INTRODUCTION TO WEB DEVELOPMENT

Lecture 1

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1 What Is Web Development?

2 Important Terminologies

3 Client-Server

4 Website Vs Web application

5 Web Application Architecture

6 Three Pillars Of Front End

7 How You Can Get Best From This Series

What Is Web Develpment

Basic Definition

Web development is basically the tasks associated with developing websites/web applications

Terminologies

1

Client

3.

Web Site

2

Server

4.

Web App

Client Vs Server

Website Vs Web Application

Website

- Provides static content: text, images, audio, and video.

- Developed using HTML, CSS, and JavaScript.

- Intends to inform about businesses, individuals, and organizations.

- Examples: news sites, tutorials, Portfolio

Web Application

- Generates dynamic content

- Produced through a code running on a server

-Provides customization

- The output is sent to the client's browser for display.

Web Application Architecture

Components Of Web Application

Frontend

Backend

Database

What Is Front End ?

Whatever the user sees in his browser is front-end like:

- **images**
- **text**
- **colors**
- **buttons**
- **etc.**

What Is Back End?

- The code running at the server
- Not visible to the end user
- Saves and manages data
- Handles business logic

amazon

Consider an example

amazon

amazon.in

Checkout

1 Delivery address

syed mohammad ali
h.no.42,near,rafiqia school
noor,mahal
BHOPAL, MADHYA PRADESH 462001
Add delivery instructions

Change

Or pick up near this address - See nearby pickup locations

2 Payment method

UPI

Change

Add a gift card or promotion code

Enter Code | Apply

3 Offers

Change

4 Review items and delivery

One-time password required at time of delivery

Please ensure someone will be available to receive this delivery.Learn more.

FREE fast delivery

Syed mohammad ali, get FREE delivery by Friday on this order. With Amazon Prime, you can enjoy unlimited free, fast delivery, exclusive access to deals & more for 1 year.
» Join Prime for just ₹1,499 per year

Delivery date: 26 Aug 2023

If you order in the next 8 hours and 48 minutes (Details)
Items dispatched by Amazon Fulfilled

Ant Esports VS600L 600 Watt Non-

Choose a delivery option:

Place Your Order and Pay

By placing your order, you agree to Amazon's privacy notice and conditions of use.

Order Summary

Items:	₹2,306.00
Delivery:	₹40.00
Total:	₹2,346.00
Promotion Applied:	-₹40.00
Order Total:	**₹2,306.00**

Your Savings: ₹ 1,033.00 (31%)

- FREE Delivery
- Item discount

Details

How are delivery costs calculated?
Why didn't I qualify for FREE Delivery?

Backend Programming Language

JS

JavaScript (NodeJS)

Backend Programming Language

JavaScript (NodeJS)

Pytho
n

Backend Programming Language

JavaScript (NodeJS)

Pytho
n

Rub
y

Backend Programming Language

JavaScript (NodeJS)

Python

Ruby

Java

What Is Database ?

- Stores data.
- Manages data integrity and security.

Web Application Architecture

Technologies To Learn For Full Stack

Full Stack Developement

Front-end

Back-end

Database

The Three Key Players In Front End

HTM

CSS

JS

How You Can Get Best From This Series?

- **Stay Consistent: Set a Schedule**
- **Engage Actively: Practice Coding**
- **Ask Questions**

THANK YOU

WHAT IS HTML

Lecture-2

Table Of Contents

1 Introduction To HTML

2 History of HTML

3 Structure of HTML

What Is HTML?

HTML stands for **Hypertext Markup Language**

It is the most widely **used language** to write **Web Pages**.

In other words, we can say **HTML** is the **backbone** of **every web page** available on the **internet**

What Is HTML?

HTML
Hyper
Text
Markup
Language
Reference/ link
Data / Information
Predefined / Marked
Communication

HTML Explained

Let's summarize:

- **Hyper Text**: Any clickable text available on a web page
- **Markup:** commands are given in <> to tell the browser how the embedded data is to be displayed on the web page.
- **Language:** Communication medium

Is HTML A Programming Language?

What type of Programming Language is C?

- It is a **Procedure Oriented** Language.

What type of Programming Language is Java?

- Java is an **Object Oriented** Language.

What type of Language is HTML?

