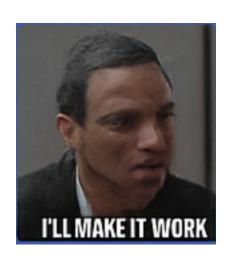


Agenda

- 1. Introduction to Front-End Development
- 2. HTML Fundamentals
- 3. CSS Overview
- 4. Bootstrap Framework
- 5. SCSS Preprocessor
- 6. Comparison on CSS vs SCSS
- 7. Future Trends & Conclusion



Introduction to Front-End Development

- Definition: Creating visual elements of a website users interact with.
- Core Goals:
- Enhance User Experience
- Ensure Responsiveness
- Improve Accessibility
- Maintain Performance



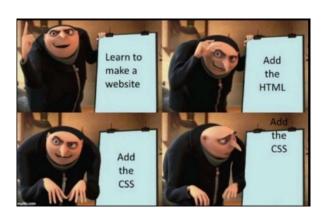
What is HTML?

- HyperText Markup Language structures web content.
- Defines headings, paragraphs, links, images, tables and forms.

Core HTML Concepts

- HTML Tags & Attributes
- Semantic Elements (<header>, <footer>,
 <article>)
- Forms & Input Elements
- Multimedia: <audio>, <video>
- Linking External Resources

What is CSS?

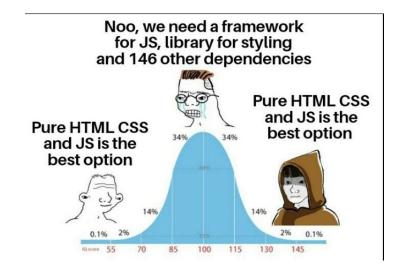


- CSS styles and formats web content.
- Controls layout, color, typography, spacing, and animations.
- Works with HTML for responsive and aesthetic designs.

Core CSS Concepts

- Selectors, Properties, Values
- Box Model: margin, border, padding, content
- Positioning: relative, absolute, fixed
- Flexbox & Grid Layouts
- Media Queries for Responsiveness

Advanced CSS Features



- CSS Variables
- Transitions & Animations
- Pseudo-classes & Pseudo-elements
- Custom Fonts (Google Fonts)
- Dark Mode Styling

What is Bootstrap?



- Open-source front-end framework.
- Pre-designed components + responsive grid system.
- Simplifies UI development and ensures browser consistency.

Key Bootstrap Components

- Grid System (12-column layout)
- Navbar, Cards, Buttons, Forms
- Modals, Alerts, Carousels
- Utility Classes: spacing, colors, typography

What is SCSS (SASS)?

- Preprocessor scripting language extending CSS.
- Adds variables, nesting, mixins, and functions.
- Compiled into regular CSS.

SCSS Features & Advantages

- Variables for consistent styling
- Nesting for cleaner syntax
- Partials & Imports for modular code
- Mixins for reusability
- Inheritance & Functions

CSS vs SCSS

- CSS: Simple, direct, but limited structure.
- SCSS: Programming-like capabilities, efficient, maintainable.

Conclusion & Future Trends

- HTML, CSS, Bootstrap, SCSS = foundation of UI.
- Future trends: CSS Grid Level 3, Container Queries, Variable Fonts, AIdriven design tools.
- Quote: "Great UI is where design meets technology seamlessly."

