

WEB DEVELOPMENT

- Web development refers to the creating, building, and maintaining of websites.
- It includes aspects such as web design, web publishing, web programming, and database management.
- It is the creation of an application that works over the internet i.e. websites.

ROLE OF WEB PROGRAMMER

- Laying out the design of the website so that it works in browsers.
- Making websites more interactive.
- Developing the logic by which a web application works.
- Testing and improving web applications.
- Building databases and bringing that information to be displayed on the web page or application.
- Making websites safer (cyber security).
- Improving website performance and speed.

USE CASE

MINDSPRINT

What we do v

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OUR SERVICES

We pioneer digital transformation

to drive superior customer outcomes with precise solutions.







HTML AND HTML5

- HTML is the standard markup language for creating Web pages.
- HTML stands for Hyper Text Markup Language
- HTML describes the structure of Web pages using markup
- HTML elements are represented by tags
- HTML tags label pieces of content such as "heading", "paragraph", "table", and so on
- Browsers do not display the HTML tags, but use them to render the content of the page

HTML TEMPLATE

```
<html>
 <head>
</head> •
  <body>
```

HTML ELEMENTS AND TAGS

HTML tags:

- Paragraph:
- Headings: <h1> <h6>
- Link: <a>
- Image:
- Division: <div>
- Extra content:

Self-closing tags:

- Break Row:

- Horizontal Line: <hr>>

ATTRIBUTES IN HTML

- Attributes are commonly used
 - to add additional information or
 - behavior to the elements.

• ld:

- Uniquely identifies an element within the document.
- <div id="header"></div>

class:

- Assigns one or more class names to an element.
- Classes can be used to style elements with CSS or select them with JavaScript.
- <div class="container main-content"></div>

Style:

- Applies inline CSS styles to an element.

ATTRIBUTES IN HTML

title:

- Provides additional information about an element.T
- Typically displayed as a tooltip when the mouse hovers over the element
- <button title="Click to submit">Submit</button>

alt:

- Specifies alternative text for an image, used when the image cannot be displayed.
-

• src:

- Specifies the URL of an image, script, or other media resource.
-

href:

- Specifies the URL of a link
- Visit Example

LISTS AND TABLES

- Ordered lists ()
- Unordered lists ()
- Definition lists (<dl>)
- Nested List
- Tables (,
 ,)

TYPES ELEMENTS

Block level elements:

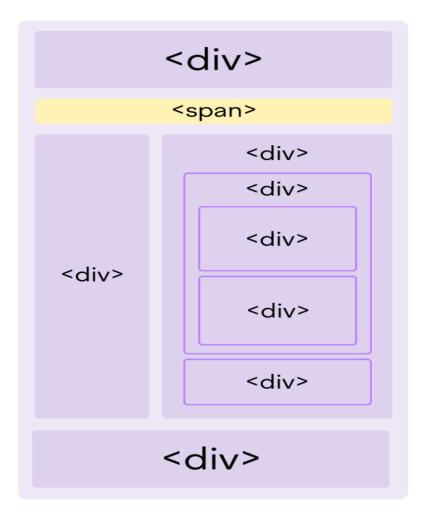
- A block-level element always starts on a new line.
- <div>, ,<h1> to <h6>, <form>, etc.

Inline elements:

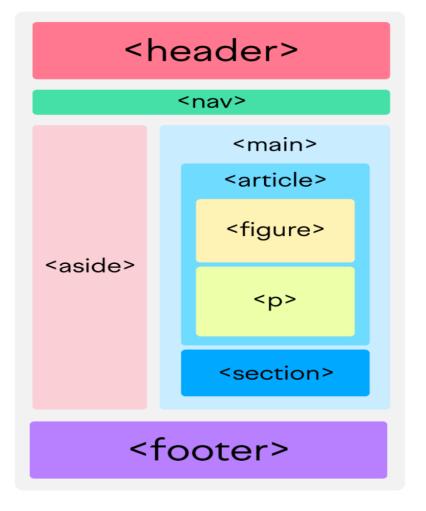
- An inline element does not start on a new line.
- , <a>, , <input> etc.