- HTML is not a programming language. But it is a **Mark Up** Language

What Is Markup?

Markup, also known as tag, is a short text describing to the browser how it should display the content embedded inside it.

Syntax:

<tag>Content</tag>

Examples

HTML Code	Output
Hello	**Hello**
<u>Hello</u>	Hello
x²	x^2

Screenshot Of Code

EXPLORER

FRONTENDAPPS

index.html

Get Started | index.html

index.html > ...

```html
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta http-equiv="X-UA-Compatible" content="IE=edge" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <title>Home Page</title>
  </head>
  <body>
    <p><strong>Sharma Computer Academy</strong></p>
  </body>
</html>
```

Output

Who Executes HTML Page?

- **HTML page** is executed by the **web browser**.

- Exactly speaking it is rendered by a special software which is built inside our **WEB BROWSER** and it is called **HTML ENGINE** or **HTML INTERPRETER.**

History Of HTML

HTML was developed by **Tim Berners Lee** in the year **1991** but was released in **1993**

In **1995 HTML** was made commercial under the guidance of an organization called **W3C** which stands for **World Wide Web Consortium**.

HTML's most popular version was **HTML 4.01** launched in **1999** and was **100%** supported by every browser.

Today the current version of **HTML** is **HTML 5.3** launched in **2021.**

An Important Point

- **HTML** is a **non-case-sensitive** language.
- That means we can write the **tags** in any case we want. But it is **recommended** that we write them in **lowercase.**
- Every **HTML page** must be saved with the extension "**.html**" or "**.htm**".

Structure Of An HTML Page

Just like **any programming language** has a standard way or **structure of writing code**, similarly every **HTML page** has **basic structure**

```
<!DOCTYPE html>
    <html>

        <head>
            <title> Title here </title>
        </head>

        <body>
            Web page content goes here.
        </body>

    </html>
```

Explanation

- **The HEAD section** contains information about the **Page** which is mostly used by **browsers** and **search engines.**
- This **information** is not meant for the **users** and **isn't directly displayed** to the **user.**
- The **BODY section** mainly contains **information** that will be **displayed to the user**.

What Is DOCTYPE?

- The **DOCTYPE** is not a **tag**, rather it is an instruction.
- Informs the browser which **HTML** standard **(4 or 5)** the page developer is using.
- For **HTML 5** the **DOCTYPE** is: **<!DOCTYPE html>**

THANK YOU

SETTING UP THE ENVIROMENT

Lecture-3

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1 Tools To Be Needed

2 First HTML Program

Tools Needed For Developing And Runing HTML Pages

- **Editor:** Notepad, Notepad++, Visual Studio Code, Sublime Text, ATOM, Bracket
- **Browser:** Any Moder Browser.

We will use **VS Code** as our code editor and we also will use **CHROME** for running **HTML PAGES** through its **HTML ENGINE**

How To Set Up VS Code

- Download **VS code**
- Install **4 extensions**
  - Live Server
  - Prettier
  - Auto Rename Tag
  - Material Icon 3

THANK YOU

CHILD TAGS OF <head> TAG

Lecture-4

Table Of Contents

1 <title> Tag

2 <base> Tag

3 <style> Tag

4 <link> Tag

5 <script> Tag

6 <meta> Tag

<title>

- As the name suggests we use **<title>** to set the title of the page.
- If not given, the browser show the **URL** as title

<base>

- This tag sets the **BASE URL** to be used for <img>, **<a>**, <link>.

- If we use this tag then we need to set the BASE URL in just one place while in other tags we can simply the file name/image name we want to access.

Syntax:

- <base href="base url" />

<style>

- It is used to add **CSS styling** to our **CURRENT WEB PAGE**
- If we do not use it then the browser applies **DEFAULT STYLES**
- Through the **<style> tag** we can control many properties of **HTML content** like **color**, **font name**, **font size**, **position**, **alignment** etc.

<link>

- It is used to connect **EXTERNAL DOCUMENTS** with the current **HTML** page.

- These documents are generally stylesheets as well icons to be used as favicon

Syntax:

- <link rel="...." type="...." href="...."/>
- rel: Defines the relationship and for CSSit is "stylesheet"
- type: lang/content of the document. For CSS it "text/css"
- href=path to the document

Example:

- <link rel="stylesheet" type="text/css" href="styles/mystyles.css"/>

How to add a favicon on the web page

- We can use <link> tag for adding a favicon on the web page

What is a **favicon**?

