

HTML

1. HTML Introduction

- What is HTML?
- What is an HTML Element?
- Web Browsers
- HTML Page Structure
- HTML History
- Web Browsers
- Web Browsers

2. HTML Editors

- Examples of popular editors
- Writing, saving and viewing HTML documents

3. HTML Elements and their Attributes

- Anatomy of HTML Elements
- The `<html !DOCTYPE>` Declaration
- General guidelines: case sensitivity, self-closing Tags etc.
- **`<head>` Element and it's children**
- `<head>`
- `<title>`
- `<style>`
- `<meta>`
- `<link>`
- `<script>`
- `<base>`
- **`<body>` Element and it's children:**
- `<body>`
- `<footer>`
- `<header>`

- `<main>`
- **Headings:**
- `<h1>` - `<h6>`
- **Paragraphs:**
- `<p>`
- **Formatting:**
- ``
- ``
- ``
- `<i>`
- `<ins>`
- `<mark>`
- `<pre>`
- `<small>`
- `<sub>`
- `<sup>`
- ``
- **Quotations:**
- `<abbr>`
- `<blockquote>`
- `<cite>`
- `<q>`
- **Tables:**
- `<table>`
- `<thead>`
- `<tbody>`
- `<tr>`
- `<th>`
- `<td>`
- `<tfoot>`
- `<colgroup>`
- `<col>`
- **List:**
- ``
- ``

- ``
- Javascript and CSS:
- `<style>`
- style attribute
- class attribute
- id attribute
- `<script>`
- `<link>`
- File Paths
- `<noscript>`
- Computer Code:
- `<code>`
- `<kbd>`
- `<samp>`
- `<var>`
- Form:
- `<form>`
- `<input>`
- `<label>`
- `<legend>`
- `<optgroup>`
- `<option>`
- `<select>`
- `<fieldset>`
- `<textarea>`
- Media:
- `<audio>`
- `<video>`
- `<svg>`
- `<figure>`
- `<figcaption>`
- Others:
- `<a>`
- `
`
- `<button>`

- `<div>`
- `<hr>`
- `<map>`
- `<nav>`
- ``
- `<summary>`
- `<tabindex>`
- `<u>`
- comment tag
- comment tag
- Block and Inline Elements
- Semantic and Non Semantic Elements
- Style Guide and Best Practices
- HTML Entities and Symbols
- HTTP Methods

CSS

1. CSS Introduction

- Syntax/Anatomy of CSS Rules
- Adding CSS Styles to HTML Documents
- Specificity
- The `!important` rule
- Units
- Box Sizing
- CSS comments

2. Selectors

- Simple selectors
- Combinator selectors
- Attribute selectors
- Pseudo-class selectors
- Pseudo-elements selectors

3. Colors

- Color Names
- Color Values

- Color Keywords

4. Gradients

- Linear Gradients
- Radial Gradients
- Conic Gradients

5. Backgrounds

- background-color
- background-image
- background-repeat
- background-attachment
- background-position
- background (shorthand property)

6. Text

- text-color
- text-align
- text-decoration
- text-transform
- text-shadow
- spacing
 - text-indent
 - letter-spacing
 - line-height
 - word-spacing
 - white-space

7. Fonts

- font-family
- font-style
- font-size
- font-weight

8. Borders & Outline

- CSS Box Model
- Borders
- Border Width
- Border Color
- Border Sides
- Border Shorthand

- Border Image
- Border Radius
- Rounded Borders
- outline-style
- outline-color
- outline-width
- outline-offset
- outline

9. Height & Width

- min & max

10. Icons

- Adding Icons

11. Spacing: Margins & Padding

- Sides
- Value

12. `<a>` Links

- Link States

13. Lists

- list-style-type
- list-style-position
- list-style-image
- list-style(shorthand)

14. Tables

- border-collapse

15. Position

- static
- relative
- fixed
- absolute
- sticky

16. Float

17. Overflow

18. Z Index

19. Opacity

20. Display

- inline

- block
- inline-block
- flex
- grid
- display:none vs visibility:hidden

21. Display:grid

22. Display:flex

23. Shadow Effects

- text-shadow
- box-shadow

24. 2D Transforms

- translate()
- rotate()
- scaleX()
- scaleY()
- scale()
- skewX()
- skewY()
- skew()
- matrix()

25. Transitions

- transition-delay
- transition-duration
- transition-property
- transition-timing-function
- transition

26. Animations

- @keyframes
- animation-name
- animation-duration
- animation-delay
- animation-iteration-count
- animation-direction
- animation-timing-function
- animation-fill-mode

- animation

27. Media Queries

- Media Query Syntax
- Media Types

28. CSS Functions

29. CSS Variables

Bootstrap

1. Bootstrap 5 Introduction
2. Containers
3. Grid Basic
4. Typography
5. Colors
6. Tables
7. Images
8. Jumbotron
9. Alerts
10. Buttons
11. Button Groups
12. Badges
13. Progress Bars
14. Spinners
15. Pagination
16. List Groups
17. Cards
18. Dropdowns
19. Collapse
20. Navs
21. Navbar
22. Carousel
23. Modal
24. Tooltip
25. Popover

- 26. Toast
- 27. Scrollspy
- 28. Offcanvas
- 29. Utilities
- 30. Flex
- 31. Forms
 - Select Menus
 - Checks and Radios
 - Range
 - Input Groups
 - Floating Labels
 - Form Validation

