

Overview

Front-end is visual and interactive aspects of a website. You will learn HTML, CSS and JavaScript to master front-end web development.

Objectives

- Understanding What is the Front-end.
- Learning How to Use HTML to Build a Professional Pages.
- Learning How to Use CSS to Enhance the Pages Styles.
- Learning How to Use Bootstrap 4 to Have better Styles and Effects.
- Learning How to Use Javascript to Control and Have more effects.

Duration

Total Days: 14 Days

Total Hours: 63 Hours

Session Duration: 4.5 Hour

Outline

Part 1: Intro to HTML and CSS

Part 2: HTML Fundamentals

Part 3: CSS

Part 4: Positioning

Part 5: Bootstrap 4

Part 6: HTML CSS Project

Methodology

Each student should apply on his PC, checking if the steps are correct or not.
a final project will be done and should be sent to the instructor as a part of the evaluation procedures.

Who Should Attend?

Anyone interested in, planning to learn, or already learning front-end web development. No previous experience required.

Agenda

Day: 1

Outline	From	To	Activities	Tools
Introduction	05:30 PM	05:45 PM	- What is the Back-end? - Introduction to HTML. - Introduction to CSS.	Discussion
HTML Basics	05:45 PM	06:15 PM	- HTML Editors. - HTML Documents Types. - HTML Tags. - View Source.	Create "Hello World" HTML file by Notepad
HTML Elements	06:15 PM	06:45 PM	- html element. - bode element. - h1 element. - p element.	Amend hello world file and add the mentioned tags
HTML Styles	06:45 PM	07:30 PM	- Background Color - Text Color - Fonts - Text Size - Text Alignment	Change "Hello World" file styles
Break	07:30 PM	08:00 PM	-	
HTML Formatting Elements	08:00 PM	08:50 PM	- Bold text - Important text - Italic text - Emphasized text - Marked text - Smaller text - Deleted text - Inserted text - Subscript text - Superscript text	Apply each element to "Hello World" file
HTML Quotation and Citation Elements	08:50 PM	09:30 PM	- Quotations - Short Quotations - Abbreviations - Contact Information - Work Title - Bi-Directional Override	Apply each element to "Hello World" file
HTML Comment Tags	09:30 PM	09:45 PM	- One line Comment - Multiple lines comment	Insert comment to the "Hello Word" file
Inline Style	09:45 PM	10:00 PM	- Change Text Color - Background Color	Change text colors

Day: 2

Outline	From	To	Activities	Tools
Inline Styles	05:30 PM	06:00 PM	- Font Family - Font Size - Border - Padding - Margin	Create new file and apply the HTML tags
Add Stylesheet	06:00 PM	06:30 PM	- Internal Stylesheet - External Stylesheet	Use both Stylesheets inside the HTML file
Images	06:30 PM	06:45 PM	- Syntax - Attributes - Width and Height - Animated Images - Floating	Add Image to the HTML file
HTML Links - Hyperlinks	06:45 PM	07:30 PM	- Syntax - Attributes - Absolute URLs vs. Relative URLs - Image as a Link - Link to an Email Address - Button as a Link - Link Titles	Add links to the HTML file
Break	07:30 PM	08:00 PM	-	
Image Map	08:00 PM	08:30 PM	- How Does it Work? - Create Image Map - The Areas - Shapes	Add Image and apply the image map
Background Image	08:30 PM	08:45 PM	- Insert Background Image - Repeat - Cover - Stretch	Add Background Image
Picture Elements	08:45 PM	09:00 PM	- When to use the Picture Element - Tag Details	
HTML Tables	09:00 PM	10:00 PM	- Define an HTML Table - Add Border - Add Cell Padding - Text Align - Merged Cell - Add Caption - Table Styles	Create new file, add Heading and Table below

