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JavaScript Form Enhancement Project

# Introduction

This document outlines the JavaScript Form Enhancement Project, focusing on improving form validation, DOM manipulation, and error handling. The project includes form enhancement with dialog boxes and custom validation, as well as detailed error tracing.

# Code Implementation

## 1. Index.html

The index.html file contains the HTML structure of the form, integrating Bootstrap for styling, and links to external JavaScript files for form validation, DOM manipulation, and error handling.

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## 2. Style.css

The style.css file applies custom styles to the form, including background colors, padding, borders, and box shadows. It enhances the form's appearance alongside Bootstrap's default responsive design elements.

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## 3. FormEnhancement.js

## This JavaScript file contains the logic for handling form validation, including custom error messages and dialog boxes to confirm form submission. The form is checked for valid inputs, and custom alerts are triggered when fields are not filled properly.

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**4. ErrorTracing.js**

The ErrorTracing.js file logs validation errors and successful inputs to the browser's console. It tracks errors such as missing names or invalid email formats, assisting with debugging and troubleshooting.

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**Output:**

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**5. DOMManipulation.js**

The DOMManipulation.js file dynamically updates the page by changing the heading text and color after the DOM is fully loaded. It ensures real-time manipulation of HTML elements for a better user experience.

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**Output:**

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