Website Development with HTML5, CSS and Bootstrap

Duration: 28 hours

Prerequisites: Basic personal computer skills and basic Internet knowledge.

Course Description: This hands on course provides a thorough introduction into the creation of a Website using HTML, CSS and Bootstrap. The course starts with thorough coverage of HTML and Cascading Style Sheets (CSS) and progresses to using the Bootstrap framework to create mobile-friendly websites.

Topics include use of HTML5 semantic tags, block-level and inline elements, creating links, ordered and unordered lists, creation of tables and forms. Students will learn to attach CSS to a page using several different techniques, CSS selectors and pseudo-classes, CSS box model, and a variety of CSS properties.

Students will learn how to create a Bootstrap page utilizing the grid system, implement commonly used components (such as dropdowns and navigation bars), use Bootstraps CSS classes to format page elements and use Bootstrap's plugins to add tabs, modals and accordions to a page.

Comprehensive hands on exercises are integrated throughout to reinforce learning and develop real competency.

Students Will Learn

- Creating a valid HTML document
- Using various tags to markup text
- Creating and using CSS to format the appearance of an HTML document
- Using HTML5 semantic elements to define the structure of a page
- Changing the appearance of elements in a document with type, id, class and attribute selectors
- Creating CSS3 effects such as drop shadows, text shadows and using custom fonts
- Creating ordered, unordered and description lists
- Displaying images on a Web page
- Creating hyperlinks using text or images
- Using the a tag to create anchors in a page
- Displaying information using an HTML table
- Including forms in an HTML document
- Adding video and audio to a Web page
- Building a Web page using the Bootstrap grid system
- Using Bootstrap to style links, buttons and form controls
- Adding components to a page such as dropdowns, thumbnails, alerts and glyphicons

Overview

HTML Fundamentals

- HTTP Requests and Responses
- Static vs. Dynamic Pages

Structuring an HTML Document

- Adding Headings
- Adding Paragraphs

- Tag and Attribute Fundamentals
- Document Structure
  - Understanding `<DOCTYPE>`
  - Creating a Page Title
  - Indicating the Character Set
  - `<head>` and `<body>` Tags
- Browser Support
  - HTML5 Shiv
  - CSS Reset
  - Conditional Comments
- Using Data Attributes

Formatting Text

- Using Inline Tags
  - `<b>`, `<i>`, `<strong>`, `<em>`
- Using the `<span>` and `<mark>` Tags
- Defining Inline Styles
  - Changing Text Color
  - Changing Font Characteristics
  - Changing Horizontal Alignment
- Using Character Entities

CSS Properties

- Text-Related Properties
  - `text-decoration`, `color`, `line-height`
- Font-Related Properties
  - `font-family`, `font-size`, `font-weight`
- Background-Related Properties
  - `background-color`, `background-image`, `background-position`
- Using `@font-face` to Add Custom Fonts
- Changing the Opacity of Text and Images
- Creating Rounded Corners, Adding Shadows to Boxes and Using Images as Borders
- Creating Simple Animations Using `transitions`, `transform`, and `animation`

CSS Selectors and Pseudo-Classes

- Relational Selectors
  - Descendant
  - Direct-Child
  - General Sibling
  - Adjacent Sibling

- Working with the `<div>` Tag
- Adding Quotes to a Page
- HTML5 Semantic Tags
  - `<header>`, `<footer>`, `<nav>`, `<article>`, `<section>`
- Defining Hyperlinks

Introduction to Cascading Style Sheets (CSS)

- Overview of Cascading Style Sheets (CSS)
- Creating CSS Rules
- Setting CSS Properties
  - Working with Colors
  - Units of Measurement (`px`, `em`, `%`)
  - Working with Fonts
- Defining Type Selectors
- Defining Class and ID Selectors
- Using Attribute Selectors
- Grouping and Combining Selectors
- Linking to External Style Sheets
- Embedded Style Sheets
- Overriding Styles with `!important`

CSS Box Model

- Positioning Elements
  - Static, Absolute and Relative
  - Controlling `z-index`
  - Floating and Clearing Elements
- Visual Effects
  - Setting `visibility` and `display`
  - Using `overflow` and `clip` Properties
  - Setting Vertical Alignment
- Box-Related Properties
  - `margin`, `padding`, `border`
- Setting the Size of an Element

