Project Details

Name : JAISURYA U K

Roll Number : 7376222IT157

Seat Number : 305

Project ID : 25

Tech Stack : LAMP

Project Name : Student Database Management

Technical Components

Work Phase	Tech Components used
UI / UX Designing	Figma
Front End Development	HTML, CSS, Javascript
Database Implementation	MYSQL
Back End Development	Laravel

Project Implementation Timeline

Stage	Deadline	Phase	Status
1	04/05/2024	Planning and Requirement gathering	Completed ▾
2		Design and Prototyping	In progress ▾
3		Database Designing	In progress ▾
4		BackEnd Development	In progress ▾
5		Testing And Implementation	Not started ▾
6		Deployment	Not started ▾

Problem Statement:

The current way we handle student information across different departments in our institution is causing a lot of problems:

➤ **Inconsistent Data Management:** Student data is all over the place, making it hard to keep track of everything and leading to mistakes in things like enrollment and resource management.

➤ **Communication Fragmentation:** We don't have a single system for sending out important messages, so announcements get lost in the shuffle, making it tough to coordinate effectively.

➤ **Slow Information Flow:** We don't have a streamlined process for communication, important info takes too long to reach the right people, slowing down decision-making and how smoothly we run things.

➤ **Administrative Burden:** Managing student data manually, sorting out conflicts, and keeping up with different rules and categories is a big headache. It's taking up a lot of time and energy for the administration that could be better spent on improving the institution.

PROJECT-FLOW:

➢ **Purpose:**

To develop a student information management system that facilitates Managing student data, data import/export, and record filtering, simplifying administrative tasks and improving efficiency in managing student data.

➢ **Scope:**

This system includes user authentication, data entry forms for Managing student data, data import/export functionalities, and a user-friendly interface for filtering and viewing student records. It aims to centralize student information and streamline administrative processes.

➢ **Business Context:**

The student information management system is designed to alleviate administrative burden and enhance data management practices within the institute. Primary stakeholders include administrative faculties responsible for managing student records and facilitating administrative tasks.

- ➢ **Consideration:**
  - ➢ Integration with authentication mechanisms for user access control.
  - ➢ Compatibility with existing database systems and data formats.
  - ➢ User-friendly interface for easy navigation and data entry.
- ➢ **Dependencies:**
  - ➢ Integration with authentication systems for user login and access control.
  - ➢ Compatibility with existing database structures and formats for data import/export.
- ➢ **User Stories:**
  - ➢ As an administrator, I want to register and authenticate users to grant them access to the system.
  - ➢ As an administrator, I want to import student data from external sources to maintain comprehensive records.
  - ➢ As a user, I need to export student data in various formats for reporting purposes.
  - ➢ As a user, I want to filter student records based on specific criteria to retrieve relevant information for analysis and decision-making.
  - ➢ As an administrator, I need to manage student data and user accounts and configure access permissions to ensure data security and integrity.

Product Perspective:

The Student Database Management System (SDMS) serves as a centralized platform for administrative purposes within educational institutions. It caters exclusively to the needs of institute management, providing essential functionalities for data management and administrative tasks related to student information.

Product Functions:

The SDMS offers the following core functionalities:

- ➤ User Registration and Authentication for secure system access.
- ➤ Managing student data for comprehensive student record management.
- ➤ Data Import and Export for seamless integration and reporting.
- ➤ Record Filtering based on diverse student attributes for efficient data retrieval.
- ➤ Administrative Tools for user account management, system configuration, and access control.

Specific Requirements:

User Roles:

➤ **Administrator:** Responsible for managing student data, portal data and system settings, with full access to all functionalities.

➤ **User:** Responsible for viewing and using all the data of students with multi functionalities of importing, exporting, filtering under the supervision of administrators.

Functional Requirements:

➤ **User Registration and Authentication:**
  - ➤ User registration page for administrators and data entry operators.
  - ➤ Login functionality to authenticate users and grant access to the system.

➤ **Managing Student Data:**
  - ➤ Forms for creating, updating, and deleting student records.
  - ➤ Search functionality to retrieve specific student records based on user-defined criteria.

➤ **Data Import and Export:**
  - ➤ Tools for importing student data from CSV files or other external sources.
  - ➤ Export functionality to generate reports and export student data in various formats (e.g., CSV, Excel).

