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Aim: Implementation of HTML Web development

<u>THEORY:</u>

What is HTML?

HTML (HyperText Markup Language) is the fundamental building block of the World Wide Web. It's a markup language used to:

• Create and structure content for web pages
• Define the meaning and structure of web content
• Enable the display of text, images, videos, and other multimedia

Basic Concepts

1. Markup Language

HTML is not a programming language but a markup language that uses tags to annotate text and other content for display in web browsers.

2. Elements and Tags

HTML documents are made up of elements, which are represented by tags:

- Opening tag: <tagname>
- Content: The actual content to be displayed
- Closing tag: </tagname>

Example: <p>This is a paragraph.</p>

3. Document Structure

A basic HTML document has this structure:

<!DOCTYPE html>

<html>

    <head>

        <title>Page Title</title>

    </head>

    <body>

        <!-- Content goes here -->

    </body>

</html>

Key Components

1. DOCTYPE Declaration

<!DOCTYPE html> defines the document type and HTML version (HTML5 in this case).

2. HTML Element

The <html> element is the root element that contains all other HTML elements.

3. Head Section

The <head> contains meta-information about the document:

- <title>: Sets the browser tab title

- **<meta>**: Provides metadata like character set, viewport settings
- **<link>**: Links to external resources like CSS
- **<script>**: Contains or links to JavaScript code

4. Body Section

The <body> contains all the visible content:

- Text elements (<h1> to <h6>, <p>, <span>, etc.)
- Media elements (<img>, <video>, <audio>)
- Structural elements (<div>, <section>, <header>, <footer>)
- Interactive elements (<a>, <button>, <form>)

HTML Principles

1. Semantic HTML: Using elements that convey meaning about the content structure (like <article>, <nav>, <footer>)
2. Accessibility: Writing HTML that's accessible to all users, including those with disabilities
3. Separation of Concerns: Keeping content (HTML), presentation (CSS), and behavior (JavaScript) separate
4. Progressive Enhancement: Building from basic content to more complex features

Evolution of HTML

- HTML 1.0 (1993): The first version
- HTML 2.0 (1995): Standardized features
- HTML 4.01 (1999): Added CSS support
- XHTML (2000): XML-based strict version
- HTML5 (2014): Current standard with multimedia, semantic elements, and APIs

CODE:

index.html

```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>
        <link rel="stylesheet" href="index.css" />
    </head>
    <body>
        <main>
            <h1>
                You have been invited to a
                <pre class="title">birthday party</pre>
            </h1>
            <form action="">
                <label for="name">
                    <span>Name :</span>
                    <input name="name" type="text" placeholder="Enter name" />
                </label>
                <label for="time">
                    <span>Time :</span>
                    <input name="time" type="text" placeholder="Enter time" />
                </label>
                <label for="place">
                    <span>Place :</span>
                    <input name="place" type="text" placeholder="Enter place" />
                </label>
                <section>
                    <button>Clear</button>
                    <button>Submit</button>
                </section>
            </form>
            <a href="gifts.html">Send Gift > </a>
        </main>
        <img src="cake.jpg" alt="" srcset="" />
    </body>
</html>
```

gift.html

```html
<!DOCTYPE html>
<html lang="en">
    <head>
        <meta charset="UTF-8" />
        <meta name="viewport" content="width=device-width, initial-scale=1.0" />
        <title>My Wonderful Gifts</title>
        <link rel="stylesheet" href="index.css" />
    </head>
    <body>
        <main>
            <h1>🎁 Gifts Received So Far 🎀</h1>
            <ul>
                <li>🥭 Mangoes</li>
                <li>⌚ Watch</li>
                <li>🧢 Cap</li>
                <li>👕 T-Shirt</li>
                <li>📚 Book</li>
                <li>🎧 Headphones</li>
                <li>🍫 Chocolates</li>
                <li>🖼 Picture Frame</li>
            </ul>
            <a href="index.html"> < Back</a>
        </main>
        <img src="cake.jpg" alt="Celebration cake" srcset="" />
    </body>
</html>
```

