**TradeMaster Website Documentation**

**Website Structure**

The website is built with semantic **HTML** for content structure, **CSS** for styling and layout, and **JavaScript** for interactivity and accessibility enhancements.

**1. HTML Explanation**

**File structure overview:**

* index.html — Home page (not shown but assumed)
* about.html — About TradeMaster company and mission
* services.html — Details on the different trading services
* contact.html — Contact form and contact info

**Key HTML components**

**Header**

* Contains the site logo (TradeMaster) with stylized text and an optional logo image.
* Navigation bar (<nav>) with links to Home, About Us, Services, and Contact Us.
* Authentication buttons: Login and Sign up.
* Responsive navigation toggle button (hamburger menu) for mobile devices.

**Sections (Example: Services page)**

* Sections are organized using <section> elements with clear ids.
* Each service (Crypto, Stocks, Forex, Commodities) is presented inside a. service-card with headings and descriptive paragraphs.
* Footer includes company info, services links, social media icons, and contact details.

**Accessibility Features in HTML**

* Use of aria-label, aria-current attributes for better screen reader navigation.
* Navigation lists marked with roles and aria attributes in JavaScript (described later).

**2. CSS Explanation (style.css)**

**Reset and base styles**

* Resets default browser styles (margin, padding, box-sizing) for consistency.
* Base font family, background colour, and default text colour.

**Layout and typography**

* Responsive container width set to max 1200px.
* Flexible grid layouts for markets, services, features, and testimonials using CSS Grid.
* Typography settings for headings, paragraphs, and buttons.

**Header and Navigation**

* Dark background for the header with white text.
* Navigation links styled with hover and active states.
* Responsive nav buttons with hover effects.
* Floating auth buttons aligned right in desktop, stacked on mobile.

**Buttons**

* Primary and secondary button styles (e.g., red for call-to-action).
* Rounded corners, padding, and hover transitions.

**Sections**

* Well-spaced sections with consistent padding.
* Service cards styled with shadows, rounded corners, and hover lifts for better UX.

**Footer**

* Dark footer with white text and red highlights.
* Social icons spaced with hover colour transitions.
* Footer columns float left on desktop, stack on mobile.

**Responsive design**

* Media queries handle mobile and tablet views:
  + Nav stacks vertically.
  + Service cards collapse to single column.
  + Smaller font sizes and button padding.

**Accessibility**

* .sr-only class for screen-reader-only elements (used in JS live region alerts).

**3. JavaScript Explanation (script.js)**

The JavaScript enhances user interactivity, accessibility, and responsive behaviours.

**Main Functionalities:**

**Button Alerts**

* Adds click listeners to Login and Signup buttons showing alert messages like "Login feature coming soon".

**Smooth Scroll**

* Intercepts anchor link clicks with href starting with # and smoothly scrolls to the target section.

**Navigation Active Link Highlighting**

* Highlights the navigation link that matches the current page URL.
* Dynamically highlights links based on scroll position in the page sections.

**Sticky Header**

* Adds a. sticky class to the header once the user scrolls beyond 50 pixels to keep the header fixed or styled differently.

**Responsive Navigation Toggle**

* Toggles. active class on the navigation menu when the hamburger button is clicked.
* Updates ARIA attributes for accessibility (aria-expanded).
* Supports keyboard navigation and closes menu when clicking outside or pressing Escape.

**Accessibility Enhancements**

* Sets roles and ARIA labels on nav elements for screen readers.
* Adds a hidden live region (aria-live) for announcing navigation changes.
* Keyboard navigation support on nav links (Enter and Space keys trigger navigation).

**Scroll Throttling**

* Uses request Animation Frame and a ticking flag to optimize scroll event handlers for better performance.

**Summary of Code Purpose**

| **File** | **Purpose** |
| --- | --- |
| index.html | Landing/home page with hero, market info, CTA buttons |
| about.html | Company info and mission statement |
| services.html | Detailed description of trading services |
| contact.html | Contact form and company contact information |
| style.css | Site-wide styling including responsive layouts and effects |
| script.js | Interactivity: alerts, smooth scrolling, sticky header, responsive nav toggle, accessibility improvements |