



Goldengate International Collage

Battishputali, Kathmandu



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Web Technology:- Web technology refers to the tools and techniques used to create, manage, and maintain websites. It includes programming languages, frameworks, libraries, and protocols that allow web pages to function. Web technology enables communication between browsers and servers, making content accessible across devices. Web technology is also called Client-server Technology.

Q) Five Programming languages and Framework for web development:-

Programming languages:-

- 1) HTML: It is markup languages used for basic structure of web pages.
- 2) CSS: CSS is used to define styles for web pages, including the design layout and variations in display for different devices and screen sizes.
- 3) JavaScript: JavaScript is a programming language commonly used to make web pages interactive. It runs in web browsers and can control webpage ~~eat~~ content, handle user inputs.

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- 3) JavaScript: JavaScript is a programming language commonly used to make web pages interactive. It runs in web browsers and can control webpage content, handle user inputs.

~~4) React.js:-~~

4) Python:- It is used by the Django framework and used in a lot of mathematical calculation.

5) PHP:- It ^{is used} ~~adds~~ by word press. in ~~your~~ web pages.

Frameworks:-

1) Node.js:- A server-side java script framework.

2) Ruby on Rails:- A full-stack framework built using ruby.

3) React.js:- A frontend framework

4) Ionic:- A mobile framework.

5) Django:- A full-stack framework built using python.

6) Libraries and database used in web development:

Libraries:- JQuery, React, Angular, Vue.js

Data base:- MySQL, MongoDB, Firebase, SQLite.

Q) CMS:- A (CMS) Content Management System is software that ~~not~~ allows users to create, manage, and modify content on a website without coding knowledge.

Ex: Wordpress, Joomla, Drupal

Q) HTML and its Structure:- HTML (HyperText Markup Language) is the standard language for creating web pages. It uses tags to define elements like heading, paragraphs, and links.

HTML structure:

```
<html>
<head>
<title>My first page</title>
</head>
<body>
<h1>Hello, World!</h1>
<p>This is a simple HTML Page.</p>
</body>
</html>
```

Q) Features of HTML:

- ① It is easy to learn and simple for understanding.
- ② It is platform-independent.
- ③ It supports multimedia (audio, video and images)
- ④ It supports link and navigation.
- ⑤ It is flexible and extensible with CSS and javascript.

8) → HTML forms and 10 form elements with syntax:-

→ HTML forms collect user input and send data to a server.

10 forms Elements:

1. `<input type="text">` — Text input
2. `<input type="password">` — Password input
3. `<input type="email">` — Email input
4. `<textarea>` — Multi-line text input.
5. `<select>` — Drop down list
6. `<option>` — Options in a dropdown
7. `<input type="radio">` — Radio button
8. `<input type="checkbox">` — Check box
9. `<button>` — Button
10. `<label>` — Label for element

9) Types of tags in HTML:

1.) Paired tags: Require both ~~and~~ opening and closing tag.

ex:- `<P>Hello</P>`

2.) Unpaired tags: Don't Require a closing tag.

ex: ``

9) HTML layout:- HTML layout structures the content on a page using elements like:

- `<header>` — Top section of the page
- `<nav>` — Navigation bar
- `<main>` — Main content
- `<section>` — Grouped section
- `<footer>` — Bottom section

Q) CSS and Its Usage:

CSS: CSS (Cascading style sheets) style HTML elements, controlling layout, colors, fonts, spacing, etc.