SEMANTIC ELEMENTS IN HTML5

Non-Semantic HTML



Semantic HTML



MULTIMEDIA ELEMENTS IN HTML5

- Audio tag
- Video tag
- Iframe tag

FORMS IN HTML

- Form elements: <form>, <input>, <textarea>, <button>, <select>, <option>
- Attributes for form elements: action, method, name, value
- Method: get vs Post

HTML5 FORMS ENHANCEMENTS

- New input types:
 - email, url, date, number, range
- Form validation attributes:
 - required, pattern, min, max

ATTRIBUTES FOR INPUT

Type:

- Specifies the type of input element or script.
- <input type="text">

Value:

- Specifies the value of an input element.
- <input type="text" value="Default text">

Name

- Assigns a name to an input element, often used for form submission.
- <input type="text" name="username">

Placeholder

- Provides a short hint that describes the expected value of an input field.
- <input type="text" placeholder="Enter your name">

Disabled

- Disables an element, making it unclickable and uneditable.
- <button disabled>Submit</button>

ATTRIBUTES FOR INPUT

readonly

- Makes an input field read-only, preventing the user from changing its value...
- <input type="text" readonly value="Read-only text">

required

- Specifies that an input field must be filled out before submitting the form.
- <input type="text" required>

checked

- Indicates whether an input element (checkbox or radio button) is checked
- <input type="checkbox" checked>

maxlength

- Specifies the maximum number of characters allowed in an input field.
- <input type="text" maxlength="10">

minlength

- Specifies the maximum number of characters allowed in an input field.
- <input type="password" minlength="10">

CREATE SIMPLE WEBSITE

- Create one simple Website
- Tourism place for your city
- Create pages:
 - Home
 - About
 - Contact
 - Places to Visit
 - Refer website: https://www.tamilnadutourism.tn.gov.in/

WHAT IS CSS?

CSS stands for Cascading Style Sheets

CSS describes how HTML elements are to be displayed on screen, paper, or in other media

CSS saves a lot of work. It can control the layout of multiple web pages all at once

External stylesheets are stored in CSS files

TYPES OF CSS

Types

Internal CSS External CSS

Inline CSS

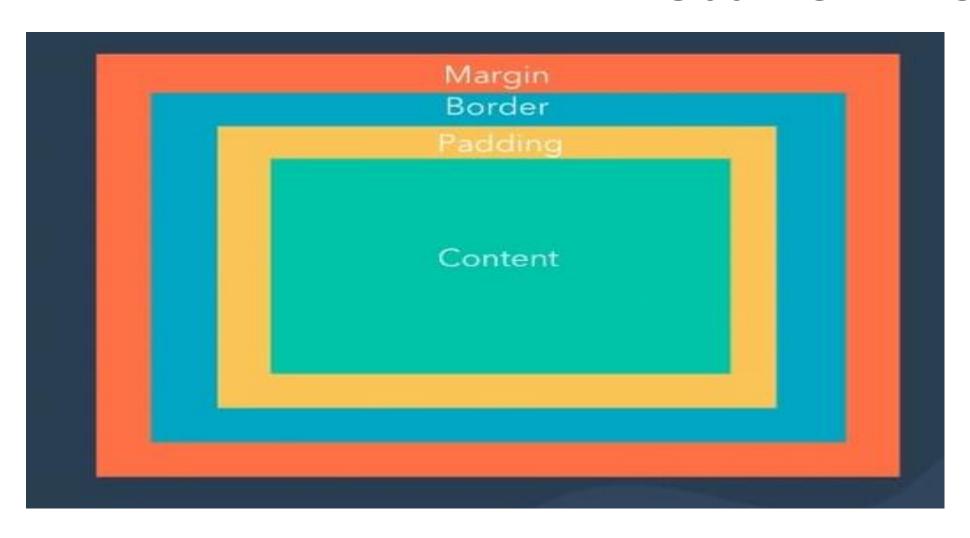
CSS SELECTORS

Selectors are something using which we can select the HTML elements.