- It is a small icon, generally the logo of the company, displayed in the title bar web page

Syntax:

- <link rel="icon" type="image/extension" href="icon path"//

<script>

- It is used to attach JS code to our current HTML page.
- By adding JS code we can make our page dynamic or interactive
- **Syntax:**

```
<script>
    //JS code
</script>
```

THANK YOU

CHILD TAGS OF <body> Tag

Lecture-5

Table Of Contents

1 The <body> Tag

2 <p> Tag

3
 Tag

4 <u> Tag

5 <h1> To <h6> Tags

6 <a> Tag

7 <img> Tag

The <body> Tag

- We use **<body>** for adding the **content** to be shown to the user
- All the **tags** which are not **child tag** of the **head tag** are **child tags** of **body tag**

Types Of Child Tags Of <body> Tag

- **Inline Elements:** are those that occupy only that much width on the page which is needed to show their contents.

For ex : <img> , <a> , <b>,<i> etc.

- **Block Elements:** are those that occupy the entire width of the page irrespective of their content.

For ex : <h1>,<ul>,<li>, ,<p>etc.

The <p> TAG

- **<p>**: paragraph tag is used to display the text it automatically leaves one line before and after the text.

```html
<html>
<head>
<title>Home Page</title>
</head>
<body>
<p>
This is my home page !
</p>
<p>
Welcome to SCALive !
</p>
</body>
</html>
```

FORMATING TAGS OF <body> Tag

Lecture-6

The
 TAG

- **
** :use to generate new line .

```html
<html>
<head>
<title>Home Page</title>
</head>
<body>
<p>
This is first line.<br>
This is second line.<br>
This is third line.
</p>
</body>
</html>
```

The <u> TAG

- **<u>** : used to underlying the text.

```
<!DOCTYPE html>
<html>
<body>
<u>This Is Underline</u>
</body>
</html>
```

The <b> TAG

- The **<b>** tag in **HTML** is used to apply bold formatting to text within a web page.

```html
<!DOCTYPE html>
<html>
<head>
<p>This is normal text </p>
<p><b>This is bold text.</b></p>
</body>
</html>
```

The TAG

- The ** tag** is used to define text with strong importance. The content inside is typically displayed in bold.

```html
<!DOCTYPE html>
<html>
<body>
<p>This text is normal.</p>
<p><strong>This text is important!</strong></p>
</body>
</html>
```

This text is normal.

This text is important!

The <i> TAG

- The **<i>** stands for italic and used to change the text to italic

```html
<!DOCTYPE html>
<html>
<body>
<p>Welcome to SCALive
<i>The Easiest Way</i>
to Learn new technologies</p>
</body>
</html>
```

Welcome to SCALive *The Easiest Way* to Learn new technologies

The TAG

- The **** tag used to change the text in italic but it stands for emphasize.

```html
<!DOCTYPE html>
<html>
<body>
<p>The <em>Easiest Way</em>
  to Learn new
  <em>technologies</em></p>
</body>
</html>
```

The *Easiest Way* to Learn new *technologies*

The <hr> TAG

- The **<hr> tag** in **HTML** is used to create a horizontal line or thematic break on a web page.

Syntax:

- <hr align="value" width="value" size="vlaue" noshade color=" ">

The <hr> TAG

- The **<hr> tag** in **HTML** is used to create a horizontal line or thematic break on a web page.

```html
<!DOCTYPE html>
<html>
<body>
<h1>Welcome To SCALive</h1>
<p>The Easiest Way to Learn new technologies</p>
<hr>
<p>Changing lives, organizations, and
  nationsthrough expertise transformation in
  digital technology.</p>
</body>
</html>
```

Linking Two HTML Pages

Lecture-7

Anchor Tag

- <a></a>: An **anchor tag** is used to allow the user to navigate from one page to another with the help of clickable links.

SYNTAX :

- <a href =“path/name of the page” target =“_blank”>text to display</a>

Achor Tag

```html
<!DOCTYPE html>
<html>
<body>
<h1>Anchor Tag</h1>
<a href="https://scalive.in/">Visit SCALive</a>
</body>
</html>
```

How To Display Images?

