ProSensia Internship Report

Week 1

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Introduction to CSS

CSS (**Cascading Style Sheets**) is used to style and visually enhance HTML content. It controls the layout, colors, fonts, spacing, and overall presentation of web pages. Without CSS, websites would look plain and unstyled.

Day 1: Types of CSS

There are three main types of CSS, each with different uses:

- **Inline CSS**

Applied directly within an HTML element using the `style` attribute.

```html
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<p style="color: red;">This is red text</p>
```

- **Internal CSS**

Defined inside a `<style>` tag within the `<head>` of an HTML document.

```html
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<head>
  <style>
    p { color: blue; }
  </style>
</head>
```

- **External CSS**

Stored in a separate `.css` file and linked using a `<link>` tag.

```html
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<link rel="stylesheet" href="style.css">
```

This is the most scalable and recommended method for larger projects.

Day 2: Selectors, Colors, Units, and Typography

◆ **Selectors**

Used to target specific HTML elements:

- `element` selector: `p { }`
- `.class` selector: `.title { }`
- `#id` selector: `#header { }`

◆ **Colors**

Defined using:

- Names: `red`
- HEX: `#ff0000`
- RGB: `rgb(255, 0, 0)`
- HSL: `hsl(0, 100%, 50%)`

◆ **Units**

Used for spacing, sizing, etc.:

- Relative: `%`, `em`, `rem`
- Absolute: `px`, `pt`, `cm`

◆ **Typography**

CSS controls font size, family, style, and weight:

```css
css
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body {
  font-family: Arial, sans-serif;
  font-size: 16px;
  line-height: 1.5;
}
```

Day 3: Box Model

Every HTML element is a box made up of four parts:

1. **Content** – The actual text or image
2. **Padding** – Space inside the element, around the content
3. **Border** – A line surrounding the padding (optional)
4. **Margin** – Space outside the element

```css
css
CopyEdit
div {
  margin: 10px;
  padding: 15px;
  border: 2px solid black;
}
```

Day 4: Backgrounds, Borders, Shadows, and Gradients

◆ Backgrounds

```css
css
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background-color: lightblue;
background-image: url("image.jpg");
```

◆ Borders

```css
css
CopyEdit
border: 2px dashed green;
```

◆ Box Shadows

```css
css
CopyEdit
box-shadow: 2px 2px 5px gray;
```

◆ Gradients

```css
css
CopyEdit
background: linear-gradient(to right, red, blue);
```

These properties enhance visual appeal and depth in web design.

Day 5: Display and Positioning

◆ Display Types

- `block`: Takes full width (`<div>`)
- `inline`: Flows with text (`<span>`)
- `inline-block`: Mix of both
- `none`: Hides the element

◆ Positioning

- `static`: Default position

- relative: Moves relative to its normal position
- absolute: Positioned relative to nearest positioned ancestor
- fixed: Stays in place when scrolling

```css
CopyEdit
div {
  position: absolute;
  top: 50px;
  left: 100px;
}
```

Day 6: Flexbox

Flexbox is a layout module designed to arrange items in rows or columns easily.

◆ **Basic Usage**

```css
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.container {
  display: flex;
  justify-content: center;
  align-items: center;
}
```

◆ **Key Properties**

- display: flex: Enables flex context
- justify-content: Aligns items **horizontally**
    o center, space-between, space-around
- align-items: Aligns items **vertically**
    o center, flex-start, flex-end

Flexbox makes it easier to create responsive, flexible layouts without using floats or positioning tricks.