➤ **Record Filtering:**
  - ➤ Filters and search options to retrieve student records based on department, gender, year, status, hostel, community, quota, and category.
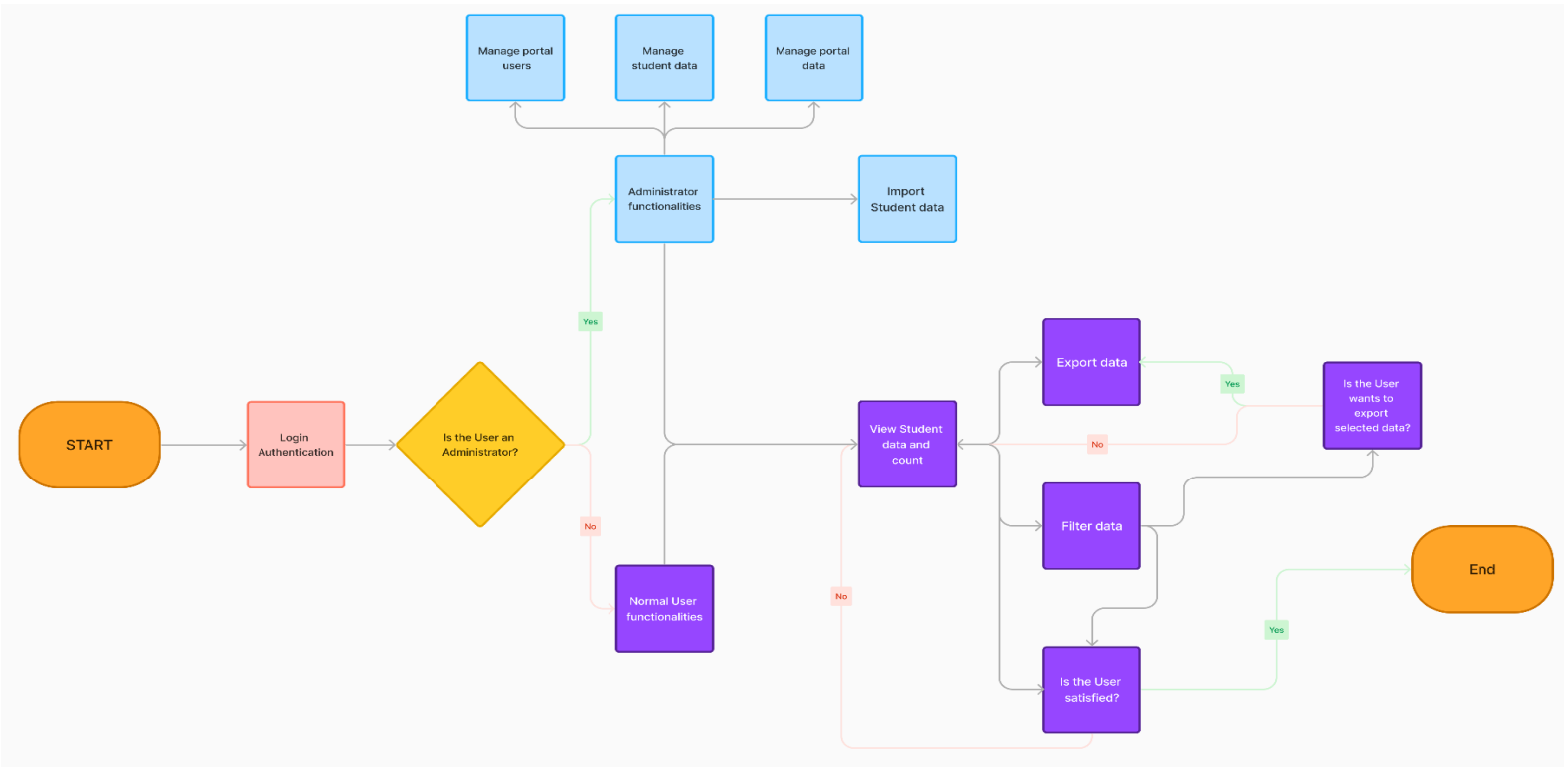 - ➤ Advanced filtering options for customized data analysis.

➤ **Administrative Tools:**
  - ➤ User management interface for adding, updating, and deleting user accounts.
  - ➤ System settings page for configuring access permissions and other administrative settings.

Additional Considerations:

➤ **Security:** Secure user authentication and data encryption to protect user privacy.