Ex

```
body {  
  background-color: #f0f0f0;  
  font-family: Arial, sans-serif;  
}
```

Q) Types of CSS with examples:

1. Inline CSS: It is directly used with a tag within element

ex

```
<p style="color:red;">This is red text  
</p>
```

2. Internal CSS: It is used in `<style>` tags ^{between} `<head>` and `</head>`

ex

```
<style>  
h2 {color:blue;}  
</style>
```

3. External CSS: It is used to link a style sheet externally

ex:

```
<link rel="stylesheet" href="style  
sheet.css">
```

Q) Define these terms:-

- i) Webpage:- A single document on the internet typically written in HTML. A web page most contain multimedia and most have unique URL, through the page is accessible.
 - ii) Website:- It is basically the collection of webpage and multimedia which are interlinked to each other in same folder.
 - iii) Client-side:- Refers to operations or code that run on the user device.
 - iv) Server-side:- A server is where the application code is stored and managed.
 - v) Front-end:- The part of website or web application that users directly interact with.
 - vi) Back-end:- The behind-the-scene part of the website where it is managed and operated.
- Web Hosting:- A service that provides the infrastructure and storage needed to publish a website on the internet.

Demonstrate Of Heading Tags And Attributes

```
<html>
<body>
<h1> Demonstrate Of Heading Tags and Attributes</h1>
<h1 style="color: blue;">This is an H1 Heading</h1>
<h2 style="color: green;">This is an H2 Heading</h2>
<h3 style="color: purple;">This is an H3 Heading</h3>
<h4 style="color: orange;">This is an H4 Heading</h4>
<h5 style="color: red;">This is an H5 Heading</h5>
<h6 style="color: brown;">This is an H6 Heading</h6>
</body>
</html>
```

Demonstrate Of Heading Tags and Attributes

This is an H1 Heading

This is an H2 Heading

This is an H3 Heading

This is an H4 Heading

This is an H5 Heading

This is an H6 Heading

Font Tags

```
<html>
<body>
<h1> Demonstrate Font Tag and Its Attributes</h1>
<p><font face="Arial" color="blue" size="4">This text is in Arial,
blue, and size 4.</font></p>
<p><font face="Courier New" color="red" size="5">This text is in
Courier New, red, and size 5.</font></p>

</body>
</html>
```

Demonstrate Font Tag and Its Attributes

This text is in Arial, blue, and size 4.

This text is in Courier New, red, and
size 5.

Demonstration Of Different Types Of List Tags

```
<html>
<body>
<h1>Demonstrate Different Types of List Tags</h1>
<h2>Ordered List</h2>
<ol>
  <li>Dipendra</li>
  <li>Boss</li>
  <li>Mr KillBoy</li>
  <li>SANTOSH</li>
</ol>
<h2>Unordered List</h2>
<ul>
  <li>MP40, M4A1 III</li>
  <li>MP40, AK47</li>
  <li>UMP, AK47</li>
  <li>M1887, USP</li>
</ul>
<h2>Definition List</h2>
<dl>
  <dt>HTML</dt>
  <dd>HyperText Markup Language</dd>
  <dt>CSS</dt>
  <dd>Cascading Style Sheets</dd>
</dl>
</body>
</html>
```

Demonstrate Different Types of List Tags

Ordered List

1. Dipendra
2. Boss
3. Mr KillBoy
4. SANTOS

Unordered List

- MP40, M4A1 III
- MP40, AK47
- UMP, AK47
- M1887, USP

Definition List

HTML

HyperText Markup Language

CSS

Cascading Style Sheets

Truth Table For “And” Gate

```
<html>
<body>
<h1>Create a Truth Table for an AND Gate</h1>
<table style="width:20%" border="2">
  <tr>
    <th style="width:10%">A</th>
    <th style="width:10%">B</th>
    <th style="width:20%">A  AND  B</th>
  </tr>
  <tr >
    <td>0</td>
    <td>0</td>
    <td>0</td>
  </tr>
  <tr>
    <td>0</td>
    <td>1</td>
    <td>0</td>
  </tr>
  <tr>
    <td>1</td>
    <td>0</td>
    <td>0</td>
  </tr>
  <tr>
    <td>1</td>
    <td>1</td>
    <td>1</td>
  </tr>
</table>

</body>
</html>
```