- To insert an image we use the **<img>** tag

Syntax:

- <img src="path to the image">

```html
<!DOCTYPE html>
<html>
<body>
<h1>The img Tag</h1>
<img src="car.jpg" alt="Bugatti" width="500" height="600">
</body>
</html>
```

Using Image As Hyperlink

- Images can also act as **hyperlinks** just as **normal text.**

- This is done by **enclosing** the **<img>** tag within the **<a> ... </a>** tags.

Example:

- <a href="targetpg.htm"><img src="target.gif"></a>

Attributes Of <img> Tag

The **<img>** tag has the following attributes:

- **src**
- **width**
- **height**
- **alt**
- **title**
- **align**
- **border**

THANK YOU

HOW TO CREATE LIST IN HTML

Lecture-7

Table Of Contents

1 Creating List

2 Ordered List

3 Unordered List

4 Definition List

What are Lists?

- **Lists** are **used** to **group related pieces** of **information together**, so they are **clearly associated** with **each other** and **easy to read**.

- In **modern web development,** the **list element** is **very important** as it is **frequently used** for creating **NAV BAR** as well as **general content**.

Types Of Lists In HTML

There are three list types in HTML:

- **unordered list**: used to group a set of related items, in no particular order.
- **ordered list**: used to group a set of related items, in a specific order.
- **definition list**: used to display the name/value pairs such as terms and their definitions, or times and events.

UnOrdered Lists In HTML

```html
<!DOCTYPE html>
<html>
<body>
<h2>Unordered Example</h2>
<ul>
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ul>
</body>
</html>
```

Ordered Lists In HTML

```html
<!DOCTYPE html>
<html>
<body>
<h2>Ordered List Example</h2>
<ol>
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ol>
</body>
</html>
```

Definition Lists In HTML

```html
<dl>
    <dt>HTML</dt>
    <dd>
        The language used to write Web pages.
    </dd>
    <dt>CSS</dt>
    <dd>
        The language used to design and format Web pages.
    </dd>

</dl>
```

HTML

The language used to write Web pages.

CSS

The language used to design and format Web pages.

Nested Lists

A **list item** can contain another **entire list** this is known as **"nesting"** a **list**. It is useful for things like **tables** of **contents**

```html
<ul>
  <li>Fruit
    <ul>
      <li>Apples</li>
      <li>Bananas</li>
      <li>Oranges</li>
    </ul>
  </li>
  <li>Vegetables
    <ul>
      <li>Carrots</li>
      <li>Potatoes</li>
      <li>Onions</li>
    </ul>
  </li>
</ul>
```

- Fruit
  - Apples
  - Bananas
  - Oranges
- Vegetables
  - Carrots
  - Potatoes
  - Onions

THANK YOU

Scalive

HOW TO CREATE TABLE IN HTML

Table Of Contents

1 Creating Tables In HTML

2 Attributes Of Table

3 Generating Irregular Tables

Tables In HTML

A **table** is a **structured** set of **data** made up of **rows** and **columns**.

Tables allow us to **quickly** and easily **look** up **values** that indicate some kind of **connection** between **different types of data**

For Example

Name	Roll No
Ali	101
Neeraj	102
Yash	123

How To Create Table ?

To **create a table** we use **<table> tag,** which itself has **3 important child tags** as shown below:

- **<table>**

Used as **Container tag**

- **<tr>**

Used to **generate row**

- **<td>**

Used to **generate column**

- **<th>**

Used to **generate column heading**

Creating Header Cells

- Two types of cells can be defined in an HTML table. One of them is the simple cell , created using <td> tag.

- The other one is a special type of cell created using <th> element, that contains header information for a set of specified cells.

- Browsers render the content of header cells in a special way ,as centered bold text

Attribute Of <table> Tag

The <table> tag has the following important attributes:

border

- Sets the border width in numerical values from 0 and up.

cellspacing

- Empty space between table data cells.

cellpadding

- Empty space between the edge of a cell and cell content.

Attribute Of <table> Tag

align

- Aligns the table to the left, right or center.

width/height

- The width/height of the table; measured in pixels or percentage.

bgcolor

- Background color for all cells that do not have a background color or image specified.

