

1.What is CSS?

CSS is a declarative language, which means that you tell the browser what you want the page to look like, but not how to do it. This makes CSS very flexible and powerful.

CSS is also a cascading language, which means that multiple CSS rules can be applied to the same element, and the browser will determine which rule to apply based on a set of rules. This cascading behavior can be used to create complex and sophisticated layouts.

CSS is an essential part of web development, and it is used by all major web browsers.

Here are some examples of what you can do with CSS:

- Change the font, size, and color of text
- Change the background color and image of a page
- Add borders and shadows to elements
- Create columns and grids
- Position elements on a page
- Create animations and transitions

CSS is a powerful tool that can be used to create beautiful and engaging web pages.

2.What are different ways to bring CSS to an html file?

Inline Styling:

Inline styling can be useful for quickly adding styling to individual elements without having to create a separate style sheet or modify an existing one. However, it can also make the HTML code more cluttered and difficult to read. Therefore, it's generally recommended to use internal or external style sheets for larger projects.

```
<!DOCTYPE html>
```

```
<html lang="en">fc
```

```
<head>
```

```
<meta charset="UTF-8">
```

```
<meta http-equiv="X-UA-Compatible" content="IE=edge">
```

```
<meta name="viewport" content="width=device-width,  
initial-scale=1.0">
```

```
<title>Inline sheet</title>
```

```
</head>
```

```
<body>
```

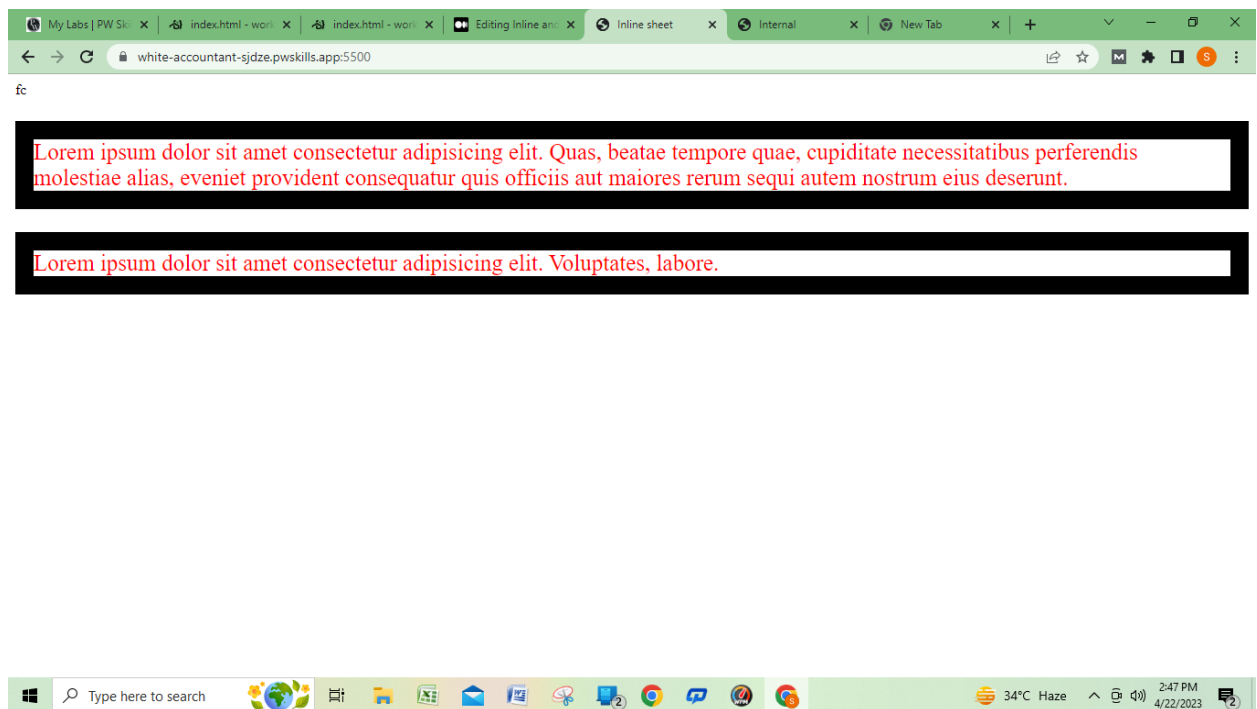
```
<p style="color:red ; font-size : 25px; border: 20px solid  
black;" >Lorem ipsum dolor sit amet consectetur adipisicing elit.  
Quas, beatae tempore quae, cupiditate necessitatibus perferendis  
molestiae alias, eveniet provident consequatur quis officiis aut  
maiores rerum sequi autem nostrum eius deserunt.</p>
```

```
<p style="color:red ; font-size : 25px; border: 20px solid black;"  
>Lorem ipsum dolor sit amet consectetur adipisicing elit.  
Voluptates, labore.</p>
```

```
</body>
```

```
</html>
```