index.css

```css
* {
    margin: 0;
    padding: 0;
}

body {
    font-family: system-ui, -apple-system, BlinkMacSystemFont, "Segoe UI",
        Roboto, Oxygen, Ubuntu, Cantarell, "Open Sans", "Helvetica Neue",
        sans-serif;
```

```css
    overflow-x: hidden;
    position: relative;
    display: flex;
    justify-content: center;
    align-items: center;
    width: 100vw;
    height: 100vh;
}

h1,
h2,
h3,
h4,
h5,
h6 {
    font-weight: normal;
    text-align: center;
}

main {
    border-radius: 12px;
    display: flex;
    flex-direction: column;
    gap: 2rem;
    color: #fff;
    padding: 2rem;
    background: rgba(255, 255, 255, 0.1);
    backdrop-filter: blur(10px);
    -webkit-backdrop-filter: blur(10px);
    border: 1px solid rgba(255, 255, 255, 0.2);
    box-shadow: 0 4px 30px rgba(0, 0, 0, 0.1);
}

form {
    display: flex;
    flex-direction: column;
    gap: 1rem;
    width: inherit;
}

label {
```

```css
        display: flex;
        flex-direction: row;
        align-items: center;
        gap: 0.5rem;
    }

    span {
        font-size: large;
        width: 20%;
    }

    input {
        width: 100%;
        border-radius: 5px;
