CSS ASSIGNMENT

1). What are the benefits of using CSS?

There are a many benefits of CSS

1. CSS saves time
2. Pages load faster
3. Easy maintenance
4. Easy Formatting Changes
5. Faster Page Speed
6. Superior styles to HTML
7. Superior styles to HTML
8. Quicker Development Time

2). What are the disadvantages of CSS?

1. Confusion due to many CSS levels : Beginners are more vulnerable to this issue. They might get confused while opting to learn CSS as there are many levels of CSS such as CSS2, CSS3, etc.

2. Cross-Browser Issues :Different browsers work differently. So, you have to check that changes implemented in the website via CSS codes are reflected properly among all browsers.

3. Security Issues :Security is important in today's world driven by technology and data. One of the major disadvantages of CSS is that it has limited security.

4. Extra Work for Developers : Design services are required to consider and test all CSS codes across different browsers for compatibility. Due to developers testing compatibility for different browsers, their workload increases.

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3). What is the difference between CSS2 and CSS3?

Features	CSS2	CSS3
Design	CSS does not support responsive design.	CSS3 is the latest version and supports the responsive design.
Modules	CSS is not divided into modules.	CSS3 could split into modules.
Animation	CSS cannot produce 3D animation and transformation.	All transformations and animations are performed by using CSS3.
Capacity	CSS is slower.	CSS3 is faster than CSS.
Color	CSS provides unique color schemas and standard color.	CSS3 supports HSL RGBA, HSLA and the gradient colors.
Blocks	Multi-column text blocks are defined in CSS3.	CSS supports single text blocks.
Media Querie	Doesn’t support	Supports responsive web design
Browser Support	No support for modern browsers, but it still works on older versions of Explorer or Chrome	Supported fully by all modern browsers
Compatibility Between Versions	Not compatible with CSS3	Backward compatible with CSS
Block Support	Supports single blocks only	Supports multi-column text blocks
Animation Use	It only allows basic animations and doesn't support transformation, text animation, transition, or 3D animations	It offers advanced animations and many customization options. It also supports text animation, transformation, and transition
Responsive Design	It doesn’t support media queries, thus not ideal for making responsive designs	Works with media queries, thus allowing responsive web design
Performance	It provides average performance and requires high memory usage	It offers fast, excellent performance and doesn’t use as much memory

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4). Name a few CSS style components

- **CSS Border:** The CSS border property defines a border around an HTML element.
- **CSS Padding:** The CSS padding property defines a padding (space) between the text and the border. Example. ...
- **CSS Margin:** The CSS margin property defines a margin (space) outside the border
- **Selector:** class name, id name or element name that is target.
- **Positioning:** CSS provides properties for controlling the positioning of elements.
- **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.
- **Transitions and Animations:** CSS allows you to create smooth transitions and animations by using properties like transition and animation. These properties enable you to control the gradual change of element styles over time.
- **Media Queries:** Media queries are used to apply different styles based on the characteristics of the device or screen size, making websites responsive to various devices and screen resolutions.

5). What do you understand by CSS opacity?

The opacity property sets the opacity level for an element. The opacity-level describes the transparency-level, where 1 is not transparent at all, 0.5 is 50% see-through, and 0 is completely transparent.

Example :

```
<!DOCTYPE html>
<html>
<head>
<style>
div {
  background-color: purple;
  opacity: 0.5;
}
h1{
    background-color: brown;
    opacity: 0.2;
}
</style>
</head>
<body>

<h1>hello</h1>
<div>Lorem ipsum dolor sit amet, consectetur adipisicing elit. Ut, similique?</div>
</body>
</html>
```

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Output :

hello

Lorem ipsum dolor sit amet, consectetur adipisicing elit. Ut, similique?

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

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.