Create a Truth Table for an AND Gate

A	B	A AND B
0	0	0
0	1	0
1	0	0
1	1	1

Simple Bill

```
<html>
<body>
<h1>Simple Bill</h1>
<table style="width:90%" border="5">
  <tr>
    <th style="width:20%">Item</th>
    <th style="width:20%">Quantity</th>
    <th style="width:30%">Unit Price </th>
    <th style="width:30%">Total Price </th>
  </tr>
  <tr>
    <td>MP40</td>
    <td>2</td>
    <td>1900</td>
    <td>3800</td>
  </tr>
  <tr>
    <td>M4A1 III</td>
    <td>1</td>
    <td>2500</td>
    <td>2500</td>
  </tr>
  <tr>
    <td>M1887</td>
    <td>1</td>
    <td>1900</td>
    <td>1900</td>
  </tr>
  <tr>
    <td>AK47</td>
    <td>2</td>
    <td>1600</td>
    <td>3200</td>
  </tr>
</table>
</body>
</html>
```

```

    </tr>
    <tr>
        <td>UMP</td>
        <td>1</td>
        <td>1500</td>
        <td>1500</td>|
    </tr>
    <tr>
        <td>USP</td>
        <td>1</td>
        <td>0</td>
        <td>0</td>
    </tr>
    <tr class="total-row">
        <td colspan="3">Total Amount</td>
        <td>12900</td>
    </tr>
</table>

</body>
</html>

```

Simple Bill

Item	Quantity	Unit Price	Total Price
MP40	2	1900	3800
M4A1 III	1	2500	2500
M1887	1	1900	1900
AK47	2	1600	3200
UMP	1	1500	1500
USP	1	0	0
Total Amount			12900

Login Form

```
<html>
<body>
<h2>User Information Form</h2>
<form>
  <label for="username">UserName:</label>
  <input type="text" id="username" name="username"><br><br>
  <h3>Gender:</h3>
  <input type="radio" id="male" name="gender" value="male">
  <label for="male">Male</label><br>
  <input type="radio" id="female" name="gender" value="female">
  <label for="female">Female</label><br>
  <input type="radio" id="other" name="gender" value="other">
  <label for="other">Other</label><br><br>
  <h3>Vehicles:</h3>
  <input type="checkbox" id="device1" name="device1" value="Mobile">
  <label for="device1">I have a Mobile</label><br>
  <input type="checkbox" id="device2" name="device2" value="Tab">
  <label for="device2">I have a Tab</label><br>
  <input type="checkbox" id="device3" name="device3" value="Laptop" checked>
  <label for="device3">I have a Laptop</label><br>
  <input type="checkbox" id="device4" name="device4" value="Desktop">
  <label for="device4">I have a Desktop</label><br><br>
  <h3>Comments:</h3>
  <label for="comments">TextArea:</label>
  <textarea id="comments" cols="50" rows="5">
This is where the user can enter text...
  </textarea><br><br>
  <button type="submit">Submit</button>
  <button type="reset">Reset</button>
</form>
</body>
</html>
```

User Information Form

UserName:

Gender:

- Male
- Female
- Other

Vehicles:

- I have a Mobile
- I have a Tab
- I have a Laptop
- I have a Desktop

Comments:

TextArea:

Registration Form

```
<html>
<body>
<h2>Simple Registration Form</h2>
<form action="/register" method="post">
<label for="firstname">First Name:</label>
<input type="text" id="firstname" name="firstname" required><br><br>
<label for="lastname">Last Name:</label>
<input type="text" id="lastname" name="lastname" required><br><br>
<label for="email">Email:</label>
<input type="email" id="email" name="email" required><br><br>
<label for="password">Password:</label>
<input type="password" id="password" name="password" minlength="6" required><br><br>
<label for="confirm_password">Confirm Password:</label>
<input type="password" id="confirm_password" name="confirm_password" minlength="6" required><br><br>
<label for="gender">Gender:</label><br>
<input type="radio" id="male" name="gender" value="male">
<label for="male">Male</label><br>
<input type="radio" id="female" name="gender" value="female">
<label for="female">Female</label><br>
<input type="radio" id="other" name="gender" value="other">
<label for="other">Other</label><br><br>
<label for="dob">Date of Birth:</label>
<input type="date" id="dob" name="dob"><br><br>
<label for="phone">Phone Number:</label>
<input type="tel" id="phone" name="phone" pattern="[0-9]{10}" placeholder="1234567890"><br><br>
<label for="address">Address:</label><br>
<textarea id="address" name="address" rows="4" cols="50"></textarea><br><br>
<input type="checkbox" id="terms" name="terms" required>
<label for="terms">I agree to the terms and conditions</label><br><br>
<input type="reset" value="Register">
<input type="reset" value="Reset">
</form>
</body>
</html>
```