Attribute Of <table> Tag

background

- Background image for all cells that do not have a background color or image specified.

- **bordercolor**

Border color for the table.

What Are <thead>,<tbody> and <tfoot> ?

- HTML 5 introduced 3 new tags called <thead>, <tbody> and <tfoot>.

- All these three tags are used to provide rich information to browser, search engines , and assistive technologies about the meaning of the content found in each part of an HTML table

What Are <thead>,<tbody> and <tfoot> ?

- thead is used to enclose a group of rows in a table as a header.
- tfoot is used to enclose a group of rows in a table as a footer, such as last row for summary.
- tbody is for main body of the table.

What Is caption ?

- The <caption> tag defines a table caption.

- The <caption> tag must be inserted immediately after the <table> tag and before <thead> tag.

Using “colspan” And “rowspan” Attributes

- Table cells can span across more than one column or row.

- The attributes colspan ("how many across") and rowspan ("how many down") indicate how many columns or rows a cell should take up.

THANK YOU

FORMS
IN HTML

What is an HTML Form ?

- HTML **Forms** are an **integral part** of the **web page** and their basic purpose is to collect **information** from the **user**.

- They are commonly used to allow users to :

  - **register on a Web site**

  - **log in to a Web site**

  - **order a product**

  - **send feedback**

  - **search for some information**

- **HTML forms** collect all this data and pass it to the **server**

A Sample Registration Form

A Sample SignUp & Login Form

Creating an HTML Form

- To create an **HTML form** we use the **<form>** tag.

Syntax :

<form action="....." method="....."></form>

input controls

</form>

What are “input controls” ?

- An **HTML form** can contain **GUI elements** like

- **Text fields**
- **Checkboxes**
- **Radio-buttons**
- **Lists**

and many more.

- These all are called “**input controls**” because **users** use them for **inputting data**.

What are “input controls” ?

Tags For Input Controls

Input controls are generated using **3 types of tags**:

- **input**
- **textarea**
- **telect**

The <input> Tag

- The HTML **<input>** element inserts one of many types of controls in a form, usually destined to **collect information** provided by the **user**.

- The **type** of control displayed depends on the "**type**" **attribute** which may take one of the nine values given in the next slide.

The <input> Tag Controls

- text
- password
- checkbox
- radio
- submit
- reset
- button
- image
- file

General Syntax of “input” Tag

```
<input

 type=“ . . .”
 name=“. . .”
 size=“. . .”
 maxlength=“. . .”
 value=“. . .”
 checked=“. . .“

>
```

Creating “textboxes”

- The **TextBox** is the most common input type and to make HTML easier, is the default for the <input> tag.
- This tag lets our readers type in any **text information** into the box.
- To create a TextBox we set the “type” attribute to the value “text” which creates a single-line text box of the specified size.
- If the size is not given the TextBox is 20 characters

Syntax:

<input type=“text” >

Example 1

```
<form>

 First name: <input type="text" name="firstname"><br>
 Last name: <input type="text" name="lastname">

</form>
```

Output

Creating “password fields”

- The **password field looks** almost identical to the **TextBox**.
- However, when we **type** in it, the **letters** are **hidden**.
- The **passwords** are not sent **encrypted** in any way.

Creating “password fields”

- To **create** a **Password field** we set the “**type**” attribute to the value “**password**” which creates a **single-line** text box of the **specified size**.

- If the size is not given the textbox is **20 characters**

Syntax:

- <input type=“password” >

Example 2

```
<form>

User Name: <input type="text" name="username"><br>
Password: <input type="password" name="pwd">

</form>
```

Output

Creating “Checkboxes”

- A **checkbox** is a **control** that allows users to **switch between** two values: **checked** and **unchecked**.
- This type of **control** can be useful to ask **multiple-answer** questions.
- A good example of its use can be a form where the user must select topics of interest (movies, radio, shopping, etc.).
- To create a Checkbox we set the “type” attribute to the value “checkbox”.