Day: 3

Outline	From	To	Activities	Tools
Lists	05:30 PM	06:00 PM	- Unordered HTML List - Ordered HTML List - HTML Description Lists - HTML List Tags	Add Multi Lists Types to the HTML file
HTML Block and Inline Elements	06:00 PM	06:30 PM	- Block-level Elements - Inline Elements - Div Element - Span Element	Create Div and Span Tags
Classes	06:30 PM	07:00 PM	- Using The class Attribute - Syntax - Multiple Classes	Create Style Class and use to an element
HTML id Attribute	07:00 PM	07:30 PM	- Using The id Attribute - Difference Between Class and ID - HTML Bookmarks with ID and Links	Add ID to HTML element
Break	07:30 PM	08:00 PM	-	
Iframes	08:00 PM	08:30 PM	- Syntax - Set Height and Width - Remove the Border - Target for a Link	Add Google Search as Iframe inside the HTML file
Layout	08:30 PM	09:30 PM	- Layout Elements - Layout Techniques	Create New File with a specific layout.
Responsive Web Design	09:30 PM	10:00 PM	- What is Responsive Web Design? - Setting The Viewport - Responsive Images	Change the previous file to match the responsive tools

Day: 4

Outline	From	To	Activities	Tools
Responsive Web Design	05:30 PM	06:30 PM	- Show Different Images Depending on Browser Width - Responsive Text Size - Media Queries	Responsive Web Page - Full Example
Computer Code Elements	06:30 PM	07:00 PM	- Keyboard Input - Program Output - Computer Code - Variables	Apply Computer Code Elements in the HTML file
Semantic Elements	07:00 PM	07:30 PM	- What are Semantic Elements? - Section Element - Article Element - Footer Element - nav Element - aside Element - figure	Use different Semantic Elements to a new HTML file
Break	07:30 PM	08:00 PM	-	
Important Tips	08:00 PM	10:00 PM	- Declare Document Type - Use Lowercase Element Names - Close All HTML Elements - Use Lowercase Attribute Names - Always Quote Attribute Values - Always Specify alt, width, and height for Images - Spaces and Equal Signs - Avoid Long Code Lines - Blank Lines and Indentation - Never Skip the title Element - Omitting html and body? - Omitting head? - Close Empty HTML Elements? - Add the lang Attribute - Meta Data - Setting The Viewport - HTML Comments - Using Style Sheets	Discusion and Application to the last HTML file

Day: 5

Outline	From	To	Activities	Tools
CSS Syntax	05:30 PM	05:45 PM	- Selector and a declaration block - CS Selector	Discussion
CSS Comments	05:45 PM	06:00 PM	- Add a Comment	Discussion
CSS Color Names	06:00 PM	06:30 PM	- CSS Background Color - CSS Text Color - CSS Border Color - CSS Color Values	Apply colors to the HTML file by CSS
CSS Borders	06:30 PM	07:00 PM	- CSS Border Style	Create Several Borders Styles
Margins & Padding	07:00 PM	07:30 PM	- Use Margins - Use Paddings	Know the difference between Margins and Padding, apply both on the HTML file
Break	07:30 PM	08:00 PM	-	
CSS Height and Width	08:00 PM	08:30 PM	- CSS Setting height and width - CSS height and width Values - Setting max-width	Set the height and width of elements
CSS Box Model	08:30 PM	09:00 PM	- Box Model Parts - Width and Height of an Element	Create Box Model by CSS
CSS Outline	09:00 PM	09:30 PM	- CSS Outline Parts - CSS Outline Style	Create Outline Style to Text by CSS
CSS Text	09:30 PM	10:00 PM	- Alignment - Decoration - Transformation - Spacing - Shadow	Create Text Effects