Simple Registration Form

First Name:

Last Name:

Email:

Password:

Confirm Password:

Gender:

- Male
- Female
- Other

Date of Birth: 

Phone Number:

Address:

I agree to the terms and conditions

Simple Image Gallery

```
<html>
<body>
<h2>Simple Image Gallery</h2>
<!-- Gallery Section -->
<h3>Gallery</h3>

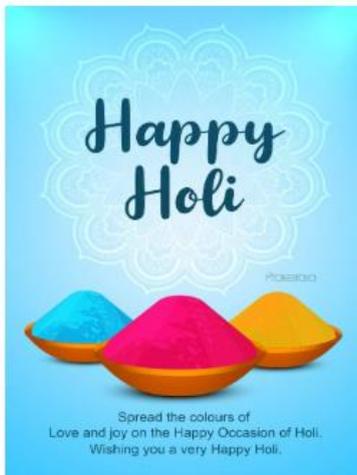




</body>
</html>
```

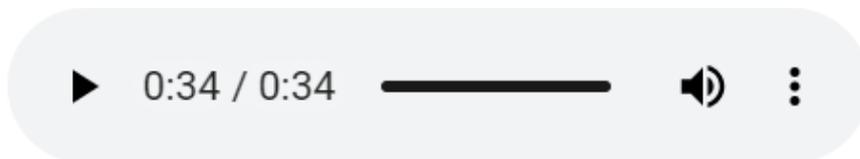
Simple Image Gallery

Gallery



Audio Embedding

```
<html>  
<body>  
<audio controls autoplay>  
<source src="IMG_4720.mp3" type="audio/wav"/>  
</audio>  
</body>  
</html>
```



Video Embedding

```
<html>  
<body>  
<video width = "288" height = "512" controls autoplay>  
<source src = "IMG_4721.mp4" type = "video/mp4" />  
</video>  
</body>  
</html>
```



CSS

Inline CSS

```
<html>
<head>
<style>
  body{
    background-color: lime;
  }
  h1{
    color:maroon;
    margin-left: 50px;
  }
</style>
</head>
<body>
<h1>This is Heading</h1>
<p> This is paragraph</p>
</body>
</html>
```

This is Heading

This is paragraph

Embedded CSS

```
<html>
<head>
<style media="all">
  body{
    background-color: maroon;
  }
  h1{
    color: lime;
    margin-left: 20px;
  }
</style>
</head>
<body>
  <h1>This is Heading</h1>
  <p>This is paragraph</p>
</body>
</html>
```

This is Heading

This is paragraph

External CSS

Saved as “.html” in Extension

```
<html>
<head>
  <link rel="stylesheet" type="text/css" href="css.css">
</head>
<body>
  <h1>This is Heading</h1>
  <p>This is paragraph</p>
</body>
</html>
```

Saved as “.css” in Extension

```
<html>
<head>
  <link rel="stylesheet" type="text/css" href="css.css">
</head>
<body>
  <h1>This is Heading</h1>
  <p>This is paragraph</p>
</body>
</html>
```

