**Student Registration System – Project Document**

**Project Description:**

The Student Registration System is a web-based application designed to simplify the process of registering students and managing their basic details. This project allows users to input student information such as name, email, contact number, student ID, and address, and then stores this data locally using the browser’s localStorage. Registered students are displayed in a responsive table with an option to delete and edit entries when needed.

**Key Features:**

* **Student Registration Form** with validation.
* **Data Storage** using browser localStorage.
* **Real-time Table Display** of registered students.
* **Delete Functionality** to remove students from the list and local storage.
* **Edit Functionality** to edit students from the list and local storage.
* **Navigation Buttons** to switch between pages like Home, Registration, and Student Data.
* **Responsive Design** using **Tailwind CSS**, ensuring accessibility across all devices.

**Technologies Used:**

* **HTML** – For page structure and content.
* **Tailwind CSS** – For responsive styling and layout.
* **JavaScript** – For form handling, validations, storage, and dynamic DOM manipulation.
* **LocalStorage** – To persist user data without a backend.

**Pages in the Project:**

1. **index.html** – Homepage with navigation.
2. **Registration.html** – Form to register a student.
3. **studentData.html** – Displays all registered student data in a table.

**Use Cases:**

* Small coaching centers or schools can use this system to keep track of enrolled students.

**How I Made the Student Registration System Project**

**1. Planning the Project**

Before starting the code, I planned the basic flow:

* A **form** to collect student details.
* A way to **store** those details ( localStorage).
* A **display table** to show the registered students.
* Options to **delete** students.
* Basic **page navigation** between Registration and Student Data.

**2. Setting Up the HTML Structure**

* I created **three HTML pages**:
  + index.html – Home page
  + Registration.html – For adding student info
  + studentData.html – To view all registered students

Each page used clean HTML5 structure and included Tailwind CSS via CDN for quick styling.

**3. Adding Tailwind CSS for Responsiveness**

* Used Tailwind CSS utility classes to make all elements responsive
* Buttons, forms, and tables were styled with Tailwind for consistency and responsiveness across devices.

**4. Creating the Registration Form**

* The form included inputs for:
  + Name, Email, Contact, Student ID, Address
* Assigned **unique ids and class names** to each input.
* Added  **validation** using JavaScript .

**5. Writing JavaScript for Functionality**

* On form submission:
  + Collected values using document.getElementById()
  + Created a student object
  + Pushed it to an array of students
  + Stored the array in localStorage using JSON.stringify()
* Used localStorage.getItem() and JSON.parse() to retrieve and display saved data.

**6. Displaying Students in a Table**

* On studentData.html, I used:
  + window.onload to load all students from localStorage
  + Dynamically created table rows with student data using innerHTML
  + A delete button for each row

**7. Delete Functionality**

* Each row had a delete button that:
  + Removed the row from the DOM
  + Filtered out the student from the array
  + Updated localStorage with the new list

**🔹 8. Navigation Between Pages**

* Used addEventListener on buttons like "Back to Home" or "Register" to navigate between pages using window.location.href.

**🔹 9. Edit Functionality**

* Each row had a edit button that:
  + Edit the row in LocalStorage
  + Updated localStorage with the new Data