Day: 6

Outline	From	To	Activities	Tools
CSS Fonts	05:30 PM	06:00 PM	- Web Safe Fonts - Font Fallbacks - Style - Size - Google Fonts - Pairings - Shorthand	Use different Fonts to the Texton the HTML file
CSS Icons	06:00 PM	06:30 PM	- Add Icons - Font Awesome Icons - Google Icons	Add Icons from Multi Sources by CSS to the HTML file
CSS Links	06:30 PM	07:00 PM	- Styling Links - Text Decoration - Background Color - Link Buttons	Ceate Links with Styles
CSS Lists	07:00 PM	07:30 PM	- Different List Item Markers - An Image as The List Item Marker - Position The List Item Markers - Remove Default Settings - List - Shorthand property - Styling List With Colors	Create different list-item markers for lists
Break	07:30 PM	08:00 PM	-	
CSS Tables	08:00 PM	09:00 PM	- Table Borders - Size - Alignment - Style - Responsive	Add Style to the HTML Table File
CSS Layout - The display Property	09:00 PM	09:30 PM	- Block-level Elements - Override The Default Display Value	Use The display Property
CSS Layout & Position	09:30 PM	10:00 PM	- Using width, max-width and margin - The position Property	Use Position and width-max property

Day: 7

Outline	From	To	Activities	Tools
CSS Layout - Overflow	05:30 PM	06:00 PM	- Overflow - Visible - Hidden & Scroll	Create Overflow Element with Different Properties.
CSS Layout - float and clear	06:00 PM	06:30 PM	- The float Property - Right & Left - Clear	Create Float Next To Each Other
display inline block	06:30 PM	06:45 PM	- Create Navigation Links	Create Navigation Links
Horizontal & Vertical Align	06:45 PM	07:30 PM	- Center Align Elements & Text - Center an Image - Left and Right Align - Using position & float - The clearfix Hack - Center Vertically - Using padding & line-height - Center Vertically - Using position & transform - Using Flexbox	Create Elements Alignment using different properties
Break	07:30 PM	08:00 PM	-	
CSS Combinators	08:00 PM	08:30 PM	- Descendant Selector - Child Selector - Adjacent Sibling Selector - General Sibling Selector	Selects all p elements inside div elements
CSS Pseudo-classes	08:30 PM	09:00 PM	- What are Pseudo-classes? - Syntax - Anchor Pseudo-classes - Pseudo-classes and CSS Classes - Hover	Apply to focus element
CSS Opacity / Transparency	09:00 PM	09:30 PM	- Transparent Image - Transparent Hover Effect - Transparent Box - Transparency using RGBA - Text in Transparent Box	Create Transparent Box and Image with Transparency
CSS Navigation Bar	09:30 PM	10:00 PM	- Vertical Navbar - Horizontal Navbar	Create Vertical & Horizontal Navbar to the HTML file

Day: 8

Outline	From	To	Activities	Tools
CSS Dropdowns	05:30 PM	06:00 PM	- Basic Dropdown - Dropdown Menu - Right-aligned Dropdown Content	How to add an image and other content inside the dropdown box
Image Sprites	06:00 PM	06:30 PM	- Why to use Image Sprites? - Image Sprites	Create a Navigation List
CSS Attribute Selectors	06:30 PM	07:00 PM	- attribute - Styling Forms	Styling forms without class or ID
CSS Forms	07:00 PM	07:30 PM	- Styling Input Fields - Padded Inputs - Bordered Inputs - Colored Inputs - Focused Inputs	
Break	07:30 PM	08:00 PM	-	
CSS Forms	08:00 PM	08:30 PM	- Input with icon/image - Animated Search Input - Styling Textareas - Styling Textareas - Styling Input Buttons - Responsive Form	Create Forms Styles
CSS Website Layout	08:30 PM	09:30 PM	- Header - Navigation Bar - Content	Create a new HTML with different parts, adding CSS style to each part
CSS The !important Rule	09:30 PM	10:00 PM	- What is !important? - Fair Uses of !important	Use !important to CSS element