Javascript

- 1. Introduction
 - What JavaScript can do
 - History of JavaScript
 - Adding JS scripts to HTML Documents
 - Javascript Output
- 2. JavaScript Syntax & Statements
- 3. Variables
 - var
 - let
 - const
 - identifiers
 - assignment operator
 - data types
- 4. Operators
 - Arithmetic Operators
 - Comparison Operators
 - Logical Operators
 - Assignment Operators
 - Type Operators
 - Operator Precedence

5. JavaScript Functions

- Function Syntax
- Arrow Functions
- Function Invocation
- Function Return
- JavaScript Scope
- JavaScript Hoisting

6. JavaScript Objects

- Object Definition
- Object Properties
- Object Methods
- The `this` Keyword

7. JavaScript Reserved Words

8. JavaScript Strings

- Escape Character
- Strings as Objects
- String Methods
- Template Literals

9. JavaScript Numbers

- Precision
- Numeric Strings
- NaN - Not a Number
- Number bases
- Number Constructor
- Number Methods
- Number Properties

10. Arrays

- Creating Arrays
- Arrays Constructor
- Array Methods
- Difference Between Arrays and Objects
- Array Iteration
- Array Sorting
- Difference Between Arrays and Objects

11. Date Objects

- Date Constructor

- Date Formats
- Get Date Methods
- Set Date Methods

12. Math Object

- Math Methods

13. Conditional Statements

- if, else, and else if
- Switch Statement

14. Comparison and Logical Operators

- Ternary Operator
- Nullish Coalescing Operator
- Optional Chaining Operator

15. For Loop

- for
- for/in
- for/of
- while
- do/while
- break and continue

16. JavaScript Maps

17. JavaScript Sets

18. Iterables

19. JavaScript Regular Expressions & Expression Modifiers

20. JavaScript Errors

- Throw
- Try...Catch...Finally
- Error Name Values
- Error Object Properties

21. JavaScript Classes

- Class Syntax
- Class Properties
- Class Methods
- Class Inheritance
- Prototype Inheritance
- Factory Functions

22. JavaScript Modules

23. JavaScript Strict Mode

24. JavaScript JSON

25. JavaScript Coding Conventions and Best Practices

26. JavaScript Common Mistakes

27. More on ES6 and ESNext

28. JavaScript HTML DOM

- HTML DOM Tree of Objects
- Finding HTML Elements: Getters
- Modify HTML Element Property
- Navigating Between Nodes
- Creating and modifying Nodes
- DOM HTMLCollection Object and NodeList Object
- Modify HTML Element CSS
- Handling Forms
- Events
- Event Handlers

29. JavaScript BOM

- Window Object
- Screen Object
- Location Object
- History Object
- Navigation Object
- Pop-up Boxes
- Cookie Objects

30. JavaScript Web APIs

- Web Console API
- Web Storage API
- Web Workers API
- Web Fetch API
- Web Geolocation API

JQuery

1. JQuery Introduction

- Getting Started

- jQuery Syntax
- jQuery Selectors
- jQuery Events

2. jQuery Effects

- jQuery Hide/Show
- jQuery Fade
- jQuery Slide
- jQuery Animate
- jQuery stop()
- jQuery Callback
- jQuery Chaining

3. jQuery HTML

- jQuery Get
- jQuery Set
- jQuery Add
- jQuery Remove
- jQuery CSS Classes
- jQuery css()
- jQuery Dimensions

4. JQuery Traversing

- jQuery Traversing
- jQuery Ancestors
- jQuery Descendants
- jQuery Siblings
- jQuery Filtering

5. JQuery AJAX

6. JQuery noConflict()

7. JQuery Filters

PHP & MySQL

1. PHP Introduction

- What is PHP?
- PHP Installation
- Installing XAMPP

- Basic PHP Syntax
- Case Sensitivity
- PHP Comments

2. PHP Output

- echo
- print
- printf
- print_r
- var_dump
- Any content outside of the `<?php ?>` tags

3. Variables

- Creating (Declaring) Variables
- Constants
- Variable Scope
- Global Variables - Superglobals

4. Data Types

5. Strings and String Methods

6. Numbers and Number Methods

7. Arrays and Array Methods

- Arrays
- Indexed Arrays
- Associative Arrays
- Multidimensional Arrays

8. Operators

- Arithmetic Operators
- Comparison Operators
- Logical Operators
- Assignment Operators
- Ternary Operator
- Nullish Coalescing Operator
- Operator Precedence

9. Conditional Statements

- if, else, and else if
- Switch Statement

10. For Loop

- for

- for/in
- for/of
- while
- do/while
- break and continue

11. Functions

- Function Declaration
- Callback Functions

12. PHP Math Object

13. Regular Expressions

14. Form Handling

- GET vs. POST
- Validation and Filtering and Sanitization

15. Date and Time

- Date() Function
- mktime() Function
- Date From a String With strtotime()
- Get Date or Time
- Date() Function

16. Include/Require Files

17. File Upload

18. JSON in PHP

19. Errors/Exceptions

- Throw
- Try...Catch...Finally
- Error Name Values
- Error Object Properties

20. PHP OOP

- What is OOP
- Classes/Objects
- Constructor
- Destructor
- Access Modifiers
- Inheritance
- Constants

- Abstract Classes
- Interfaces
- Traits
- Static Methods
- Static Properties
- Namespaces
- Iterables

21. MySQL Database MySQL Database

- MySQL Database
- MySQL Connect
- MySQL Create DB
- MySQL Create Table
- MySQL Insert Data
- MySQL Get Last ID
- MySQL Insert Multiple
- MySQL Prepared
- MySQL Select Data
- MySQL Where
- MySQL Order By
- MySQL Delete Data
- MySQL Update Data
- MySQL Limit Data

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