ETF - ASSIGNMENT 02

Patient Management System

Group: 13
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Group details

SA No.	Name of the Member	Work Done by Member
SA24610652	**M. A. Pathirana**	Back End (REST API) with Node
SA24610735	**J. A. N. C. Jayakody**	Ajax (Fetch data from the server)
SA24610653	**H. A. S. Shevinu**	Front End + jQuery
SA24610678	**A. W. M. T Henuka**	Back End (REST API) with Node
SA24610733	**G. T. K. Silva**	Front End + jQuery
SA24610751	**B. B. D. Kumara**	Ajax (Fetch data from the server)

Content Page

1. Project Overview

Purpose of the system.

This project is a web based Patient Management System for a hospital. Developed for simplifying and digitalizing the process of handling patient records more effectively and efficiently. Allows the users of the system to add, search, view and update/delete patient records through an interactive user friendly UI.

Technologies implemented for this project:

1. Front-End
   - **HTML5** - Structure of all web pages
   - **CSS3 / Bootstrap 5.3** - Styling and responsive layout
   - **jQuery 3.7** - DOM manipulation, event handling, data validation.
   - **AJAX** - Handles asynchronous data fetching from the server.
   - **NodeJS** - Manages the REST API and client-server communication.

2. Data Handling
   - **JSON -** Used for exchanging patient data with the REST API
   - **REST API -** Allows to perform operations like retrieving, updating, or deleting patient data.
   - **MongoDB -** NoSQL database used to store the patient data.

3. User Interface Enhancements
   - **Bootstrap Components** – Navbar, buttons, tables, forms
   - **Dark Mode Toggle** – Implemented using jQuery
   - **Form Validation** – Real-time input validation with jQuery

2. How to Use The System

Step 01 - Add a new patient

Users will be able to add new patients to the system.

- Open the index.html file which takes the user to the home(index) page, which contains the "Add new patient form."
- Fill in all the required patient details of the form.
- After ensuring the entered details are valid, click the "Add Patient" button.
- Form will validate the user input and if so, new patient details will be added. If not, the system will display an error message and ask the user to re-enter the details required.

Step 02 - View All patients

Users will be able to view all saved patient details from the system.

- Use the navigation bar and navigate to the "View patients" section.
- Users will be able to see all saved/stored details of the patients.
- *Optional: click the 'refresh button' to refresh the table and get the up to date details of the patients.*

Step 03 - search for a patient

Users can search a patient by selecting a term to search by.

- Use the navigation bar and navigate to the 'search' section.
- First, select a term from the given options and select one.
- Then enter the search value according to the selected type.
  (For example: if the user selects 'By Patient ID,' enter the search value as 'P1234' which should be a valid patient ID).
- Click the 'search' button and the matching details will be fetched from the DB and will be dynamically added to the table below.

Step 03 - Update or Delete a patient

Users will be able to search up a patient and perform delete/update actions.

- First, navigate to the 'update patients' section.
- Select a search type from the given options in the drop down menu.
- Enter a valid search term for the selected search by type. (if invalid system will display an error message).
- Press the "search" button and if the corresponding details are present, the system will load the form where selected patient's details will be auto filled.
- Edit any field and click the 'update patient' button.

Note: Edit option is available if only the user selects the options 'Patient ID or First Name.' If the user selects 'Patient ID' both Edit and Delete options will be available for the user.
Delete option is only available when searching by patient ID.

Additional Notes:

- Users can enable dark mode/ light mode by clicking the 'Dark Mode' or 'Light Mode' from the navigation bar, which will toggle dark mode/ light mode on/off.
- Users can use the footer to navigate as well.