Documentation for Eduford University Front-End Codebase

This documentation covers all major code files for the Eduford University website. Each file serves a specific role to provide a modern, responsive, and visually appealing educational site. Below you'll find descriptions, structure, and highlights for each file.

`style.scss` — The Main SCSS Source

This file contains the source styles for the website, written in **SCSS** (Sass). SCSS allows for nesting, variables, and more readable code. It is compiled into standard CSS for browsers to understand.

Key Features

- **Variables** for colors (`$primary-color`, `$text-gray`)
- **Typography** imported from Google Fonts (Poppins)
- **Nesting** for organized selectors
- **Responsiveness** with several media queries
- **Section-specific styles** for hero, courses, campus, facilities, testimonials, calls-to-action, and forms
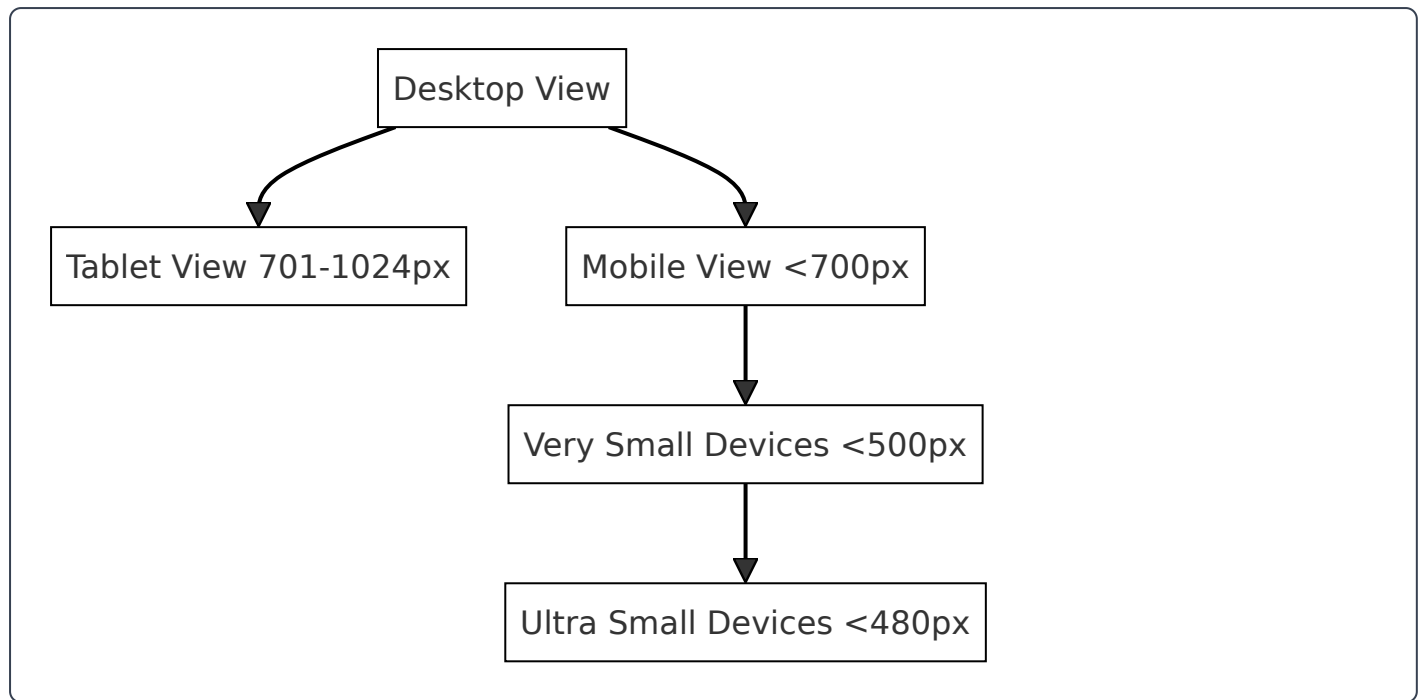
Example Code Snippet

```scss
1   $primary-color: #f44336;
2   $text-gray: #777;
3
4   .header {
5     min-height: 100vh;
6     width: 100%;
7     background-image: linear-gradient(
8       rgba(4, 9, 30, 0.7),
9       rgba(4, 9, 30, 0.7)
10    ), url(/images/banner.png);
11    background-position: center;
12    background-size: cover;
13    position: relative;
14  }
```

