TRINITY INTERNATIONAL SS & COLLEGE

Dillibazar Height, Kathmandu, Nepal



LAB REPORT # 6: Web Technology

(COMPUTER SCIENCE)

SUBMITTED BY:	SUBMITTED TO:	
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GRADE: XI (MC1)		
DATE : [18 th April 2023]	PRAVEEN KOIRALA	

Faculty of Computer Science

KATHMANDU, NEPAL 2022

A Lab Work On

Web Technology

Submitted as a partial fulfillment of requirement of the curriculum of GRADE-XI (Computer Science) under NEB

Submitted By:

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Under Supervision Of

PRAVEEN KOIRALA

Date:

[18th April 2023]



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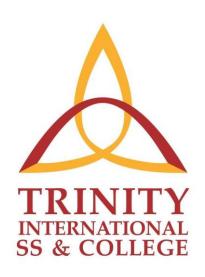
Last but not the least I would like to thank my parents, family members, friends, this College and other who help me for their guidance and support.

[Prashim Timsina]

[18th April 2023]

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LAB WORK # 1: Web Technology (HTML & CSS)

(COMPUTER SCIENCE)

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2. Objective

The main objectives of the lab work are as follows:

- 1. To understand HTML Tags and to create a skeleton page.
- 2. To understand HTML tags for Heading.
- 3. To understand HTML tags for Paragraph.
- 4. To understand HTML Text, Align Style.
- 5. To understand HTML Text Style.
- 6. To understand HTML Fonts attribute.
- 7. To understand HTML Marquee tag.
- 8. To understand HTML List.
- 9. To understand HTML Anchor element.
- 10.To understand HTML image element.
- 11. To understand HTML Table element.
- 12. To understand HTML Table element attributes.
- 13. To understand HTML Table element and its attributes.
- 14. To understand HTML Form Text Input control.
- 15. To understand HTML Form and different control.
- 16. To understand and add CSS to HTML Element.

3. Theoretical Background

HTML and CSS are two essential components of web development. HTML stands for Hypertext Markup Language, which is used to create web pages and applications. CSS stands for Cascading Style Sheets, which is used to define the visual appearance and layout of HTML documents.

HTML is a markup language that consists of a set of tags and attributes. These tags are used to structure content and define its meaning. HTML tags are surrounded by angle brackets, and each tag has a specific purpose. For example, the <head> tag is used to contain metadata about the page, while the tag is used to define a paragraph.

CSS is used to control the presentation of HTML documents. It is used to specify the visual style of HTML elements, including their layout, fonts, colors, and backgrounds. CSS consists of a set of rules that define how HTML elements should be displayed. These rules can be defined inline, in the head section of the HTML document, or in a separate external file.

HTML and CSS work together to create a visually appealing and user-friendly website. HTML provides the structure and content of the page, while CSS provides the presentation and layout. By separating the content and presentation, HTML and CSS enable developers to create more accessible, maintainable, and efficient web pages.

Web developers use a variety of tools and techniques to create HTML and CSS documents. Text editors such as Notepad++ and Sublime Text are commonly used to create and edit HTML and CSS files. Integrated development environments (IDEs) such as Visual Studio Code and Adobe Dreamweaver provide more advanced features for web development, including code completion, debugging, and version control.

In addition to HTML and CSS, web developers use a variety of other technologies to create dynamic and interactive web applications. JavaScript is a programming language used to add interactivity and functionality to web pages. Frameworks and libraries such as React, Angular, and Vue.js provide pre-built components and tools for building web applications. Databases and server-side technologies such as MySQL, Node.js, and PHP are used to store and process data on the server side.

Overall, HTML and CSS are the foundational building blocks of web development. They enable developers to create web pages and applications that are both functional and visually appealing. As the web continues to evolve, new technologies and standards will emerge, but HTML and CSS will remain essential components of the web development stack.

4. Work Done

1. HTML page to view following lines in browser. 'We are learning web page.'

Source Code:

Output:

We are learning web page.

2. To know about meta tags: meta charset, meta name(any three/four)

Source Code:

```
<!DOCTYPE html>
      <html>
      <head>
            <meta charset="UTF-8">
            <meta name="viewport" content="width=device-width, initial-scale=1.0">
            <meta name="description" content="This is a brief description of my</pre>
      webpage.">
            <meta name="keywords" content="HTML, CSS, JavaScript, web</pre>
      development">
            <title>My Webpage</title>
      </head>
      <body>
            <!-- Your webpage content here -->
      </body>
      </html>
Output: (No output)
```

3. HTML page with body attributes: top margin, bottom margin, bgcolor, text etc.

Source Code:

Output:

Body Attributes

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Sed non risus. Suspendisse lectus tortor, dignissim sit amet, adipiscing nec, ultricies sed, dolor.