        padding: 0.35rem;
        font-size: medium;
    }

    section {
        width: 100%;
        display: flex;
        gap: 1rem;
        justify-items: center;
        align-items: center;
    }

    button {
        width: 100%;
        border-radius: 5px;
        padding: 0.35rem;
        font-size: medium;
        cursor: pointer;
    }

    img {
        z-index: -1;
        width: 100vw;
        height: 100vh;
        position: absolute;
        object-fit: cover;
        inset: 0;
```
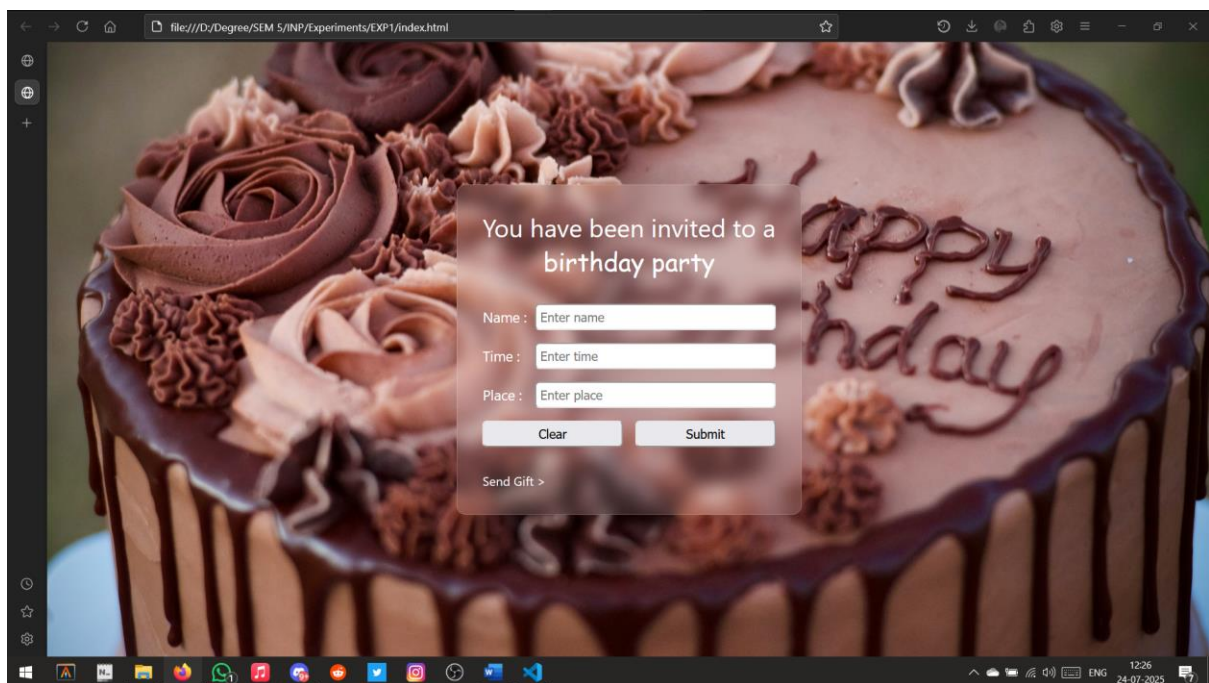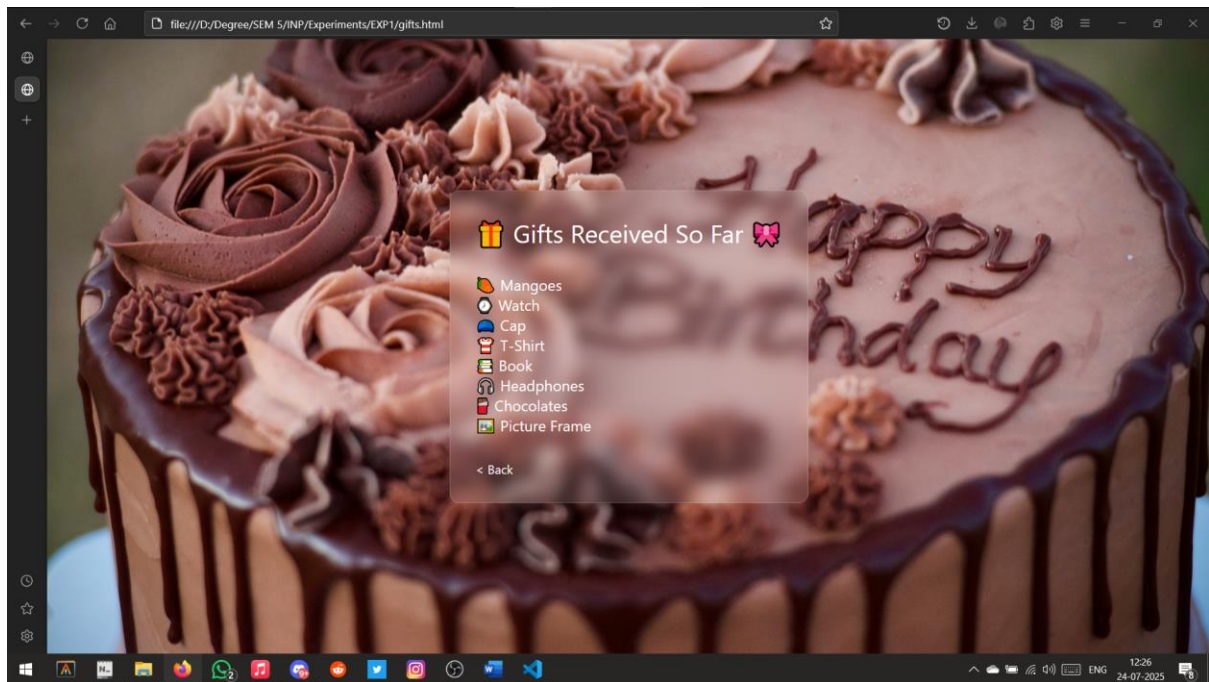
```
}

a {
    color: #fff;
    text-decoration: none;
}

li {
    list-style-type: none;
    font-size: larger;
}

.title {
    text-align: center;
    font-size: xx-large;
    font-family: cursive;
}
```

OUTPUT:

CONCLUSION:

This experiment introduced HTML theory and practical implementation through a birthday invite project. We learned about HTML structure, tags (images, lists, tables, forms), and web development principles. The hands-on project demonstrated how to create structured, interactive web content using fundamental HTML elements effectively.