Main Sections & Purpose

- **Header & Navigation**: Sets up the hero area and navigation styling.
- **Marquee**: Styles for the admission notification at the top.
- **Courses, Campus, Facilities**: Card-based layouts for core site sections.
- **Testimonials**: Review cards with star ratings.
- **CTA (Call-to-Action)**: Prominent banner for enrollment.
- **Form Styling**: Admission form with custom inputs, select, button, and error/success messages.
- **Footer**: About, social icons, and credits.
- **Responsiveness**: Multiple breakpoints for mobile and tablet layouts.

Responsive Design Flow

```
                        ┌─────────────────┐
                        │  Desktop View   │
                        └─────────────────┘
                          ╱             ╲
                         ╱               ╲
                        ▼                 ▼
        ┌──────────────────────┐  ┌──────────────────────┐
        │ Tablet View 701-1024px│  │ Mobile View <700px   │
        └──────────────────────┘  └──────────────────────┘
                                            │
                                            ▼
                                  ┌──────────────────────────┐
                                  │ Very Small Devices <500px │
                                  └──────────────────────────┘
                                            │
                                            ▼
                                  ┌──────────────────────────┐
                                  │ Ultra Small Devices <480px│
                                  └──────────────────────────┘
```

Notable Techniques

- **Nesting & BEM**-like structure for clarity
- **SCSS Variables** for easy color and font adjustments
- **Hover Effects** with smooth transitions
- **Mobile Navigation**: Hides navigation links behind icons on small screens
- **Consistent Button Styling** throughout sections

`style.css` — Compiled CSS

This is the **compiled CSS** file from `style.scss`. Browsers use this file directly.

Purpose

- Makes the site visually appealing and consistent.
- Provides layout, color, spacing, font, and interaction rules.
- Ensures responsiveness on all device sizes.

Structure

Section	Purpose
`*` , `.header`	Base reset and hero/landing area
`.marquee`	Top notification bar styling
`nav` , `.nav-links`	Desktop and mobile navigation
`.text-box`	Centralizes hero text
`.course` , `.course-col`	Card grids for courses
`.campus`	Global campus section, image overlays
`.facilities`	Facilities cards
`.testimonials`	Testimonial cards with star icons
`.cta`	Call-to-action full-width section
`.form` , `.admission-form`	Styled input forms and error messages
`.footer`	About, icon bar, and credits
`.icons` , `.fa-heart`	Social icons and heart color
Media Queries	Special layout tweaks for different screen widths

Example: Mobile Navigation Change

```
1   @media (max-width: 700px) {
2     .nav-links {
3       position: fixed;
4       background: #f44336;
5       height: 100vh;
6       width: 200px;
7       top: 0;
8       right: -200px;
9       text-align: left;
10      z-index: 999;
11      transition: 0.5s ease;
12    }
13    .fa-bars,
14    .fa-xmark {
15      display: block;
16      color: #fff;
17      font-size: 22px;
18      cursor: pointer;
19      padding: 10px;
20    }
21  }
```

`style.css.map` — Source Map for Debugging

Source maps link the compiled CSS back to the original SCSS source, which helps developers debug using browser dev tools.

What It Contains

- **Mapping information**: Connects each CSS rule to its original SCSS line.
- **File references**: Lists the original SCSS and resulting CSS files.
- **No visual output**: Used only by dev tools.