4. HTML page to set a body background image using attribute background.

Source Code:

Output:

Background Image

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Sed non risus. Suspendisse lectus tortor, dignissim sit amet, adipiscing nec, ultricies sed, dolor.

5. HTML page to insert any two images using tag with attributes width, height, alt, title etc.

Source Code:

Output:

Images

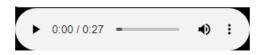


6. HTML page to play am audio sound using 'object' tag.

Source Code:

Output:

Audio



7. HTML page to play an audio file using tag 'audio' and attributes 'src',type.

Source Code:

Output: (same as above)

8. HTML page to know about different heading tags(h1,h2,h3,h4,h5 and h6) with attributes align.

Source Code:

Output:

Heading 1

Heading 2

Heading 3

Heading 4

Heading 5

Heading 6

- 9. HTML page to know about following formatting tags.
- B,I, U, sup, sub, strike, del, mark, strong, em, small, big, ins, pre etc

Source Code:

```
<!DOCTYPE html>
<html>
<head>
     <title>Formatting tags example</title>
</head>
<body>
     <b>Bold text</b><br>
     <i>Italic text</i><br>
     <u>Underline text</u><br>
     <sup>Superscript text</sup><br>
     <sub>Subscript text</sub><br>
     <strike>Strike text</strike><br>
     <del>Deleted text</del><br>
     <mark>Highlighted text</mark><br>
     <strong>Strong text</strong><br>
     <em>Emphasized text</em><br>
     <small>Small text</small><br>
     <br/>big>Big text</br>
     <ins>Inserted text</ins><br>
     Preformatted text
</body>
</html>
```

Output:

Bold text

Italic text

Underline text

Superscript text

Subscript text

Strike text

Deleted text

Highlighted text

Strong text

Emphasized text

Small text

Big text

Inserted text

Preformatted text

10. HTML page to know about 'font' tag with attributes size, font face, color etc.

Source Code:

Output:

This is a red Arial text with size 5

This is a blue Times New Roman text with size 3 This is a green Verdana text with size 2

11. HTML page to be familiar with tag 'basefont' and attributes color, size, face etc.

The <basefont> tag is deprecated in HTML5 and should not be used.

12. HTML page to be familiar with tag 'p' and attributes align and values left, right ,center etc. Use 'br' tags.

Source Code:

Output:

This is a left-aligned paragraph. This is the second line.

This is a center-aligned paragraph.

This is the second line.

This is a right-aligned paragraph.

This is the second line.

13. HTML PAGE TO COMMENT CERTAIN PART.

Source Code:

Output: (No Output)

14. HTML PAGE TO know about 'marquee' tag with attributes behavior, direction, bgcolor, height, loop, scroll amount, scrolldelay, vspace, width.

Source Code:

Output:

- 15. Use following list to create different numbering and bulleting styles.
- 1) For definition list. 2) For ordered list(with different attributes start, type)
- 3) For unordered list(""). 4) For nested list(using ol,ul)

Source Code:

```
<!DOCTYPE html>
<html>
<head>
    <title>List Examples</title>
</head>
<body>
     <h2>Definition List Example</h2>
     < dl >
         <dt>HTML</dt>
         <dd>Hyper Text Markup Language</dd>
         <dt>CSS</dt>
         <dd>Cascading Style Sheets</dd>
         < dt > JS < / dt >
         <dd>JavaScript</dd>
    </dl>
    <h2>Ordered List Example</h2>

    start="3" type="A">

         First Item
         Second Item
         Third Item
         Fourth Item
     <h2>Unordered List Example</h2>
     <u1>
          Item One
         Item Two
         Item Three
    <h2>Nested List Example</h2>
     <ol>
         Main Item 1
              <ul>
                    Sub Item 1
                    Sub Item 2
```

```
Main Item 2
Main Item 3

Sub Item 1
Sub Item 2
Sub Item 3
Sub Item 3

</body>
</html>
```

Output:

Definition List Example

HTML
Hyper Text Markup Language
CSS
Cascading Style Sheets
JS
JavaScript

Ordered List Example

- C. First Item
- D. Second Item
- E. Third Item
- F. Fourth Item

Unordered List Example

- Item One
- Item Two
- · Item Three

Nested List Example

- 1. Main Item 1
 - o Sub Item 1
 - o Sub Item 2
- 2. Main Item 2
- 3. Main Item 3
 - 1. Sub Item 1
 - 2. Sub Item 2
 - 3. Sub Item 3

