural: Intended for speech synthesizers.
- Braille:Intended for Braille tactile feedback devices.
- Embossed:Intended for pages Braille printers.
- Handleheld:Intended for handheld devices(typically small screen, monochrome, limited bandwidth).
- Print:Intended for paged, opaque material and for documents viewed on screen in print previewmode.
- Projection:Intended for projected presentations, for example projectors or print to transparencies.
- Screen:Intended primarily for color computer screens.
- Tty: Intended for media using a fixed-pitch character grid, such as teletypes, terminals, or portable devices with limited display capabilities.
- Tv:Intended for television-type devices.

19. What is the rule set?
- A rule set is a collectionof one or many rules that are executed together as a single unit against a specific set of records(either from one source or a set of conjoined sources) and generate several levels of statistics.