Example :

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Vrishanlkt</title>
    <style>
       table{
        background-color: aqua;
        color: red;
       }
    </style>
</head>
<body>
    <center>
    <Table border="1"cellpadding="15">
        <tr>
            <td>V</td>
            <td>R</td>
            <td>I</td>
            <td>S</td>
            <td>H</td>
            <td>A</td>
            <td>N</td>
            <td>K</td>
        </tr>

    </Table>
</center>
</body>
```

Output :

V	R	I	S	H	A	N	K

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

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.

Example :

```
<!DOCTYPE html>
<html>
<head>
<style>

.h1{
    height: 200px;
    width: 200px;
    background-color: red;
    background-image: url(img/download.jpg);
    background-repeat: no-repeat;
    background-size: cover;
}

</style>
</head>
<body>
    <div class="h1">
        <h1> world</h1>
    </div>

</body>
</html>
```

Output :

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

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

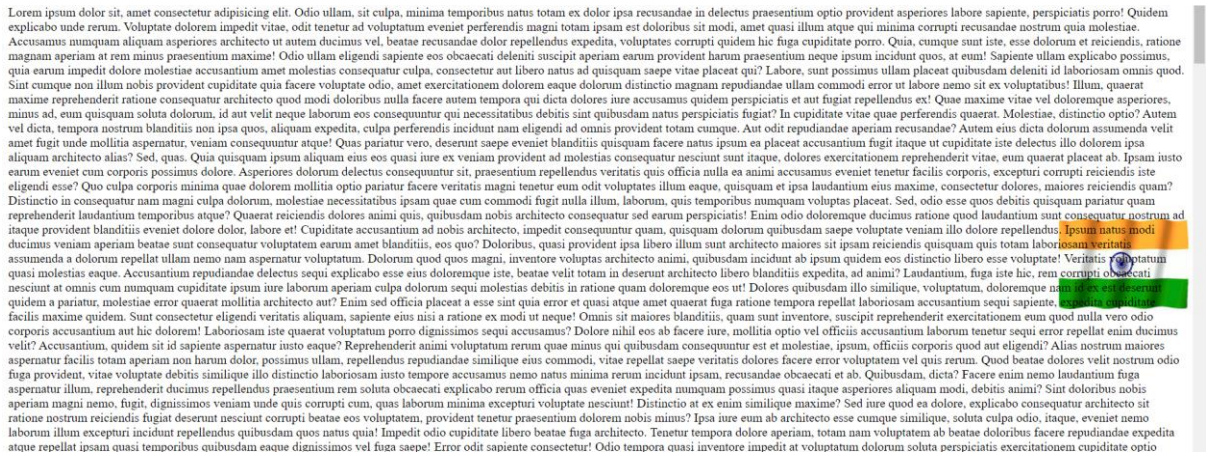
Example :

```
<!DOCTYPE html>
<html>
<head>
<style>
body {
  background-image: url(img/indiaflg.jpg);
  background-repeat: no-repeat;
  background-attachment: fixed;
  background-position: right;
}
</style>
</head>
<body>

<p>Lorem ipsum dolor sit, amet consectetur adipisicing elit. Odio ullam, sit culpa, minima temporibus natus to

</body>
</html>
```

Output :



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

There are three possible values for the background-attachment property:

1. scroll: This is the default value. It means that the background image will scroll along with the content as the user scrolls down the page.

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2. fixed: When set to "fixed," the background image will remain fixed in place, so it won't move as the user scrolls. This creates a parallax effect where the background appears stationary while the content scrolls over it.

3. local: This value is not as widely supported as the others. It's similar to "scroll" but can have different behavior in certain situations, such as with CSS Grid and CSS columns.

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

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?

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

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>
    <center>
        <h1>hello world.</h1>>
    </center>
</body>
</html>
```

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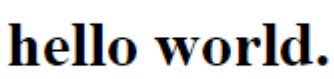
Output:



12). How to maintain the CSS specifications?

- **CSS Preprocessors**: Use tools like Sass or Less to write organized and maintainable CSS.
- **Style Guide:** Create and follow a CSS style guide for coding conventions and consistency.
- **Modularization:** Break CSS into modular components and files.
- **Meaningful Class Names:** Use clear, descriptive class names.
- **Local Scoping:** Avoid global styles; scope styles to specific components.
- **Version Control:** Use Git for tracking changes and collaboration.
- **Documentation:** Add comments to explain CSS rules and components.
- **Dependency Updates:** Keep CSS frameworks and libraries up to date.
- **Testing:** Regularly test CSS across browsers and devices.
- **Refactoring:** Periodically clean up and optimize CSS code.
- **Responsive Design:** Ensure CSS accommodates various screen sizes.
- **Accessibility:** Follow best practices for accessible CSS.
- **Communication:** Collaborate and communicate with team members and designers.