Example Excerpt

```
1  {
2    "version":3,
3    "sources":["style.scss","style.css"],
4    "file":"style.css",
5    "mappings":"AAAQ,4EAAA;AAKR;EACE,SAAA;..."
6  }
```

Why Use Source Maps?

- **Easier debugging**: See which SCSS line generated a given CSS rule.
- **Improved developer experience**: Fix issues faster.
- **Transparency**: Know exactly where styles come from.

`package.json` — Node Project Metadata

This file indicates that the project uses **Node.js** tooling (probably for Sass compilation).

Key Fields

Field	Description
`name`	Project name ("task-8")
`version`	Project version (1.0.0)
`main`	Entry point JS file (not used here)
`scripts`	Defines a test script (placeholder)
`keywords`	Empty list (can be extended for discoverability)
`author`	Empty
`license`	"ISC", a popular open-source license
`type`	"commonjs", standard module system

Example

```
 1  {
 2    "name": "task-8",
 3    "version": "1.0.0",
 4    "description": "",
 5    "main": "index.js",
 6    "scripts": {
 7      "test": "echo \"Error: no test specified\" && exit 1"
 8    },
 9    "keywords": [],
10    "author": "",
11    "license": "ISC",
12    "type": "commonjs"
13  }
```

Usage

- **Tooling**: Likely used to manage Sass compilation or other build steps.
- **Expandability**: Add more scripts or dependencies as the project grows.

`index.html` — The Main Website Structure

This file contains the **HTML markup** for your university website. It defines all visible content and structure.

Head Section

- **Meta tags**: For charset, viewport, description, and keywords.
- **Title**: "Eduford University"
- **Font Import**: Preconnects to FontAwesome CDN and includes Google Fonts.
- **CSS**: Loads `style.css` for styling.
- **Font Awesome JS**: For icons.

Main Body Layout

Section	Content
`.marquee`	Admission notice at the top (animated marquee)
`.header`	Hero section with nav, logo, hero text, CTA buttons
`.course`	Three-card layout of Courses Offered
`.campus`	Showcases three campuses (London, New York, Washington)
`.facilities`	Features: Library, Playground, Cafeteria
`.testimonials`	Student feedback with star ratings and photos
`.cta`	Call to action for online course enrollment
`.form`	Admission inquiry form (name, email, course, etc.)
`.footer`	About, social icons, credits

