COMSATS University Islamabad (CUI), Lahore Campus

Department of Electrical & Computer Engineering

CSC336 – Web Technologies

Lab Manual v 1.0.1

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Name:		Registration No:	
Program:		**Batch:**	
Semester:			

Laboratory 01

To reproduce web page with table using HTML Tags

<u>INTRODUCTION TO **HTML** TAGS WITH TABLES</u>

1 Objective

The purpose of this lab is to give the first practical exposure of HTML webpage development, where they will learn about HTML page structure and use of Basic, Link, List and Table HTML Element.

2 Introduction to HTML

2.1 HTML: The Markup Language

Hyper Text Markup Language (HTML) is a language for describing web pages. It is a markup language instead of programming language because it uses specialized syntax to define structure and formatting of the text document.

2.2 HTML Document

An HTML document is a collection of (nested) HTML elements which all together define the format and contents of the final document/web page.

2.3 HTML ELEMENT

Parts of an HTML Element are HTML Tag(s), Content and Attribute (s), as showin in Figure 2.1.

2.4 HTML Page Structure

Figure 2.2 depicts the structure of an HTML page.

2.5 User Agent

User agent (UA) is an application which provides an interface to interact with the web sites. It is normally a web browser in your operating system, namely Chrome, Edge, or Firefox. The UA reads HTML document(s) and renders user interface (UI) of web page. The browser uses HTML tags and interprets the Content of the HTML Element and then renders accordingly.
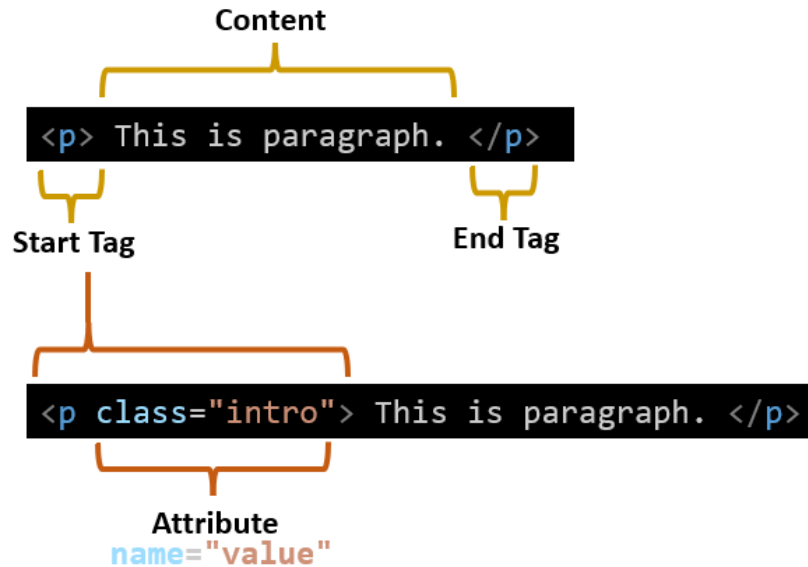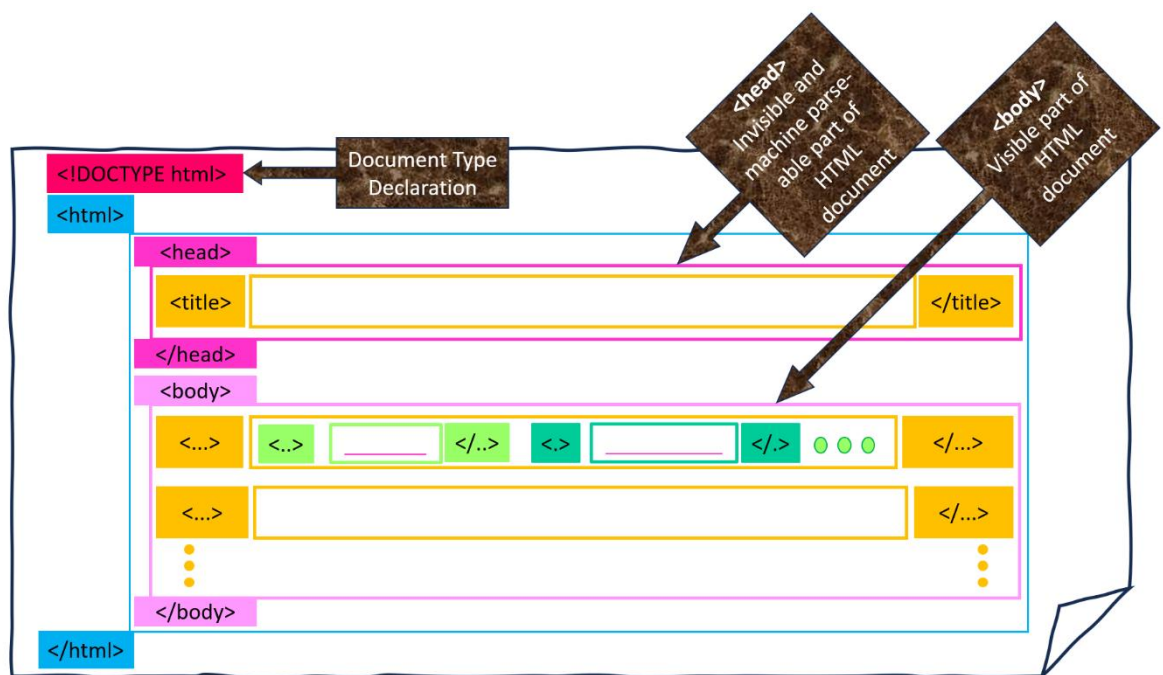
Figure 2.1: Parts of an HTML Element