Output:



Internal Styling:

Inline styles can be useful in situations where you want to apply a specific style to a single element without affecting other elements on the page. However, it's generally recommended to use an external CSS file for larger websites to keep the code organized and easier to maintain.

```
<!DOCTYPE html>
```

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

```
<head>
```

```
<meta charset="UTF-8">
```

```
<meta http-equiv="X-UA-Compatible" content="IE=edge">
```

```
<meta name="viewport" content="width=device-width,  
initial-scale=1.0">
```

```
<title>Internal</title>
```

```
</head>
```

```
<style>
```

```
.heading{
```

```
font-size: 43px;
```

```
color: aquamarine;
```

```
border: 5px solid black;
```

```
}
```

```
.par{
```

```
color: white;
```

```
background-color:black;
```

```
border: 5px solid red;
```

```
}
```

```
</style>
```

```
<body>
```

```
<!-- internal css -->
```

```
<h1 class="heading">Pw skills</h1>
```

```
<p class="par">Lorem ipsum dolor sit amet consectetur adipisicing  
elit. Odio perferendis amet mollitia, est iusto maiores, ipsum  
suscipit cupiditate repudiandae nulla dolorem, maxime vel dolores  
officia. Accusamus molestiae fuga ipsa consequatur, ducimus alias  
rem ullam. Voluptatibus, unde? Soluta cum totam ab repellat  
doloribus voluptate consequuntur sunt maxime laboriosam, commodi  
eque esse laudantium aliquam eligendi porro dolorum fuga vitae
```

repellendus dignissimos. Officiis, magnam ipsum eius reprehenderit
perferendis modi neque repellat, culpa assumenda, minus sunt placeat
quae. Neque, mollitia rerum veniam ratione voluptatibus non odit!
Architecto cum corrupti tempora nihil asperiores iusto, saepe ipsum
quaerat aspernatur ex vero ducimus expedita vel veniam natus!</p>

<p>Lorem, ipsum dolor sit amet consectetur adipisicing elit.
Doloremque vel et debitis sequi impedit, quidem molestias mollitia
porro voluptates ad quod omnis amet tempora accusantium preferendis
soluta. Dolorum nisi nulla error aperiam atque ex corporis porro
optio. Dicta enim ullam non, necessitatibus, alias, quam modi
dignissimos animi vitae optio tempore cupiditate. Modi libero earum
tempore ullam quisquam autem odit ducimus placeat rerum iure
inventore animi corrupti dicta molestiae consequuntur quam, sunt
quibusdam. Distinctio magnam commodi recusandae libero totam dolore
optio quo non obcaecati harum inventore natus autem vitae
laboriosam, consequatur laborum reiciendis voluptatibus fugit maxime
enim? Perferendis eveniet exercitationem ab.</p>

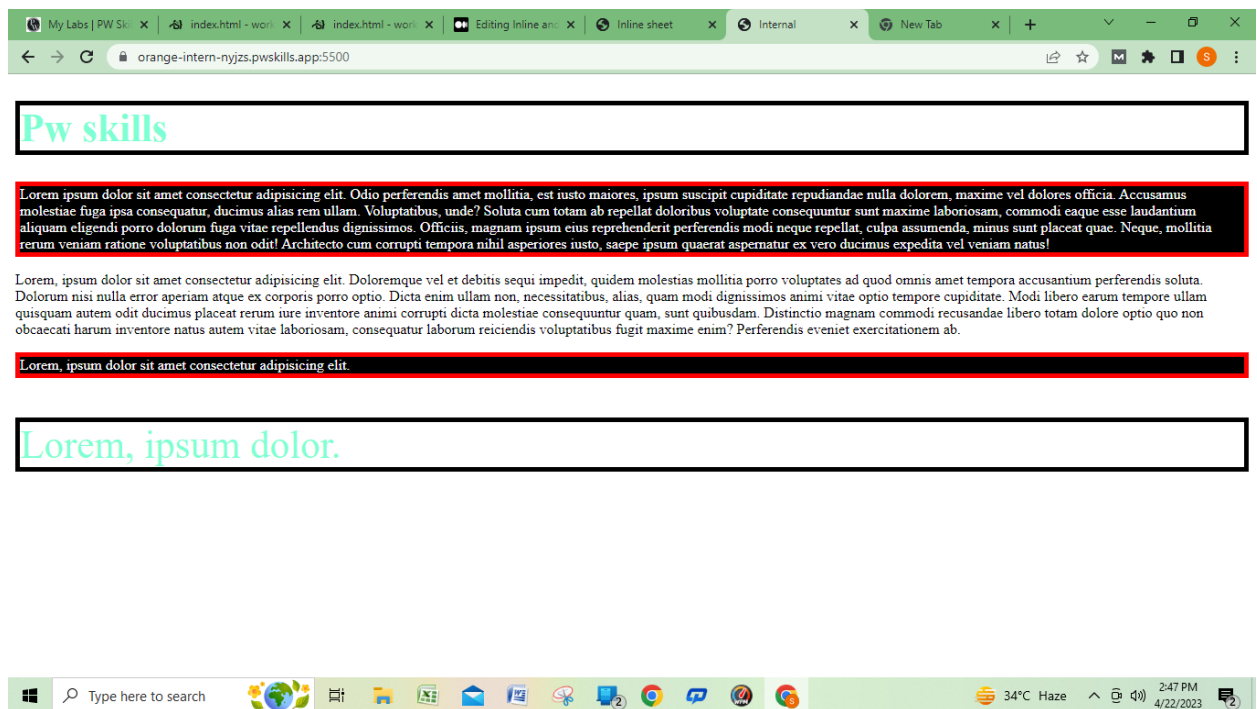
<p class="par">Lorem, ipsum dolor sit amet consectetur adipisicing
elit.</p>