Below are different types of selectors.

- Element Selector: p {color:red;}
- Class Selector : .c1{color:red;}
- Id Selector: #id1{color:red;}
- Universal Selector: # {color:red;}

CSS BOX MODEL



FONT PROPERTY

The CSS font properties define the font family, boldness, size, and the style of a text.

- font-family: "Times New Roman", Times, serif;
- font-style : normal | italic | oblique;
- font-size: 10px | 10%;
- font-weight: normal | bold | 100-900;
- font-variant: normal | small-caps;

BORDER

- Used to set border of any element
- Border: 2px solid red
- 2px: border size
- Solid: border style
- Red: border color

DISPLAY

- Used to set a display of element
- Inline
- Block
- Inline-block
- Flex
- grid

POSITION

- To set a position of element
- Static
- Relative
- Absolute
- Fixed
- sticky

COMBINATORS

- A combinator is something that explains the relationship between the selectors.
- A CSS selector can contain more than one simple selector. Between the simple selectors, we can include a combinator.
- There are four different combinators in CSS:
 - descendant selector (space): div p {}
 - child selector (>): div >p { }
 - adjacent sibling selector (+): div+p {}
 - general sibling selector (~): div~p {}

USE CASE IMPLEMENTATION

 Apply the CSS to the same page which you have created earlier using only HTML

BOOTSTRAP FUNDAMENTALS

- What is Responsive web design:
- Responsive web design is about creating web sites which automatically adjust themselves to look good on all devices, from small phones to large desktops.
- Example: www.getbootstrap.com



WHY BOOSTRAP?

Easy to use

Responsive Features

Mobile first approach

Browser compatibility

HOW TO INCLUDE BOOSTRAP IN HTML?

- Use CDN (content delivery links)
- You can download library directly and include the same.

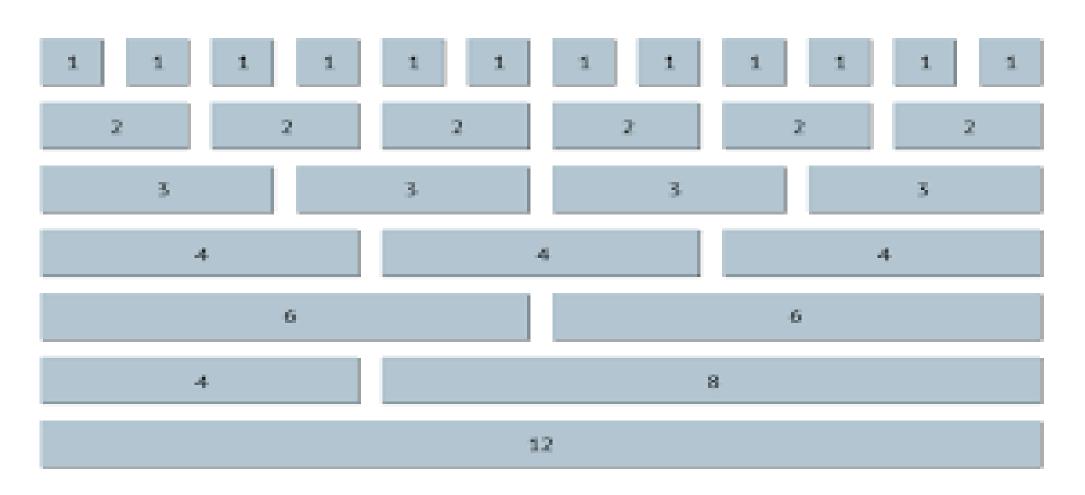
CONTAINERS USAGE

- Uses of classes
- Container:
 - Use the default margins and padding
- Container-fluid:
 - Cover the entire width

USE THE UTILITY CLASSES

- Margins
- Paddings
- Height
- Width

BOOTSRAP GRID SYSTEM



USE CASE

• Implement the same page using bootsrap.