**Project: CRUD System for Product Management**

**Description:** Developed a robust CRUD (Create, Retrieve, Update, Delete) system for managing product information. This system allows users to perform essential data operations on a product list, providing a seamless interface for adding, updating, searching, and deleting products.

**Key Features:**

1. **Create:**
   * Form inputs for product name, price, category, description, and image.
   * Real-time validation for all inputs ensuring data integrity.
   * Dynamic addition of products to the product list.
2. **Retrieve:**
   * Display of product details in a tabular format.
   * Search functionality to filter products by name.
3. **Update:**
   * Functionality to pre-fill form inputs with existing product data for easy updates.
   * Real-time validation during updates.
   * Dynamic update of product details in the product list.
4. **Delete:**
   * Capability to remove products from the list.
   * Confirmation prompts to prevent accidental deletions.
5. **Search:**
   * Efficient search mechanism to filter products by name.
   * Real-time display of search results as the user types.

**Technologies Used:**

* **HTML5:** Structured the content of the web pages.
* **CSS3:** Styled the application using Bootstrap for responsive design and custom CSS for unique styling.
* **JavaScript:** Handled form validation, data operations (CRUD), and user interactions.
* **Bootstrap:** Provided responsive design and styled UI components.
* **Local Storage:** Stored and retrieved product data to ensure data persistence across sessions.

**Roles and Responsibilities:**

* Designed and implemented the user interface for product management.
* Developed JavaScript functions to handle CRUD operations.
* Ensured form inputs are validated in real-time to prevent incorrect data entry.
* Implemented local storage to save product data between sessions.
* Created a responsive design to ensure accessibility on various devices.

**Outcome:** Successfully created a user-friendly CRUD system that allows efficient management of product information. The system is designed to be easily extendable and integrated into larger applications requiring product data management capabilities.