



HTML/CSS/Bootstrap	24 Hours
SASS	12 Hours
JS / Typescript /OOP	15 Hours
React JS	30 Hours

HTML/CSS/Bootstrap

How the web works

- The internet versus the Web
- Serving Up your information
- A word about browsers
- Web Page Addresses (URLs)
- The Anatomy of a Web Page

Some Big Concepts You Need to Know

- A dizzying multitude of Devices
- Sticking with the standards
- Responsive Web Design
- One web for All (Accessibility)
- Site Performance
- Creating a Simple web page, Step by step
- Launch Text Editor
- Start with Content
- Give the Document Structure
- Identify Text Elements
- Add an Image
- Change the Look with a Style Sheet
- Validating Your Documents
- Marking up Text
- Paragraphs
- Heading
- Lists
- More Content Elements



- Organizing Page Content
- The Inline Element Roundup
- Generic Elements (div and span)
- Some special characters
- Putting It all Together

Adding Links

- The href Attribute
- Linking to Pages on the Web
- Linking within Your Own Site
- Targeting a New Browser window
- Mail Links
- Telephone Links

Adding Images

- First, a word on Image Formats
- The img Element
- A Window in a window (iframe)

Basic Table Markup

- How Tables Are Used
- Minimal Table Structure
- Table Headers
- Spanning Cells
- Table Accessibility
- Wrapping Up Tables

Forms

- How Forms Work
- The form Element
- Variables and Content
- The Great Form Control Round-up
- Form Accessibility Features
- Form Layout and Design

Cascading Style Sheets

- The Benefits of CSS
- How Style Sheets Work
- The Big Concepts
- Moving Forward with CSS





Formatting Text

- The Font Properties
- Changing Text Color
- A Few More Selector Types
- Text Line Adjustments
- Underlines and Other "Decorations"
- Changing Capitalization
- Spaced Out
- Text Shadow
- Changing Lists Bullets and Numbers

Colors and Backgrounds

- Specifying Color Values
- Foreground Color
- Background Color
- Playing with Opacity
- Introducing... Pseudo-class Selectors
- Pseudo-element Selectors
- Attribute Selectors
- Background Images
- Like a Rainbow (Gradients)
- The Shorthand background Property
- Finally, External Style Sheets

Thinking inside the Box

- The Element Box
- Specifying Box Dimensions
 - Padding
- Borders
- Margins
- Assigning Display Roles
- Adding Drop Shadows to Boxes
- The Box Model in Review

Floating and Positioning

- Normal Flow
- Floating
- Positioning Basics
- Relative Positioning
- Absolute Positioning



- Fixed Positioning

Page Layout with CSS

- Page Layout Strategies
- Page Layout Techniques
- Multicolumn Layouts Using Floats
- Positioned Layout
- Top-to-Bottom Column Backgrounds

CSS Techniques

- A Clean Slate (CSS Reset)
- Image Replacement Techniques
- CSS Sprites
- Styling Forms
- Styling Tables
- Wrapping Up Style Sheets

Web Graphics Basics

- Image Sources
- Meet the Formats
- Image Size and Resolution
- Working with Transparency
- PNG-8 "Alpha" Transparency
- Summing Up Images

Learn and Mean Web Graphics

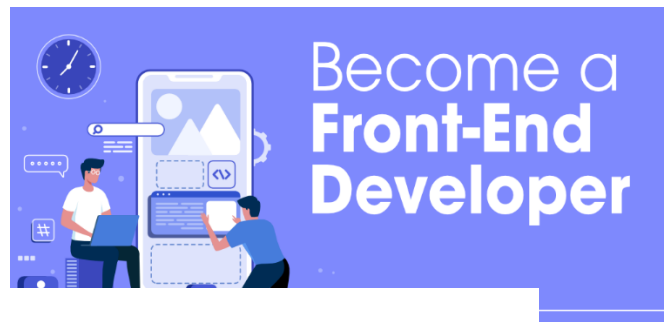
- General Optimization Strategies
- Optimizing GIFs
- Optimizing JPEGs
- Optimizing PNGs
- Carousel
- TypeaheadUsing Bootstrap
- Customizing Bootstrap
- Built with Bootstrap

SASS

1. Very Short Intro

1. CSS limitations
2. Less vs Sass





3. Community and improvement
2. **CSS Extensions**
 1. Nested Rules
 2. Referencing Parent Selectors: &
 3. Nested Properties
 4. Placeholder Selectors: %foo
3. **SassScript**
 1. Interactive Shell
 2. Variables: \$
 3. Data Types
 4. Operations
 5. Parentheses
 6. Functions
 7. Interpolation: #{}
 8. & in SassScript
 9. Variable Defaults: !default
4. **@-Rules and Directives**
 1. @import
 2. @media
 3. @extend
 4. @at-root
 5. @debug
 6. @warn
 7. @error
5. **Control Directives & Expressions**
 1. if()
 2. @if
 3. @for
 4. @each
 5. @while
6. **Mixin Directives**
 1. Defining a Mixin: @mixin
 2. Including a Mixin: @include
 3. Arguments
 4. Passing Content Blocks to a Mixin
7. **Function Directives**
8. **Output Style**
 1. :nested
 2. :expanded
 3. :compact
 4. :compressed
9. **Extending Sass**
 1. Defining Custom Sass Functions
 2. Cache Stores
 3. Custom Importers

JavaScript and TypeScript



- Introduction to web development and JavaScript
- How to create a JavaScript application
- How to test and debug a JavaScript application
- How to get input and displays output
- How to work with numbers, strings, dates
- How to code control statements
- How to create and use array
- How to create and use function
- How to create and use objects
- How to use regular expressions, handle exceptions, and validate data

Object Oriented JavaScript

- Object Oriented programming
- Object
- Classes
- Inheritance
- Polymorphism

React JS

1. Welcome to React

- Obstacles and Roadblocks
- React's Future
- Working with Files

i. React Developer Tools

ii. Installation Node JS

2. Emerging JavaScript

- Declaring Variable in ES6
- Arrow function
- Transpiling ES6



- ES6 Objects and Arrays
- Promises
- Classes
- 3. Pure React
 - Page Setup
 - The Virtual DOM
 - React Elements
 - React DOM
 - Children
 - Constructing Elements with Data
 - React Components
 - DOM rendering
- 4. React with JSX
 - React Elements as JSX
 - Babel
 - Intro to Webpack
- 5. Props, State and the Component Tree
 - Property Validation
 - Refs
 - React State Management
 - State within component Tree
- 6. Enhancing Components
 - Component Lifecycle
 - JavaScript Library Integration
 - Higher-Order Components
 - Flux



7. Redux

- State
- Actions
- Reducers
- The Store
- Action creators
- Middleware

8. React Redux

- Explicitly Passing the Store
- Passing Store via Context
- Presentation Versus Container Components
- The React Redux Provider
- React Redux Connect

9. React Router

- Incorporating the Router
- Nesting Routes
- Route Parameters

10. React on the Server