Experiment No. 1

Aim:

HTML: Elements, Attributes, Head, Body, Hyperlink, Formatting, Images, Tables, List, Frames, Forms, Multimedia

A. Theory:

HTML

The Hyper Text Markup Language or HTML is the standard markup language for documents designed to be displayed in a web browser. It defines the meaning and structure of web content. It is often assisted by technologies such as Cascading Style Sheets (CSS) and scripting languages such as JavaScript.

Web site: A set of interconnected web pages, usually including a homepage, generally located on the same server, and prepared and maintained as a collection of information by a person, group, or organization.

Web Page: A web page is a document that's created in html that shows up on the internet when you type in or go to the web page's address.

Types of Web Pages:

- **Static web page:** is delivered exactly as stored, as web content in the web server's file system. Contents cannot be changed.
- **Dynamic web page:** is generated by a web application that is driven by server-side software or client-side scripting. Dynamic web pages help the browser (the client) to enhance the web page through user input to the server. Contents can be changed as evolution over time.

  General structure of a Web Page A basic HTML page contains a Head section and a Body section. The contents of the head section are normally invisible in a web browser and mainly consists of some Metatags. The Body consist of those HTML elements that you want to have displayed in your browser.
  <html>
  <head>
  </head>
  <body>
  </body>
  </html>

  ### Creating HTML document:
  To begin coding HTML user needs only two things:
  1. A simple text editor (notepad).
  2. A web browser.

Simple steps to create a basic HTML document:

1. Open notepad or another text editor.
2. At the top of the page type.
3. Add the opening header tag.
4. On the next line type.
5. Go to next line and type closing header tag.
6. Go to next line and type opening body tag.
7. Go to next line and type closing body tag.
8. Finally, go to next line and type </html>.
9. In the file menu, choose save as.
10. In the save as type option box, choose all files.
11. Name the file filename.html
12. Click save.
13. Run the html code using browser.

HTML tags mentioned in the aim along with their purpose and syntax:1.

1.Elements:

- **Purpose: Building blocks of web pages, define structure and content.**
- **Syntax: Enclosed by tags, e.g., `<p>Content</p>`.**

2. Attributes:

- **Purpose: Provide extra info, modify behavior/appearance.**
- **Syntax: Added to opening tags, e.g., `<img src="image.jpg">`.**

3. Head:

- **Purpose: Contains meta-information about the document.**
- **Syntax: `<head>...</head>`**

4. Body:

- **Purpose: Holds visible content of the web page.**
- **Syntax: `<body>...</body>`**

5. Hyperlink:

- **Purpose: Creates links to other web pages or resources.**
- **Syntax: `<a href="url">link text</a>`**

6. Formatting:

- **Purpose: Defines text formatting, like bold or italic.**
- **Syntax: Various tags, e.g., `<strong>`, `<em>`.**

7. Images:

- **Purpose: Embeds images in the web page.**
- **Syntax: `<img src="image.jpg" alt="description">`**

8. Tables:
- **Purpose: Organizes data into rows and columns.**
- **Syntax: `<table>...</table>`, `<tr>...</tr>`, `<td>...</td>`, etc.**

9. Lists:
- **Purpose: Creates ordered or unordered lists.**
- **Syntax: `<ul>...</ul>`, `<ol>...</ol>`, `<li>...</li>`.**

10. Frames:
- **Purpose: Divides the web page into multiple sections.**
- **Syntax: `<frame>`, `<frameset>`, `<iframe>` (deprecated).**

11. Forms:
- **Purpose: Gathers user input, like text fields or buttons.**
- **Syntax: `<form>...</form>`, `<input>`, `<textarea>`, etc.**