Syntax:

<input type=“checkbox” >

Example

```
<form>

Select the languages you know:<br><br>
<input type="checkbox" name="checkbox1"><b>C</b><br>
<input type="checkbox" name="checkbox2"><b>Php</b><br>
<input type="checkbox" name="checkbox3"><b>C++</b><br>
<input type="checkbox" name="checkbox4"><b>Java</b><br>

</form>
```

Output

Using “checked “ Attribute

- A checkbox element can be placed onto a web page in a pre-checked fashion by setting the checked attribute.

- It is a boolean attribute which if present loads the checkbox with ON status

Syntax:

<input … checked />

OR

<input … checked="checked" />

Creating “RadioButton”

- Just like a CheckBox a RadioButton is also used to offer the user a set of predetermined choices.

But it can offer a single selection at a time.

- To create a RadioButton we set the “type” attribute to the value “radio”.
- Also, we need to set the “name” property of all radios to the same value to make them mutually exclusive.

Syntax:

- <input type=“radio” >

Example 4

```
<form>

Your Gender:<br><br>
<input type="radio" name="gender" ><b>Male</b><br>
<input type="radio" name="gender"><b>Female</b><br>

</form>
```

Output

Creating “Submit Button”

- A submit button is used to send form data to a server. The data is sent to the page specified in the form’s action attribute.

- The file defined in the action attribute usually does something with the received input

Syntax:

```
<input type=“submit” >
```

Example 5

```
<form action=“Login.py“ >

Username: <input type="text" name="user"><br>
Password: <input type=“password" name="user">
<br>
<input type="submit" value=“Login">

</form>
```

Output

Creating “Reset Button”

- A **reset button** is used to **reset** the **form** to its **original state** clearing all **user input**.

Syntax:

<input type=”reset” >

Example 6

```
<form name="input" action="register.jsp" method="get">

Username: <input type="text" name="user"><br>
Password: <input type="password" name="user">
<br>
<input type="submit" value="Submit">

<input type="reset" value="Reset">

</form>
```

Output

Creating “Button”

- Setting the HTML input **element's type** attribute to "**button**" will render a button with no specific behavior.

- Unlike the **"submit"** type of input, this type will not automatically submit a web form.

- We use this **button-type** input for engaging users in **Javascript functionality** on our pages

Syntax:

<input type=“button” onclick=“fun_name()” >

Example 7

```
<form>

 Your name: <input type="text"><br>
 <input type="button" value="Click Me" onclick="showmsg()">

</form>
```

Output

Creating “image button”

- Image **buttons** are images used as buttons
- Image buttons have the same effect as submit buttons. When a visitor clicks an image button the form is sent to the address specified in the action setting of the<form> tag.
- Setting the HTML input elementit’s type attribute to “image” and using the src attribute for the image path will render an image as a button

Syntax:

<input type=“image” src=“name of image” >

Example 8

```
<form name="input" action="register.js" method="get">

  Name: <input type="text"><br>
  Contact No: <input type="text"><br>
  Gender:
  <input type="radio" name="gender" value="male">Male
  <input type="radio" name="gender" value="female">Female<br>
  <input type="image" src="../images/button_register.gif">

</form>
```

Output

Creating “file upload” button

- Setting the HTML input element's type attribute to "file" will render a file upload field in a web <form>.
- This allows a user to browse their computer for a file to upload.
- The user places their selected file in the file field and continues filling out your form and all data can be parsed at once when they press submit.

Syntax:

<input type=“file” >

Example 9

```
<form enctype="multipart/form-data" action="upload.js" method="post">

 <p>Browse for a file to upload: </p>
 <input type="file" name="uploaded_file">
 <br /><br />

 <input type="submit" value="Upload It Now">

</form>
```

Output

Browse for a file to upload:
Choose File
No file chosen
Upload It Now

What Is enctype ?

- This attribute specifies that data present in form should be encoded when submitting to the server.

Syntax:

- <form enctype="…" >

Three Possible Values For enctype

enctype Attribute

It specifies how the browser encodes the data before it sends it to the server.

Value	Description
application/x-www-form-urlencoded	All characters are encoded before sent (spaces are converted to "+" symbols, and special characters are converted to ASCII HEX values)
multipart/form-data	No characters are encoded. This value is required when you are using forms that have a file upload control
text/plain	Spaces are converted to "+" symbols, but no special characters are encoded

THANK YOU

FORMS
IN HTML

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1 Using <select> Tag

2 Generating Drop Down List

3 Generating Scrollable List

4 How to work with text area

The <select> Tag

- The **<select>** tag is used **inside** of a **form element** to create two kinds of **elements**:
- A **Drop Down List**
- A **Scrolling List**

The <select> Tag

- Each item in the **list** is created using an **<option>** tag.