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

There are major 3 ways to integrate CSS into a web page

1. Inline CSS: CSS styles can be included directly within HTML elements using the style attribute. It's suitable for small, specific styles but can make your HTML less maintainable.

2. Internal CSS: CSS styles can be placed within a section. This is useful for single-page styling but doesn't promote reusability.

3. External CSS: CSS can be placed in a separate .css file and linked to the HTML using the element in the section. This method promotes code organization and reusability.

14). What is embedded style sheets?

Embedded style sheets, also known as internal style sheets, are a way to include CSS directly within an HTML document. With embedded style sheets, you define your CSS rules within the section of an HTML document. These styles are then applied to the HTML elements within that document.

Example:

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
    <style>
        body{
            background-color: aquamarine;
        }
        h1{
            color: red;
            text-align: center;
        }
        div{
            font-size: 20px;
            line-height: 2;
        }
    </style>
</head>
<body>
    <h1>tops technology</h1>
    <div>Lorem ipsum dolor sit amet consectetur, adipisicing elit. Obcaecati, illum consequuntur eum nisi, similique explicabo voluptatum vitae error, nemo nobis quibusdam quo neque sunt inventore quisquam laborum labore maiores porro!</div>
</body>
</html>
```

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Output:

15). What are the external style sheets?

- The external style sheet is generally used when you want to make changes on multiple pages. It is ideal for this condition because it facilitates you to change the look of the entire web site by changing just one file.
- It uses the <link> tag on every pages and the <link> tag should be put inside the head section.
- the external style sheet may be written in any text editor but must be saved with a .css extension. This file should not contain HTML elements.

Example:

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

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

Advantages of external style sheets

- with the help of External style Sheets, the style of numerous documents can be organized from one single file.
- In External style Sheets, classes can be made for use on numerous HTML element types in many forms of the site.
- In complex contexts, methods like selector and grouping can be implemented to apply styles.

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Disadvantages of External Style Sheets

- **An extra download is essential to import style information for each file.**
- **The execution of the file may be deferred till the external style sheet is loaded.**
- **While implementing style sheets, we need to test web pages with multiple browsers in order to chek compatibility issues.**

17). What is the meaning of the CSS selector?

CSS selectors are used to "find" (or select) the HTML elements you want to style.
There are 5 types of selectors
1.single selector :
2.group selector :
3.class selector : Selects elements with a specific class attribute. (define by dot .)
4.id selector : Selects a single element with a specific ID attribute. (define by hash #)
5.universal selector (define by star *)

Example :

```
<!DOCTYPE html>
<html lang="en">

<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
    <style>
        *{
            background-color: yellowgreen;
        }
        h1{
            background-color: burlywood;
        }
        h2,h3{
            background-color: violet;
        }
        .head{
            background-color: tomato;
        }
        #name{
            background-color: brown;
        }
    </style>
</head>
<body>

    <h1>hello world</h1>
    <h2>Vrishank</h2>
    <h3>beautiful</h3>
    <h4 class="head">Priyanka</h4>
    <h5 class="head" id="name">Pragnesh</h5>
    <h6 class="head">fine</h6>
    <p class="head" >vrishu</p>

</body>

</html>
```

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Output :

18). What are the media types allowed by CSS?

- ✓ **all:** This is the default media type and applies to all devices.
- ✓ **screen**: Used for screens and other similar devices with color capabilities.
- ✓ **print:** Used for printed documents or print preview. Styles defined for this media type are applied when users print a web page.
- ✓ **embossed :** Deprecated and no longer supported in modern browsers. It was intended for embossed or tactile feedback devices but is no longer in use.
- ✓ **speech:** Used for screen readers and speech synthesizers to make web content more accessible to users with disabilities.

19).What is the rule set?

A CSS rule set contains one or more selectors and one or more declarations

CSS Syntax

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The selector points to the HTML element you want to style.

The declaration block contains one or more declarations separated by semicolons.

Each declaration includes a CSS property name and a value, separated by a colon.

Multiple CSS declarations are separated with semicolons, and declaration blocks are surrounded by curly braces.

Example:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
    <style>
    h1{
        color: darkblue;
        text-align: center;
    }
    </style>
</head>
<body>
    <h1>tops technology</h1>
    <h1>welcome to my website</h1>
</body>
</html>
```

Output

---

tops technology

welcome to my website