Sample Structure Excerpt

```
1   <nav>
2     <a href="index.html">
3       <img src="images/logo.png" />
4     </a>
5     <div class="nav-links">
6       <i class="fa-solid fa-xmark"></i>
7       <ul>
8         <li><a href="#hero">HOME</a></li>
9         <li><a href="#course">COURSE</a></li>
10        <li><a href="#about">ABOUT</a></li>
11        <li><a href="#testimonials">BLOG</a></li>
12        <li><a href="#apply">CONTACT</a></li>
13      </ul>
14    </div>
15    <i class="fa-solid fa-bars"></i>
16  </nav>
```
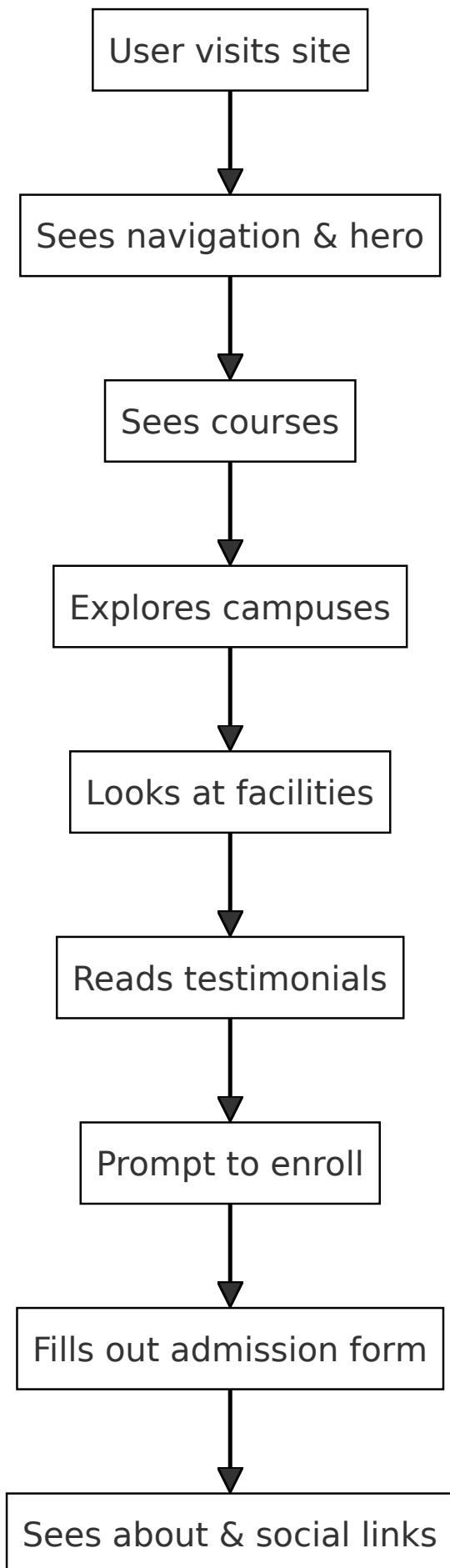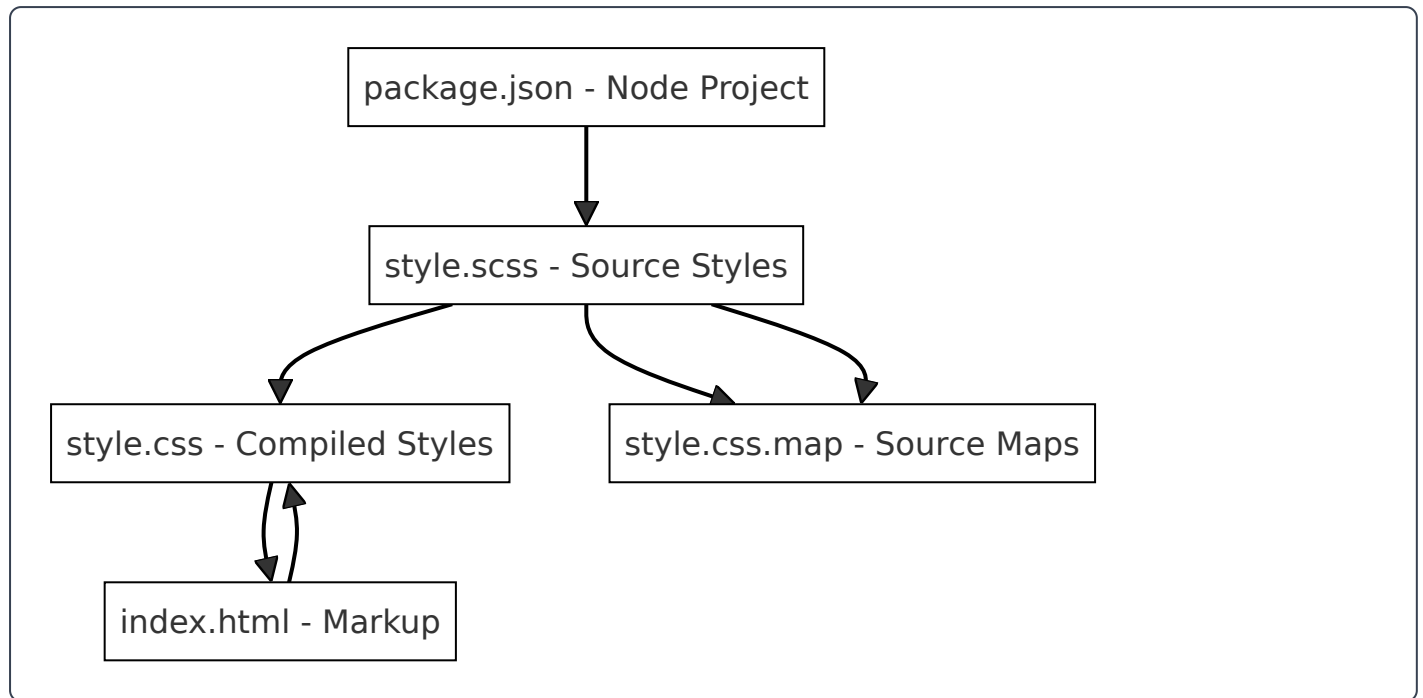
Interactive Elements