- The **<option>** tags are contained between the **opening** and **closing <select>** tags, and at least one **<option>** tag is **required**.

General Syntax Of “select” Tag

```
<select>

 <option> some text </option>
 <option> some text </option>
 <option> some text </option>
 .
 .
</select>
```

Example

```
<b>Your language of choice:</b>
 <form >
 <select>
 <option>PHP</option>
 <option>JSP</option>
 <option>Python</option>
 <option>Java Script</option>
 <option>VB Script</option>
 </select>
</form>
```

Output

Your language of choice:
PHP
PHP
JSP
Python
Java Script
VB Script

Using Group Headings In <select> Tag

- The **<select>** allows us to create **logical group headings.**

- For this, the **<optgroup>** tag can be used.

Syntax:

```
<select>

 <optgroup label="some name">
 <option> some text </option>
 <option> some text </option>
 <option> some text </option>
 </optgroup>
 .
 .
</select>
```

Example

```
<select>
 <optgroup label="Server Side Lang" >
 <option>PHP</option>
 <option>JSP</option>
 <option>Python</option>
 </optgroup>
 <optgroup label="Client Side Lang" >
 <option>Java Script</option>
 <option>VB Script</option>
 </optgroup>
</select>
```

Output

PHP
Server Side Lang
PHP
JSP
Python
Client Side Lang
Java Script
VB Script

Creating Scrollable Lists

- **Scrollable Lists** are those which are **displayed** as a **scrolling list of items**.

- They also **allow** the user to select **multiple items**.

- To create a **scrollable list** we use the **multiple option** of **<select>** tag.

Syntax:

```
<select multiple="multiple">

 <option> some text </option>
 <option> some text </option>
 <option> some text </option>
 .
 .
</select>
```

Example

```
<b>Your language of choice:
 </b>
<form >
 <select multiple="“multiple">
 <optgroup label="Server Side Lang" >
 <option>PHP</option>
 <option>JSP</option>
 <option>Python</option>
 </optgroup>
 <optgroup label="Client Side Lang" >
 <option>Java Script</option>
 <option>VB Script</option>
 </optgroup>
</select>
</form>
```

Output

Your language of choice:
Server Side Lang
PHP
JSP
Python

Your language of choice:
Python
Client Side Lang
Java Script
VB Script

Using The “size” Attribute

- The **size attribute** specifies the number of **visible options** in a **drop-down list**.
- The **default value is 1.**
- If the **multiple attribute** is present, the **default value is 4**

Example

```
<select multiple="multiple" size="6">
 <optgroup label="Server Side Lang" >
 <option>PHP</option>
 <option>JSP</option>
 <option>Python</option>
 </optgroup>
 <optgroup label="Client Side Lang" >
 <option>Java Script</option>
 <option>VB Script</option>
 </optgroup>
</select>
```

Output

Server Side Lang
PHP
JSP
Python
Client Side Lang
Java Script

The <textarea> Tag

- A **textarea** is similar to the **text input** but allows the person who's filling in the form to enter **multiple lines** of **information**, rather than a **single line**.

- Thus is better for free-form **text entry**.

- **However**, unlike the **input element**, the **textarea** has an **opening <textarea>** and **closing </textarea>** tag.

General Syntax Of “textarea” Tag

<textarea name=“. . .” rows=“. . .” cols=“. . .” >

<!- - some text - - >

</textarea>

Example

```
<p>Your views about our site: </p>
<form >

 <textarea >

 </textarea>

</form>
```

Output

THANK YOU

HTML 5

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1 Introduction To HTML 5

2 Improvements Given By HTML 5

3 Web Forms 2.0

4 New Input Elements

What Is HTML 5 ?

- **HTML5** is the **latest evolution** of the **standard** that **defines HTML.**

- It's **new version** of **HTML**, with **new elements**, **attributes**, and **behaviors.**

What’s New In HTML 5?

