ProSensia Internship Report
Week 1

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Frontend development Report

Introduction to Web Development

Web development involves creating websites or web applications for the internet. It includes both front-end (what users see) and back-end (server-side) development. This report focuses on the **front-end foundation** — specifically **HTML (HyperText Markup Language)**, which is the basic building block of any webpage.

Day 1: What is HTML? Structure of HTML

HTML (HyperText Markup Language) is used to structure content on the web. It tells the browser how to display text, images, links, and more.

Basic HTML structure:

```
<!DOCTYPE html>
<html>
  <head>
    <title>My First Page</title>
  </head>
  <body>
    <!-- Page content goes here -->
  </body>
</html>
```

- `<!DOCTYPE html>`: Declares the document type.
- `<html>`: Root element.
- `<head>`: Metadata (title, styles, etc.).
- `<title>`: Sets the page title.
- `<body>`: Visible page content.

Day 2: Basic Tags

- `<html>`: Root of HTML document.
- `<head>`: Metadata section.
- `<body>`: Contains visible content.

- `<title>`: Title in browser tab.
- `<h1>` to `<h6>`: Headings from largest (`<h1>`) to smallest (`<h6>`).
- `<p>`: Paragraph.
- `<br>`: Line break.
- `<hr>`: Horizontal line.

Example:

```
<h1>Welcome to My Page</h1>
<p>This is a paragraph.<br>Here is a new line.</p>
<hr>
```

Day 3: Lists and Tables

Lists

- `<ul>`: Unordered List (bullets)
- `<ol>`: Ordered List (numbers)
- `<li>`: List Item

```
<ul>
  <li>Milk</li>
  <li>Bread</li>
</ul>
```

Tables

- `<table>`: Defines a table
- `<tr>`: Table row
- `<td>`: Table data
- `<th>`: Table heading

```
<table>
  <tr>
    <th>Name</th>
    <th>Age</th>
  </tr>
  <tr>
    <td>Ali</td>
    <td>21</td>
  </tr>
</table>
```

Day 4: Forms and Validation

HTML forms collect user input.

Form Elements:

- `<form>`: The form container

- `<input>`: Single-line input (text, email, password, etc.)
- `<textarea>`: Multi-line input
- `<select>`: Dropdown menu
- `<option>`: Options inside select
- `<button>`: Clickable button
- `<label>`: Labels for input fields

Example with Validation:

```
<form>
  <label for="name">Name:</label>
  <input type="text" id="name" required>

  <label for="email">Email:</label>
  <input type="email" id="email" required>

  <button type="submit">Submit</button>
</form>
```

Day 5: Media Tags

- `<img>`: Embeds an image
- `<audio>`: Embeds audio
- `<video>`: Embeds video
- `<iframe>`: Embeds another web page or YouTube video

Example:

```
<img src="image.jpg" alt="Sample Image" width="200">
<audio controls>
  <source src="sound.mp3" type="audio/mpeg">
</audio>
<video controls width="320">
  <source src="video.mp4" type="video/mp4">
</video>
<iframe src="https://example.com" width="300" height="200"></iframe>
```

Day 6: Semantic Tags

Semantic tags make the structure of the HTML more meaningful and accessible.

- `<header>`: Introductory content
- `<nav>`: Navigation links
- `<section>`: Thematic grouping of content
- `<article>`: Self-contained content (e.g., blog post)
- `<aside>`: Sidebar content
- `<footer>`: Footer section

Example:

```html
<header><h1>My Portfolio</h1></header>
<nav>
  <a href="#about">About</a>
  <a href="#contact">Contact</a>
</nav>
<section>
  <article>
    <h2>Project 1</h2>
    <p>Description...</p>
  </article>
</section>
<aside>Side info</aside>
<footer>© 2025 My Name</footer>
```