16. HTML page to know about 'address' tag.

Source Code:

```
<!DOCTYPE html>
<html>
<head>
<title>Address Tag Example</title>
</head>
<body>
<h1>My Contact Information</h1>
<address>
Name: John Doe
Email: johndoe@example.com
Phone: 123-456-7890
</address>
</body>
</html>
```

Output:

My Contact Information

Name: John Doe

Email: johndoe@example.com

Phone: 123-456-7890

17. HTML page to be familiar with hyperlinks. Also talk about different types(local/internal, external)

Source Code:

```
<!DOCTYPE html>
<html>
<head>
<title>Local Link Example</title>
</head>
<body>
<h1>Local Link Example</h1>
<a href="about.html">About Us</a>
<a href="https://www.example.com">About Us</a>
</body>
</html>
```

Output:

Local Link Example

About Us About Us

18. HTML page to create tables with different attributes such as align, bgcolor,border,bordercolor,cellpadding,cellspacing,width,height.rowspan,colspan. Also use tags th,tr,td ,caption etc.

Source Code:

```
<!DOCTYPE html>
<html>
<head>
 <title>Table Example</title>
</head>
<body>
 <table border="1" cellpadding="5" cellspacing="0" width="80%" align="center"
bgcolor="#efefef">
  <caption><strong>Employee Details</strong></caption>
  >
  Personal Information
  Contact Information
  Name:
  John Doe
  Age:
  30
  Email:
john.doe@example.com<br/>br>Phone: 123-456-7890
  Gender:
  Male
  Address:
  123 Main St
  </body>
</html>
```

Output:

Employee Details

Personal Information		Contact Information	
Name:	John Doe	Contact Information	
Age:	30		
Gender:	Male	Email: john.doe@example.com Phone: 123-456-7890	
Address:	123 Main St		

19. To be familiar with form tag with different elements:

input type:

textbox,radio,checkbox,password,file,button,submit,reset,textarea,select.optgroup,fieldset,label,email,color etc

Source Code:

```
<!DOCTYPE html>
<html>
<head>
     <title>Form Elements</title>
</head>
<body>
     <form>
           <label for="name">Name:</label>
           <input type="text" id="name" name="name"><br>
           <label for="email">Email:</label>
           <input type="email" id="email" name="email"><br>
           <label for="password">Password:</label>
           <input type="password" id="password" name="password"><br>
           <label for="file">File:</label>
           <input type="file" id="file" name="file"><br>
           <label for="checkbox">Checkbox:</label>
           <input type="checkbox" id="checkbox" name="checkbox"><br>
           <label for="radio">Radio:</label>
           <input type="radio" id="radio" name="radio"><br>
           <label for="submit">Submit:</label>
           <input type="submit" id="submit" name="submit"><br>
           <label for="reset">Reset:</label>
           <input type="reset" id="reset" name="reset"><br>
           <label for="button">Button:</label>
           <input type="button" id="button" name="button"><br>
           <label for="textarea">Textarea:</label>
           <textarea id="textarea" name="textarea"></textarea><br>
           <label for="select">Select:</label>
```

```
<select id="select" name="select">
                        <option value="option1">Option 1</option>
                        <option value="option2">Option 2</option>
                        <option value="option3">Option 3</option>
                  </select><br>
                  <label for="optgroup">Optgroup:</label>
                  <select id="optgroup" name="optgroup">
                         <optgroup label="Group 1">
                               <option value="option1">Option 1</option>
                               <option value="option2">Option 2</option>
                         </optgroup>
                         <optgroup label="Group 2">
                               <option value="option3">Option 3</option>
                               <option value="option4">Option 4</option>
                         </optgroup>
                  </select><br>
                  <fieldset>
                         <le>egend>Legend</legend>
                         <label for="fieldset">Fieldset:</label>
                         <input type="text" id="fieldset" name="fieldset"><br>
                  </fieldset>
            </form>
      </body>
      </html>
Output:
Name:
Email:
Password:
File: Choose File No file chosen
Checkbox:
Radio: O
Submit: Submit
Reset: Reset
Button:
Textarea:
Select: Option 1 🕶
Optgroup: Option 1
  -Legend-
  Fieldset:
```

20. Working with frameset tag and attributescols, rows.

Creating different columns, rows and creating links.

Working with iframe tag.

Source Code:

Output:



Sorry!

We can't seem to find the resource you're looking for.