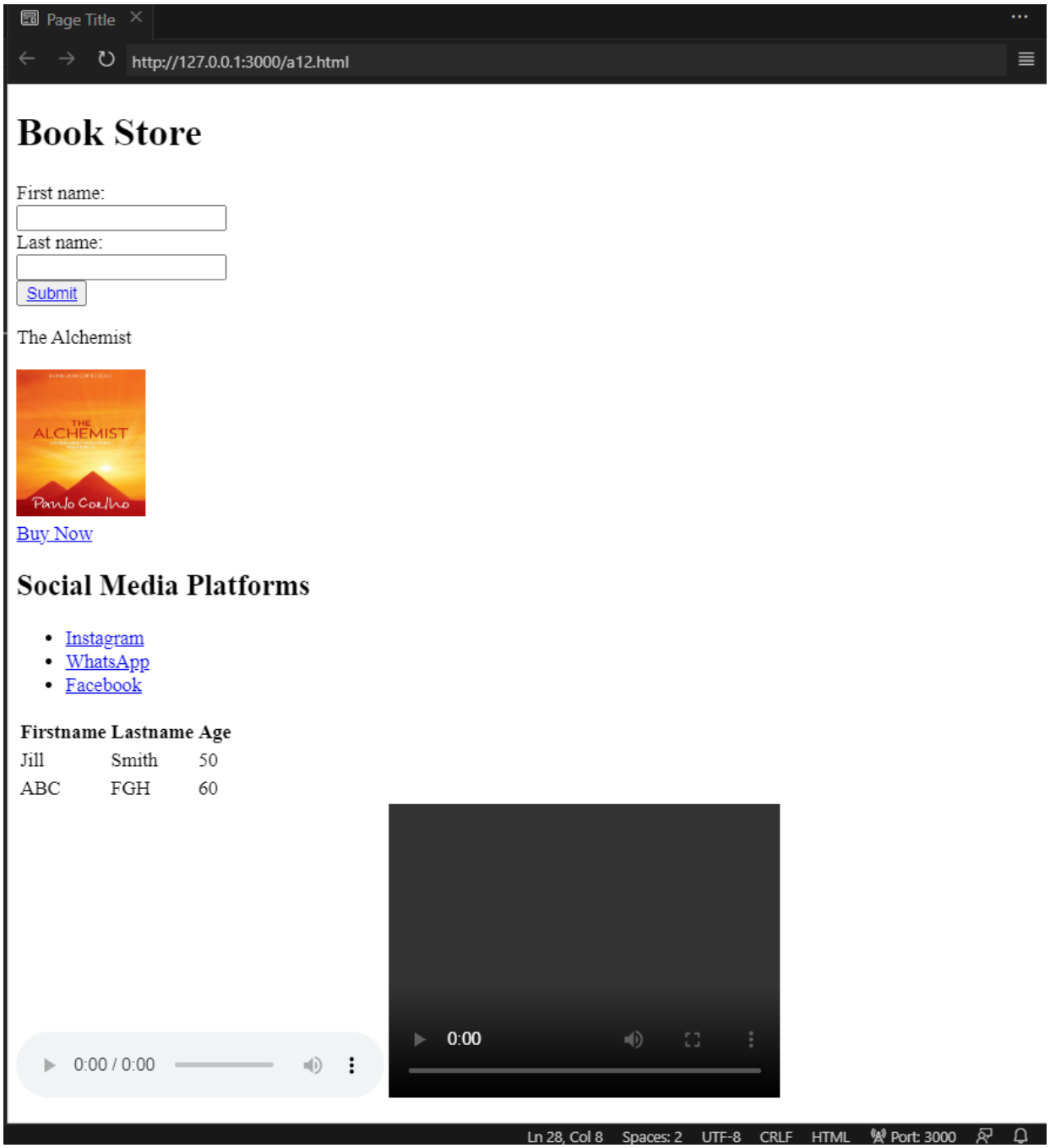
12. Multimedia:
- **Purpose: Embeds multimedia content like audio or video.**
- **Syntax: `<audio>...</audio>`, `<video>...</video>`.**

B. Program:

```
<!DOCTYPE html>
<html>
<head>
  <title>Page Title</title>
</head>

<body>

<h1>Book Store</h1>
<form>
    <label for="fname">First name:</label><br>
    <input type="text" id="fname" name="fname"><br>
    <label for="lname">Last name:</label><br>
    <input type="text" id="lname" name="lname"><br>
    <button type="button"><a href="/response.html">Submit</a></button>
</form>
<p>The Alchemist</p>
<img src="/book.jpg" alt="W3Schools.com"><br>
<a href="https://www.amazon.in/Alchemist-Paulo-Coelho/dp/8172234988">Buy Now</a>

<h2>Social Media Platforms</h2>
<ul>
    <li><a href="https://www.instagram.com/">Instagram</a></li>
```

```
    <li><a href="https://www.web.whatsapp.com">WhatsApp</a></li>
    <li><a href="https://www.fb.com/">Facebook</a></li>
</ul>

<table>
  <tr>
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Age</th>
  </tr>
  <tr>
    <td>Jill</td>
    <td>Smith</td>
    <td>50</td>
  </tr>
  <tr>
    <td>ABC</td>
    <td>FGH</td>
    <td>60</td>
  </tr>
</table>

<frameset cols="25%,75%">
  <frame src="frame_a.htm">
  <frame src="frame_b.htm">
</frameset>

<audio controls>
  <source src="sound.mp3" type="audio/mpeg">
  Your browser does not support the audio element.
</audio>

<video width="320" height="240" controls>
  <source src="video.mp4" type="video/mp4">
</video>

</body>
</html>
```

C. Output and findings:



D. Conclusion:

In this experiment, we focused on HTML and explored its key components, including elements, attributes, head, body, hyperlinks, formatting, images, tables, lists, frames, forms, and multimedia. By mastering these fundamental concepts, we gained the ability to create well-structured web pages with various content types, enhancing user experience and accessibility.