Figure 2.2: HTML Page Structure

2.6 Integrated Development Environment

An integrated development environment (IDE) is a software application that provides basic facilities for software development. Minimal facility includes the provision of source-code editor; however, industry standard IDEs also at least provide build automation tools and a debugger.

Among various IDEs available in the software developer's marker, the suggested IDE in this course is Visual Studio Code (VS Code).

To facilitate software developers, VS Code offers the mechanism to install extension (a software patch) in the VS Code which enhances developers experience of programming. To enhance the performance, please also install an extension namely "Live Server" in the IDE.

2.7 Usage of Important HTML Tags

2.7.1 Insert heading in the document

```
<h1>The New Restaurant</h1>
```

2.7.2 Creating lists

```
<h4>CUI Campuses</h4>
<ul>
    <li>Islamabad</li>
    <li>Lahore</li>
    <li>Abbotabad</li>
    <li>and many more</li>
</ul>

<h4>Bachelor Degree programs in ECE</h4>
<ol>
    <li>Bachelor of Science in Computer Engineering</li>
    <li>Bachelor of Science in Electrical Engineering</li>
</ol>
```

2.7.3 Creating Tables

```
<table>
 <tr>
   <td>Sr. No. </td>
   <td>Currency </td>
   <td>Rate</td>
 </tr>
 <tr>
   <td>1</td>
   <td>USD</td>
   <td>300</td>
 </tr>
 <tr>
   <td>2</td>
   <td>AUD</td>
   <td>180</td>
 </tr>
```

```
        <tr>
            <td>3</td>
            <td>EURO</td>
            <td>323</td>
        </tr>
    </table>
```

2.7.4 Adding Footer to Table

```
    <tfoot>
            <tr>
                <td>* Currency rates from abc exchange</td>
            </tr>
    </tfoot>


    <table>
      <caption>
        Front-end web developer course 2021
      </caption>
      <thead>
        <tr>
          <th scope="col">User</th>
          <th scope="col">Programming Language</th>
          <th scope="col">Years of Experience</th>
        </tr>
      </thead>
      <tbody>
        <tr>
          <th scope="row">Ali</th>
          <td>JavaScript</td>
          <td>12</td>
        </tr>
        <tr>
          <th scope="row">Shan</th>
          <td>C++</td>
          <td>15</td>
        </tr>
        <tr>
          <th scope="row">Kumar</th>
          <td>Java</td>
          <td>10</td>
        </tr>
        <tr>
          <th scope="row">Imran</th>
          <td>PHP</td>
```

```
        <td>19</td>
      </tr>
    </tbody>
    <tfoot>
      <tr>
        <th scope="row" colspan="2">* Expertise: PHP</th>
        <td>33</td>
      </tr>
    </tfoot>
  </table>
```

3 Activity

In the following tasks, use HTML only. Do not use cascading style sheets (CSS).

3.1 Task 1

Create a webpage to display the following table in the web page.

List of Enrolled Good Standing Students				
Roll No	**Name**	**Semester**	**CGPA**	**Enrolled Subjects**
BCE-301	Aaqib	5	3.6	• Embedded Systems Workshop • Digital System Design • Web Technologies
BCE-527	Batool Zahra		3.7	• Computer Organization and Architecture • Operating system • Web Technologies
BCE-225	Cinderella	7	3.5	• Machine Learning • Digital Image Processing • Web Technologies
Note: This table provides details of enrolled subjects in the current semester.				

3.2 Task 2

Extend the example in section 2.7 to display the following table in the web page.

4 Rubric for Lab Assessment

The student performance for the assigned task during the lab session was:			
Excellent	The student completed assigned tasks without any help from the instructor and showed the results appropriately.	4	
Good	The student completed assigned tasks with minimal help from the instructor and showed the results appropriately.	3	
Average	The student could not complete all assigned tasks and showed partial results.	2	
Worst	The student did not complete assigned tasks.	1	

Instructor Signature: _____ **Date:** _____