Day: 9

Outline	From	To	Activities	Tools
Bootstrap 4 Get Started	05:30 PM	06:00 PM	- What is Bootstrap? - Why Use Bootstrap? - Where to Get Bootstrap 4?	Discussion
Bootstrap 4 Containers	06:00 PM	06:30 PM	- Fixed Container - Fluid Container - Container Padding - Container Border and Color - Responsive Containers	Creating Container by Bootstrap 4
Bootstrap 4 Grids	06:30 PM	07:00 PM	- Bootstrap 4 Grid System - Grid Classes - Basic Structure of a Bootstrap 4 Grid	Create Responsive Columns
Bootstrap 4 Text/Typography	07:00 PM	07:30 PM	- Bootstrap 4 Default Settings - Headings - More Elements	Use Typography Classes with HTML
Break	07:30 PM	08:00 PM	-	
Bootstrap 4 Colors	08:00 PM	08:30 PM	- Text Colors - Background Colors	Use Bootstrap 4 to change text and background HTML Colors
Bootstrap 4 Tables	08:30 PM	09:30 PM	- Bootstrap 4 Basic Table - Striped Rows - Hover Rows - More About Tables	Create different table styles and effects.
Bootstrap 4 Images	09:30 PM	10:00 PM	- Shapes - Aligning Images - Responsive	Create and use shapes and images styles

Day: 10

Outline	From	To	Activities	Tools
Bootstrap 4 Jumbotron	05:30 PM	06:00 PM	- Full-width Jumbotron	Use a div element with class .jumbotron to create a jumbotron
Bootstrap 4 Alerts	06:00 PM	06:30 PM	- Styles - Alert Links - Closing Alerts - Animated Alerts	Use .fade and .show classes adds a fading effect when closing the alert message
Bootstrap 4 Buttons	06:30 PM	07:30 PM	- Button Outline - Button Sizes - Block Level Buttons - Active/Disabled Buttons - Spinner Buttons - Button Groups	Create Button and group a series of buttons together (on a single line) in a button group.
Break	07:30 PM	08:00 PM	-	
Bootstrap 4 Badges	08:00 PM	08:30 PM	- Contextual Badges - Pill Badges - Badge inside an Element	Creating a badge inside a button
Bootstrap 4 Progress Bars	08:30 PM	09:00 PM	- Basic Progress Bar - Colored Progress Bars - Striped Progress Bars - Animated Progress Bar - Multiple Progress Bars	Create Several Progress Bars
Bootstrap 4 Spinners	09:00 PM	09:30 PM	- Spinners - Colors - Growing Spinners - Spinner Buttons	Use spinners in several cases
Bootstrap 4 Pagination	09:30 PM	10:00 PM	- Basic Pagination - Active State	Use .active class is used to "highlight" the current page

Day: 11

Outline	From	To	Activities	Tools
Bootstrap 4 List Groups	05:30 PM	06:00 PM	- Basic List Groups - Active State - List Group With Linked Items - Disabled Item - More controls	Combine .badge classes with utility/helper classes to add badges inside the list group
Bootstrap 4 Cards	06:00 PM	06:30 PM	- Basic Card - Header and Footer - Contextual Cards - Image, Titles, text, and links - More controls	Create a card to show person image, name, and contact details
Bootstrap 4 Dropdowns	06:30 PM	07:00 PM	- Basic Dropdown - Dropdown Divider - Header - Disable and Active items - Dropdown Position - More Controls	Create dropdown with multiple effects
Bootstrap 4 Forms	07:00 PM	07:30 PM	- Bootstrap 4 Stacked Form - Bootstrap Inline Form - Form Row/Grid - Form Validation	Create a form with style and data validation rules
Break	07:30 PM	08:00 PM	-	
Bootstrap 4 Form Inputs	08:00 PM	08:30 PM	- Bootstrap Input - Bootstrap Textarea - Bootstrap Checkboxes - Inline Checkboxes - More controls	Use the .form-check-inline class if you want the radio buttons to appear on the same line
Bootstrap 4 Carousel	08:30 PM	09:00 PM	- How To Create a Carousel - Add details to the Carousel	Create a Carousel
Bootstrap 4 Modal	09:00 PM	10:00 PM	- How To Create a Modal? - Add animation	Create a modal

