



TECHNOCATION FREELANCING TRAINING INSTITUTE & SOFTWARE HOUSE

Professional SASS (Syntactically Awesome Stylesheets) Course Outline

Module 1: Introduction to SASS

- What is SASS? (Features & Benefits)
 - SASS vs. CSS: Why Use SASS?
 - Installing SASS (CLI, Node.js, Preprocessors)
 - Compiling SASS to CSS (Command Line, GUI Tools, VS Code Extensions)
 - Setting Up a SASS Development Environment
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Module 2: SASS Fundamentals

- Understanding SASS Syntax (`.scss` vs. `.sass`)
 - Nesting Selectors (Organizing Styles Efficiently)
 - Variables in SASS (`$color-primary`, `$font-size`)
 - Data Types in SASS (Strings, Numbers, Colors, Booleans)
 - Using `@import` & `@use` to Manage Stylesheets
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Module 3: Advanced SASS Features

- Partials & Modular CSS Architecture
 - Mixins (`@mixin`, `@include`) for Code Reusability
 - Functions & Built-in SASS Functions (`lighten()`, `darken()`, math operations)
 - Extending & Inheritance (`@extend`, `%placeholder`)
 - Control Directives (`@if`, `@for`, `@each`, `@while`) for Dynamic Styles
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Module 4: Responsive Design & SASS

- Using Mixins for Media Queries
 - Mobile-First vs. Desktop-First Approach
 - Breakpoints & Fluid Grid System
 - Implementing Dark Mode with SASS Variables
 - Creating a Scalable Responsive Design System
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Module 5: SASS & CSS Frameworks

- Using SASS with Bootstrap & Tailwind CSS
 - Customizing Bootstrap with SASS Variables
 - Integrating SASS with Material UI
 - Best Practices for Maintaining Large SASS Projects
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Module 6: SASS Optimization & Best Practices

- Structuring Large SASS Projects (7-1 Pattern, ITCSS, BEM)
 - Reducing CSS Output & File Size Optimization
 - Minifying & Autoprefixing with SASS
 - Debugging & Error Handling in SASS
 - Performance Optimization for Faster Load Times
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Module 7: Real-World Projects with SASS

- Building a Custom Design System with SASS
 - Creating a Responsive Portfolio Website
 - Developing a Modern Landing Page with SASS & Flexbox/Grid
 - Implementing a Theming System for Web Applications
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Module 8: Deploying & Using SASS in Production

- Integrating SASS with Webpack & Gulp
- Using SASS in a React, Vue, or Angular Project
- Best Practices for SASS in a Team Environment
- Deploying SASS-Optimized Websites to Hosting Platforms