Please check that the Web site address is spelled correctly.
Or go to our <u>home page</u>, and use the menus to navigate to a specific section.



Sorry!

We can't seem to find the resource you're looking for.

Please check that the Web site address is spelled correctly.
Or go to our <a href="https://www.nome.go.new.

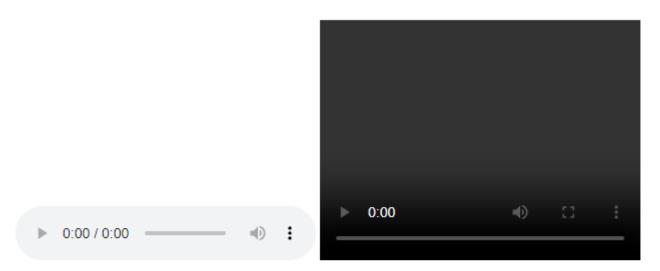
21.1 Audio, video, object, embed, etc. with attributes src, data, type etc

Source Code:

```
<!DOCTYPE html>
<html>
<head>
      <title>Audio, Video, Object, and Embed Example</title>
</head>
<body>
      <h1>Audio, Video, Object, and Embed Example</h1>
      <!-- Audio Tag -->
      <audio controls>
            <source src="audio.mp3" type="audio/mpeg">
            <source src="audio.ogg" type="audio/ogg">
            Your browser does not support the audio element.
      </audio>
      <!-- Video Tag -->
     <video width="320" height="240" controls>
            <source src="video.mp4" type="video/mp4">
            <source src="video.ogg" type="video/ogg">
            Your browser does not support the video element.
      </video>
      <!-- Object Tag -->
     <object type="application/pdf" data="document.pdf" width="100%"</pre>
height="500">
            Alternative text for the object.
            <a href="document.pdf">Download the PDF file.</a>
      </object>
      <!-- Embed Tag -->
     <embed src="animation.swf" type="application/x-shockwave-flash"</pre>
width="550" height="400">
</body>
</html>
```

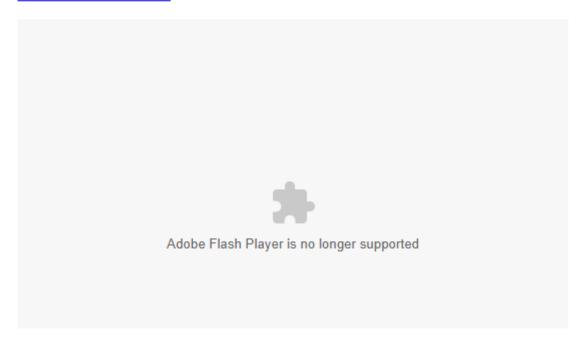
Output:

Audio, Video, Object, and Embed Example



Alternative text for the object.

Download the PDF file.



21.2 canvas tag with attributes id, width, height etc.

Source Code:

```
<!DOCTYPE html>
<html>
<head>
<title>Canvas Example</title>
</head>
<body>
<canvas id="myCanvas" width="400" height="400"></canvas>

<script>
const canvas = document.getElementById('myCanvas');
const ctx = canvas.getContext('2d');

ctx.fillStyle = 'red';
ctx.fillRect(50, 50, 100, 100);
</script>
</body>
</html>
```

Output:

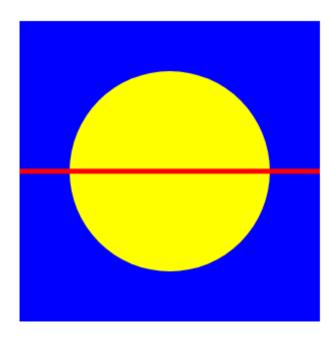


21.2 'svg' tag with attributes height, width.

[Note: Let's give any two examples of canvas and svg.]

Source Code:

Output:



Source Code:

```
<!DOCTYPE html>
<html>
<head>
      <title>My HTML/CSS Example</title>
      <style type="text/css">
            /* CSS introduction */
            h1 {
                   color: blue;
                   text-align: center;
            /* CSS working methods */
            /* inline */
            span {
                   font-weight: bold;
             }
            /* internal */
            style {
                   color: red;
            /* external */
            /* style.css file */
            /* CSS syntax with selectors */
            /* id */
            #main {
                   background-color: yellow;
                   border: 1px solid black;
                   padding: 10px;
             }
            /* element */
            p {
                   margin-bottom: 20px;
            /* class */
            .intro {
                   font-size: 18px;
             }
```