<p class="heading">Lorem, ipsum dolor.</p>


```
</body>
```

```
</html>
```

Output:



External styling:

Here's the code:

```
<!DOCTYPE html>
```

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

```
<head>
```

```
<meta charset="UTF-8">
```

```
<meta http-equiv="X-UA-Compatible" content="IE=edge">
```

```
<meta name="viewport" content="width=device-width,  
initial-scale=1.0">
```

```
<title>External CSS</title>
```

```
<link rel="stylesheet" href="./pwskills.css">
```

```
</head>
```

```
<body>
```

```
<h1 class="heading">PW skills</h1>
```

```
<p>Lorem ipsum dolor sit amet consectetur adipisicing elit.  
Veritatis, eos!</p>
```

```
<p>Lorem ipsum dolor sit amet consectetur adipisicing elit.  
Veniam ratione quisquam veritatis aliquam sed quia repudiandae nihil  
facere at nam, incidunt placeat minus, itaque ab, repellat nostrum  
adipisci repellendus odit!</p>
```

```
<p>Lorem ipsum dolor sit amet consectetur adipisicing.</p>
```

```
<h2 class="heading">Footer of PW skills</h2>
```

```
</body>
```

```
</html>
```

This code demonstrates how to link an external CSS file (`pwskills.css`) to an HTML document using the `<link>` element. By doing this, you can keep your CSS code separate from your HTML code, which can make it easier to maintain and update your website's style.

3.What do you mean by specificity in CSS?

Specificity :

Specificity refers to the mechanism by which the browser decides which CSS rule should be applied to an HTML element when there are conflicting or overlapping rules. Specificity is a way to determine the "weight" or importance of a CSS selector. It ensures that the most specific rule takes precedence when multiple rules target the same element.

Inline styles have the highest specificity, followed by ID selectors, class selectors, and tag selectors.

Understand Higher specificity through code:

```
<p class="para hello" id="id1">Lorem ipsum dolor sit amet.</p>
```

Analyze output of above Html code :

The `id` attribute with the value of "id1" is unique to this element, making the selector targeting this ID even more specific than a class selector targeting a class shared among multiple elements.

Styles applied through the ID selector will take precedence over styles applied through the class selector.

The specificity of a CSS declaration is determined by the following factors:

- Inline styles: Inline styles have the highest specificity and will override all other styles, including external stylesheets and internal CSS.
- ID selectors: ID selectors have the next highest specificity.
- Class selectors and pseudo-classes: Class selectors and pseudo-classes have the same specificity, which is lower than ID selectors but higher than element selectors and pseudo-elements.

- Element selectors and pseudo-elements: Element selectors and pseudo-elements have the lowest specificity.

Note: If two or more CSS rules have the same specificity, the browser will apply the rule that comes last in the CSS code.

Inline Styles

Priority: Highest

Scope: Single Element ;defined using the `style` attribute on HTML elements.

Use Cases: Quick and specific changes to element style

Internal Styles

Priority: Medium

Scope: All Elements on the Same Page ;defined within a `<style>` element in the HTML document.

Use Cases: Styling multiple elements on the same page

External Styles

Priority: Lowest

Scope: All Elements on All Linked Pages ;defined in a separate CSS file that is linked to the HTML document using the `<link>` element in the `<head>` section.

Use Cases: Styling multiple pages on a website

Priority Order: Inline>Internal>External

Case : External>Internal

If the sequence of external and internal stylesheets is changed, the priority of the styles may also change. When an external stylesheet is linked before an internal stylesheet in the head section of the HTML document, the **external stylesheet** is given priority **over the internal stylesheet**. This is because the external stylesheet is

loaded first and then the internal stylesheet is parsed, overriding any styles defined earlier.