- Some of the most **prominent features** introduced in **HTML5** are:
  - **Forms 2.0** – Improvements to **HTML web forms** where **new attributes** have been introduced for **<input>** tag.
  - **New Tags: HTML 5** has provided us new tags like **<audio>**,**<video>**, **<data list>** etc .
  - **Semantic Tags:**those that clearly describe their meaning in a human- and machine-readable way like **<header>** , **<article>**,**<footer>**,**<nav>** etc
  - **Geolocation:** Let browsers locate the position of the user using geolocation.

And many more such features . . .

What Is Forms 2.0 ?

- Web **Forms 2.0** is an **extension** to the **forms features found** in **HTML4**.

- **Form elements** and **attributes** in **HTML5** provide a **greater** degree of **functionality** than **HTML4** and free us from a **great deal** of **tedious scripting** and **styling** that was **required** in **HTML4**.

New Input Types In HTML 5

- **HTML5** introduces several new **<input>** types like **email**, **date**, **time**, **color**, **range**, and so on. to **improve** the **user experience** and to make the forms more **interactive**.

- However, if a **browser** failed to **recognize** these new **input types**, it will treat them like a **normal text box**.

New Input Types In HTML 5

- In this section we're going to take a brief look at each of the following new input types:
  - **color**
  - **date**
  - **datetime-local**
  - **email**
  - **month**
  - **number**
  - **range**
  - **search**
  - **tel**
  - **time**
  - **url**
  - **week**

The <label> Tag

- Before we **start working with HTML 5** input types we must learn an important tag called **<label>**
- The HTML **<label>** element represents a **caption** for an item in a **user interface**.
- The **<label>** is used to **tell users** the value that should be entered in the associated **input field.**

The <label> Tag

- For a **<label>** to work properly, it must include a **for** attribute, which identifies the **<input>** to which it is associated.

- The **for** attribute's value should match the **id** (not the name) of the **<input>** element.

Example

```
<label for="fname">First Name</label><input id="fname"><br>
<label for="lname">Last Name</label><input id="lname">
<p>Do you agree to the terms and conditions?</p>
<input type="checkbox" id="agree" value="agree"><label for="agree">
Agree</label>
```

Another Point About <label> Tag

- When a **<label>** is clicked or tapped and it is associated with a **form control**, the resulting click event is also raised for the associated control.

Another Point About <label> Tag

```
<form>
    <label for="btn">Press the button</label>
    <input
     type="button"
     value="Click Me For A Message"
     onclick="greetings()"
     id="btn"
    />
</form>
```

Input Type Color

- The **color input type** allows the user to select a color from a color picker and returns the color value in hexadecimal format (#rrggbb).

- If we don't specify a value, the default is #000000, which is black.

Example

```
<form>
    <label for="mycolor">Select Color:</label>
    <input type="color" value="#00ff00" id="mycolor" /><br />
</form>
```

Input Type Date

- The **date** input type allows the **user** to select a **date** from a **drop-down calendar**.

- The **date value** includes the **year**, **month**, and **day**, but not the **time**.

Example

```
<form>
    <label for="mybdate">Select Your BirthDate:</label>
    <input type="date" id="mybdate" />
</form>
```

Input Type Datetime-local

The **datetime-local** input type allows the user to select both **local date and time**, including the **year**, **month**, and **day** as well as the time in **hours and minutes**.

Example

```
<form>
    <label for="mydatetime">Choose Date and Time:</label>
    <input type="datetime-local" id="mydatetime" />
</form>
```

Input Type Email

- The **email** input type **allows the user** to enter an **e-mail address.**

- It is **very similar to a standard** text input type, but if it is used in combination with the required attribute, the browser may look for the patterns to ensure a **properly formatted** e-mail address should be entered.

Example

```
<form>
    <label for="youremail">Enter A Valid Email Address:</label>
    <input type="email" id="youremail" required/>
</form>
```

Input Type Month

- The **month** input type allows the user to **select** a **month** and **year** from a **drop-down calendar**.

- The value is a **string** in the format **"YYYY-MM"**, where **YYYY** is the **four-digit year** and **MM** is the **month** number.

Example

```
<form>
    <label for="birthmonth">Select Your Birth Month:</label>
    <input type="month" id="birthmonth" />
</form>
```

THANK YOU