Result

This is Heading

This is paragraph

Navigation Bar

Html File

```
<html>
<head><title>Simple Navbar</title>
<link rel="stylesheet" href="NAVI.css">
</head>
<body>
<div class="navbar">
  <a href="#home">Home</a>
  <a href="#about">About</a>
  <a href="#services">Services</a>
  <a href="#contact">Contact</a>
</div>
<section id="home">
  <h1>Home</h1>
  <p>Welcome to the homepage!</p>
</section>
<section id="about">
  <h1>About Us</h1>
  <p>Learn more about our company.</p>
</section>
<section id="services">
  <h1>Services</h1>
  <p>Discover the services we offer.</p>
</section>
<section id="contact">
  <h1>Contact</h1>
  <p>Get in touch with us.</p>
</section>
</body>
</html>
```

CSS FILE

```
body {
  line-height: 1.6;
  padding: 20px;
}
.navbar {
  background-color: #007bff;
  padding: 10px;
  text-align: center;
}
.navbar a {
  color: white;
  padding: 10px;
}
.navbar a:hover {
  background-color: #0056b3;
}
section {
  margin: 20px 0;
  padding: 20px;
  background: #f4f4f4;
  border: 2px solid #ccc;
  border-radius: 5px;
}
```

Home

Welcome to the homepage!

About Us

Learn more about our company.

Services

Discover the services we offer.

Contact

Get in touch with us.

Collage Record

```
1 <html>
2 <head>
3   <title>My College</title>
4   <style>
5     body {
6       font-family: Arial, sans-serif;
7       background-color: #f9f9f9;
8       margin: 20px;
9       padding: 20px;
10    }
11    h1 {
12      color: red;
13    }
14    img {
15      width: 100%;
16      max-width: 800px;
17      height: auto;
18      margin: 20px 0;
19    }
20    table {
21      width: 100%;
22      border-collapse: collapse;
23      margin-top: 20px;
24    }
25    table, th, td {
26      border: 1px solid #bdc3c7;
27      padding: 10px;
28      text-align: left;
29    }
30    th {
31      background-color: #34495e;
32      color: white;
33    }
34  </style>
35 </head>
36 <body>
37   <h1>Welcome to My College</h1>
38   <p>This is a brief introduction to our college.
39     We are dedicated to providing high-quality education
40     and fostering a dynamic learning environment for students.</p>
41   
42   <h2>Student Records</h2>
43   <table>
44     <tr>
45       <th>Name</th>
46       <th>Class</th>
47       <th>Section</th>
48       <th>Roll Number</th>
49       <th>Address</th>
50     </tr>
51     <tr>
52       <td>Shiva Sah</td>
53       <td>11</td>
```

```
54         <td>S10</td>
55         <td>35</td>
56         <td>Tinkune</td>
57     </tr>
58     <tr>
59         <td>Sushil Yadav</td>
60         <td>11</td>
61         <td>S10</td>
62         <td>39</td>
63         <td>Gaushala</td>
64     </tr>
65     <tr>
66         <td>Anand Sah</td>
67         <td>11</td>
68         <td>S10</td>
69         <td>4</td>
70         <td>Gaushala</td>
71     </tr>
72 </table>
73 </body>
74 </html>
75
```

Welcome to My College

This is a brief introduction to our college. We are dedicated to providing high-quality education and fostering a dynamic learning environment for students.



Student Records

Name	Class	Section	Roll Number	Address
Shiva Sah	11	S10	35	Tinkune
Sushil Yadav	11	S10	39	Gaushala
Anand Sah	11	S10	4	Gaushala

Conclusion:- In this chapter, we explored the basics of HTML (Hypertext Markup language), which is essential for creating web pages. We learned how HTML uses various tags to structure content, including heading, paragraphs, images, links, and lists. Additionally, we covered key elements like attributes, forms, table and multimedia. Along with HTML, we also briefly touched upon CSS (Cascading Style Sheets) to enhance the appearance of web pages by styling elements such as fonts, colors, and layout. Mastering both HTML and CSS is fundamental for building interactive and visually appealing website.