- **Navigation** with responsive hamburger menu for mobile.
- **Marquee** for time-sensitive admission info.
- **Form** with required fields and checkboxes (client-side validation via HTML).
- **Buttons** and links for calls-to-action.
- **Font Awesome Icons** for social and decorative icons.

User Flow Overview

```
┌─────────────────────┐
│   User visits site   │
└─────────────────────┘
           │
           ▼
┌─────────────────────┐
│  Sees navigation &   │
│        hero          │
└─────────────────────┘
           │
           ▼
┌─────────────────────┐
│     Sees courses     │
└─────────────────────┘
           │
           ▼
┌─────────────────────┐
│  Explores campuses   │
└─────────────────────┘
           │
           ▼
┌─────────────────────┐
│  Looks at facilities │
└─────────────────────┘
           │
           ▼
┌─────────────────────┐
│  Reads testimonials  │
└─────────────────────┘
           │
           ▼
┌─────────────────────┐
│   Prompt to enroll   │
└─────────────────────┘
           │
           ▼
┌─────────────────────┐
│ Fills out admission  │
│        form          │
└─────────────────────┘
           │
           ▼
┌─────────────────────┐
│ Sees about & social  │
│        links         │
└─────────────────────┘
```

File Relationships Overview

```
         ┌──────────────────────────────┐
         │ package.json - Node Project  │
         └──────────────────────────────┘
                        │
                        ▼
         ┌──────────────────────────────┐
         │  style.scss - Source Styles  │
         └──────────────────────────────┘
            │                      │
            ▼                      ▼
┌──────────────────────────┐  ┌──────────────────────────────┐
│ style.css - Compiled     │  │ style.css.map - Source Maps  │
│ Styles                   │  └──────────────────────────────┘
└──────────────────────────┘
        │  ▲
        ▼  │
   ┌──────────────────────────┐
   │  index.html - Markup     │
   └──────────────────────────┘
```

Cards & Highlights

Responsiveness
The website adapts to mobile, tablet, and desktop screens using media queries and flexible layouts.

SCSS Advantage
Using SCSS improves maintainability, readability, and allows the use of variables and nesting.

Source Maps
Source maps help developers debug styles by mapping compiled CSS back to the SCSS source.

Summary Table

File	Role / Content	Main Purpose
`style.scss`	SCSS source with variables, nesting, responsive	Developer-friendly style source
`style.css`	Compiled CSS	Browser-ready styles
`style.css.map`	Source map for debugging	Links CSS to SCSS for dev tools
`package.json`	Node project metadata and scripts	Tooling configuration
`index.html`	HTML markup, links to assets, all UI sections	Website content and structure

Best Practices & Recommendations

- **Always edit styles in** `style.scss` for maintainability.
- **Keep** `style.css` **and** `style.css.map` in sync with SCSS via build tools.
- **Use** `package.json` to add future scripts (e.g., for automatic Sass compilation).
- **Test responsive layout** on various devices to ensure accessibility.
- **Keep assets (images, icons) organized** for easier management.

☐ Conclusion

This codebase is well-structured for a modern educational site with strong visual design and user experience. The use of SCSS, source maps, and responsive CSS ensures maintainability and scalability. All files work together to create an engaging site for students and visitors.