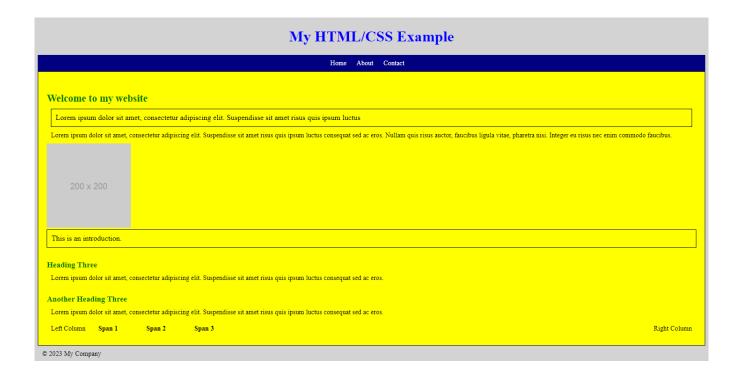
```
/* grouping */
h2, h3 {
      color: green;
      margin-top: 30px;
      margin-bottom: 10px;
}
/* universal */
* {
      box-sizing: border-box;
/* CSS comments */
/* this is a comment */
/* Styling the html page with CSS */
/* Use different elements with attributes */
/* Height, width */
img {
      height: 200px;
      width: 200px;
}
/* background */
body {
      background-color: lightgray;
}
/* text-align */
p {
      text-align: justify;
/* font size */
h1 {
      font-size: 36px;
/* borders */
.intro {
      border: 2px solid black;
      padding: 10px;
/* margin */
```

```
p {
      margin: 10px;
/* padding */
#main {
      padding: 20px;
}
/* float */
.left {
      float: left;
      margin-right: 10px;
}
.right {
      float: right;
      margin-left: 10px;
/* navigation */
nav {
      background-color: navy;
      color: white;
      padding: 10px;
      text-align: center;
}
nav a {
      color: white;
      text-decoration: none;
      margin-right: 20px;
}
/* text decoration */
a {
      text-decoration: none;
      color: blue;
}
a:hover {
      text-decoration: underline;
/* inline/block */
span {
```

```
width: 100px;
                 background-color: yellow;
                 padding: 10px;
                 margin-right: 10px;
            }
           span:last-child {
                 margin-right: 0;
            }
     </style>
</head>
<body>
      <header>
           <h1>My HTML/CSS Example</h1>
            <nav>
                 <a href="#">Home</a>
                 <a href="#">About</a>
                 <a href="#">Contact</a>
           </nav>
      </header>
      <main>
           <div id="main">
                 <h2>Welcome to my website</h2>
                 Lorem ipsum dolor sit amet, consectetur
adipiscing elit. Suspendisse sit amet risus quis ipsum luctus
                  Lorem ipsum dolor sit amet, consectetur adipiscing elit.
Suspendisse sit amet risus quis ipsum luctus consequat sed ac eros. Nullam quis
risus auctor, faucibus ligula vitae, pharetra nisi. Integer eu risus nec enim
commodo faucibus.
                 <img src="https://via.placeholder.com/200" alt="placeholder</pre>
image">
                 <div class="intro">This is an introduction.</div>
                  <h3>Heading Three</h3>
                 Lorem ipsum dolor sit amet, consectetur adipiscing elit.
Suspendisse sit amet risus quis ipsum luctus consequat sed ac eros.
                 <h3>Another Heading Three</h3>
                 Lorem ipsum dolor sit amet, consectetur adipiscing elit.
Suspendisse sit amet risus quis ipsum luctus consequat sed ac eros.
                 <span>Span 1</span>
                 <span>Span 2</span>
                 <span>Span 3</span>
                 <div class="left">
                        Left Column
                 </div>
```

display: inline-block;

Output:



CONCLUSION

In conclusion, the lab report has explored the fundamentals of HTML and CSS, which are two critical components of web development. HTML is the markup language used to create the structure and content of web pages, while CSS is used for styling and presentation. The report has covered a wide range of topics, from basic tags and attributes to more advanced concepts like forms, tables, and multimedia elements.

Throughout the lab, we have learned how to use HTML to create a well-structured and accessible website. We have also seen how CSS can be used to enhance the design and visual appeal of web pages, including techniques like layout, typography, and color schemes. By applying these principles, we can create websites that are not only functional but also aesthetically pleasing and engaging for users.

Overall, this lab has provided us with a solid foundation in HTML and CSS, which are essential skills for anyone interested in web development. With continued practice and exploration, we can build on this foundation and create increasingly complex and sophisticated web projects.