Web Development Laboratory (Manual)

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EXPERIMENT 1

Aim of the experiment

Create a basic skeleton of HTML page with <head>, <body> , <title> and <meta> tags, Document relevant information using comments, Insert CSS and JavaScript using <style> and <script> tags, Insert CSS and JavaScript using external files.

1 HTML5 Skeleton

1.1 Objective

To understand HTML tags to create a skeleton page

1.2 Introduction

The basic tages - <html>, <head>, <title> and <body> forms the basic skeleton structure of an HTML page, and without them a HTML page will not render correctly in a browser.

The Four Skeleton Tags There are four tags that need to be included in the skeleton. These are the structure tags, so called because they provide browsers with the basic structure of HTML documents. The four structure tags are:

The <html> tag starts an HTML file and tells browsers what kind of file this is.

The <head> tag includes information about the document such as the name of the file and other technical information like meat tags and style tags, which will be covered later in the tutorial.

The <title> tag is where you place the title of the web page. The title tag goes inside the head, between the opening and closing head tags.

The <body> is where you place all the information that will actually show up on the web page once it is online and opened in a browser. Whatever goes in the body of the HTML file is the content your readers will see when they visit your site.

There can be only one head, title, and body in an HTML document.

1.3 Code

```
1   <!DOCTYPE html>
2   <html>
3       <head>
4           <!-- Single line comment -->
5           <title>Welcome to Web Development Laboratory</title>
6       </head>
7       <body>
8           <!--
9               Multi-line comment
10          -->
11          <h1>Web Development is awesome</h1>
12          <p>Awesome people studies web development</p>
13      </body>
14  </html>
```

1.4 Explanation

- The `<!DOCTYPE html>` declaration defines this document to be HTML5
- The `<html>` element is the root element of an HTML page
- The `<head>` element contains meta information about the document
- The `<title>` element specifies a title for the document
- The `<body>` element contains the visible page content
- The `<h1>` element defines a large heading
- The `<p>` element defines a paragraph

2 HTML5 Head

2.1 Objective

To understand HTML tags for a HTML head

2.2 Introduction

The `<head>` element is a container for metadata (data about data) and is placed between the `<html>` tag and the `<body>` tag.

HTML metadata is data about the HTML document. Metadata is not displayed. Metadata typically define the document title, character set, styles, scripts, and other meta information.

The following tags describe metadata: `<title>`, `<style>`, `<meta>`, `<link>` and `<script>`.

2.3 Code

```html
<head>
  <title>Welcome to Web Development Laboratory</title>
  <meta charset="UTF-8">
  <meta name="author" content="Fifth S. Student">
  <meta name="description" content="Web Development is awesome!">
  <meta name="keywords" content="Lab, Awesome, JEC">
  <style>
    body {
        color: linen;
    }
  </style>
  <link rel="stylesheet" href="mystyle.css">
  <script>
    alert("Hello JEC!");
  </script>
  <script src="myScript.js"></script>
</head>
```

2.4 Explanation

- The `<title>` element
    - defines a title in the browser tab
    - provides a title for the page when it is added to favorites
    - displays a title for the page in search engine results
- The `meta charset` define the character set used
- The `meta description` define a description of your web page for search engine, social media
- The `meta keywords` define keywords for search engines

- The `meta author` define the author of a page
- The `<style>` element is used to define style information for a single HTML page
- The `<link>` element is used to link to external style sheets
- The `<script>` element is used to define client-side JavaScript
  - either by writing directly in the head
  - or by referencing to an external JavaScript file