Working with Lists

- Types of Lists
  - Ordered Lists
  - Unordered Lists
  - Description Lists
- Creating List Items Using the `<li>` Tag

Pseudo-Classes and Elements
    - Styling Links with `:link`, `:visited`, `:active`, `:hover`
    - Adding Content with `:before` and `:after`
- Attribute Selectors
    - "Starts With" Selector
    - "Ends With" Selector
    - "Contains" Selector
- Selecting the nth Element
- Selecting the nth of a Type

Adding Images to a Page

- Discussion of Common Image Formats
- Displaying Images on a Web Page
    - Using `src` and `alt` Attributes
    - Sizing an Image Using `width` and `height` Attributes
- Common Uses of Images
    - Image Thumbnails
    - Favicons
    - Image Rollovers
- Working with Client-Side Image Maps
- Using the `picture` Element to Create Responsive Images

Working with Forms

- Defining a Form
- Using Common Form Attributes
    - `action`, `method`, `enctype`, `autocomplete`, `novalidate`
- Input Elements
    - `email`, `url`, `tel`, `search`
- Form Validation
    - `pattern` and `required` Attributes
- Understanding Form Submission
- Adding `<label>` and `<fieldset>` Elements
- Single-line and Multi-line Text Fields
- Radio Buttons and Checkboxes
- Dropdown and Selection Lists
- Submit, Reset and Push Buttons
- Controlling Form Layout Using CSS and Tables

Bootstrap Overview

- Overview of Mobile First Design
- CSS3 Media Queries
- Downloading Bootstrap
- Customizing Bootstrap
- Adding Custom CSS to Bootstrap

Creating Nested Lists
- Using CSS to Style a List
- Using Lists to Create a Navigation Menu

Displaying Information in Tables

- Adding Tables to a Page
- Working with `<table>`, `<tr>`, `<td>`, `<th>` and `<caption>` Elements
- Creating Nested Tables
- Using CSS to Style a Table
    - Controlling Table Borders
    - `border-collapse` and `border-spacing` Properties
- Using `rowspan` and `colspan` Attributes

Audio and Video

- Browser Support for Audio/Video Formats
    - Supplying Fallbacks
- Creating Audio Effects with HTML5 `<audio>` Elements and Attributes
- Adding Video with HTML5 `<video>` Elements and Attributes
- `<source>` Elements

Bootstrap Grid System

- Working with Grids
- Defining Rows, Containers and Columns
- Offsetting Columns
- Creating Nested Columns
- Changing Column Order

Bootstrap Base CSS

- Overview of Bootstrap's Base CSS
- Using Helper Classes and Responsive Utilities
- Working with Typography Classes
- Formatting Lists
- Formatting Tables
  - Creating a Striped Table
  - Creating a Responsive Table
- Enhancing the Appearance of Forms
  - Displaying Inline Forms
  - Displaying Horizontal Forms
- Formatting Images
  - Creating Responsive Images
- Styling Links and Buttons

Bootstrap Components

- Overview of Bootstrap Components
- Using Glyphicons to Add Symbols to Buttons and Links
- Creating Dropdowns
- Creating Navigation
  - Tabbed Navigation
  - Pill Navigation
  - Navigation Bars
  - Collapsible Navigation Bars
  - Breadcrumbs
- Grouping Inputs, Buttons and Lists
- Formatting Page Headers
- Creating Panels
  - Grouping Panels
  - Creating a Thumbnail Gallery
- Creating Progress Bars and Alerts

Bootstrap Plugins

- Plugin Overview
- Creating Tabbed Navigation
- Creating a Slideshow Using the Carousel Plugin
- Using Accordions to Display a Large Amount of Content
- Adding a Dialog Box Using the Modal Plugin
- Displaying Secondary Information Using Popovers or Tooltips

Related Bootcamps

Track	Duration	Price
Microsoft .NET Developer: C#	161 hours	$4,475
Microsoft .NET Developer: VB.NET	147 hours	$4,475
Web Developer	119 hours	$3,580

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