Day: 12

Outline	From	To	Activities	Tools
JavaScript Introduction	05:30 PM	06:00 PM	- JavaScript and HTML Content	Discussion
JavaScript Structure	06:00 PM	06:30 PM	- Tags - Functions and Events - External JavaScript	Data Show
JavaScript Output	06:30 PM	07:00 PM	- innerHTML - document.write - window.alert - console.log - JavaScript Print	Print values by JS
JavaScript Statements	07:00 PM	07:30 PM	- Semicolons - White Space - Line Length and Line Breaks - Code Blocks - Keywords	Data Show and Discussion
Break	07:30 PM	08:00 PM	-	
JavaScript Syntax	08:00 PM	08:30 PM	- Values - Literals - Variables - Expressions and Operators - Keywords - Comments	Data Show
JavaScript Comments	08:30 PM	09:00 PM	- Single Line Comments - Multi-line Comments - Using Comments to Prevent Execution	Add comments to the HTML file
JavaScript Variables	09:00 PM	09:30 PM	- JavaScript Identifiers - Data Types - Declare Variable	Create Several types variables, change the values and print on the screen
JavaScript Let & Const	09:30 PM	10:00 PM	- Let structure and scope - Const structure and scope	Declare global variables

Day: 13

Outline	From	To	Activities	Tools
JavaScript Operators	05:30 PM	06:00 PM	- Arithmetic Operators - Assignment Operators - String Operators - Adding Strings and Numbers - Comparison Operators - Logical Operators - Type Operators - Bitwise Operators	Create alert with a simple calculation
JavaScript Functions	06:00 PM	06:30 PM	- Syntax - Function Invocation - Function Return	Create and use a simple function to calculate the area
JavaScript Objects	06:30 PM	07:00 PM	- Real Life Objects, Properties, and Methods - Object Definition - Object Properties - Object Methods	Alert Person Name by extracting information from the person object
JavaScript Events	07:00 PM	07:30 PM	- HTML Events	Handle and verify user input, user actions, and browser actions
Break	07:30 PM	08:00 PM	-	
JavaScript Strings	08:00 PM	08:30 PM	- String Length - Escape Character - String Methods	Use methods to control the output text
JavaScript Numbers	08:30 PM	09:00 PM	- Precision - Numeric Strings - Nan - Infinity - Number Methods	Return string to number
JavaScript Arrays	09:00 PM	09:30 PM	- What is an Array? - Creating an Array - Access the Elements of an Array - Changing an Array Element - Adding and Delete Array Elements - Methods	Create an Array and modify the elements inside
JavaScript Date Objects	09:30 PM	10:00 PM	- Creating Date Objects - JavaScript Stores Dates as Milliseconds - Methods - Displaying Dates	Create different date formats and output on the screen

Day: 14

Outline	From	To	Activities	Tools
JavaScript Booleans & Comparisons	05:30 PM	06:00 PM	- Comparisons and Conditions - Comparing Different Types	Return TRUE / FALSE from a Condition
JavaScript if else and else if	06:00 PM	06:30 PM	- If structure - Else structure - else if	Ask about the age and return "Baby, Kid, Boy or Man" depends on the age range
JavaScript For Loop	06:30 PM	07:30 PM	- Structure - For/Of and For/In Loops - While Loops - jumps out/jumps over	Write numbers from 1 to 10 using For Loop
Break	07:30 PM	08:00 PM	-	
JavaScript While Loop	08:00 PM	08:30 PM	- The Do/While Loop - Comparing For and While	Use While to write numbers from 1 to 10
JavaScript Errors - Throw and Try to Catch	08:30 PM	09:00 PM	- JavaScript try and catch - The throw Statement	Validation examples
Project	09:00 PM	10:00 PM	- Discuss Project Requirements - How to implement - Deadline and how to submit your project.	Create a mockup and convert to real website (front-end) using the HTML, CSS, Bootstrap 4 and JS