➤ **User Interface (UI):** A user-friendly and intuitive interface for both administrators and normal users.
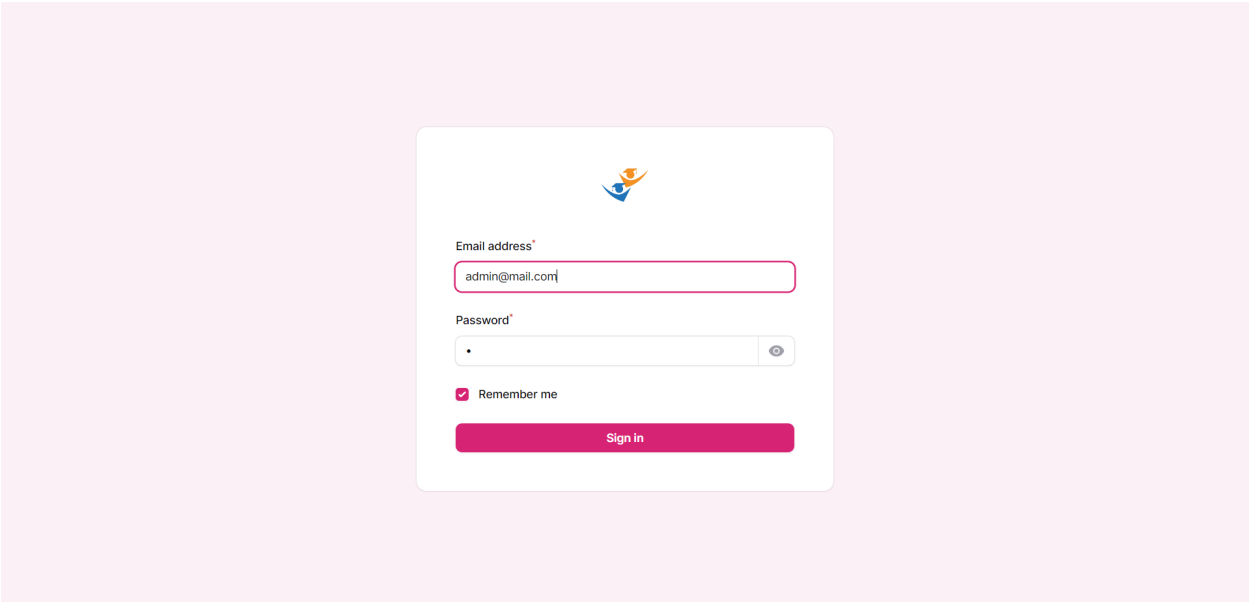
WEB APP WORKFLOW:

DATABASE DESIGN:

PROTOTYPE:

Login Page:

Home Page:
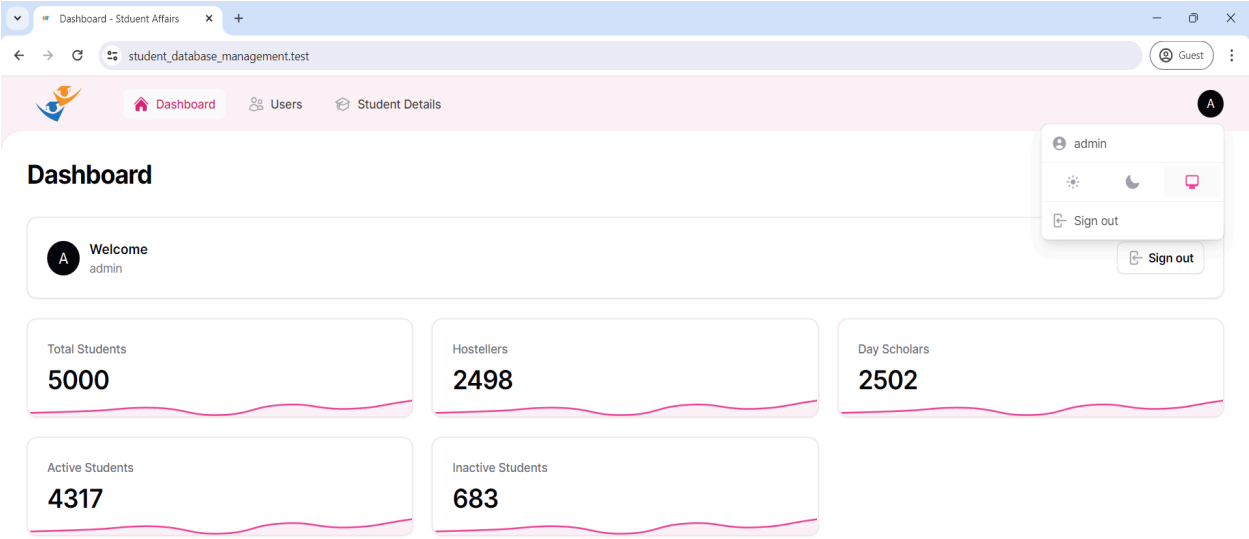
View Page(Filters):

Student Details › List

Student Details

⬆ Import Student Detail   ⊕ Create Student Detail

Filters   Reset

Department	Gender	Admitted From	Admitted To	Year
Information Technology ✕ ⌄	Filter by Gender ⌄	dd-mm-yyyy 📅	02-05-2024 📅	Filter by Year ⌄

Status	Accommodation	Community	Seat category	Course
Filter by Status ⌄	Filter by Accommodation ⌄	Filter by Community ⌄	Filter by Seat Category ⌄	Filter by Course ⌄

Religion	Residency status	Blood group
Filter by Religion ⌄	Filter by Residency Status ⌄	Filter by Blood Group ⌄

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🔍 Search   ▦

Active filters | Department: Information Technology ✕ | To: 02 May 2024 ✕   ✕

☐	Name ⌄	Roll no ⌄	Email ⌄	Department ⌄	Gender	Year	Status	Accomodation	
☐ 1	Marielle	7376212IT148	✉ marielle.it21@bitsathy.ac.in	IT	Female	III	Active	Dayscholar	⋮

View Page(DataTable):

Student Details

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🔍 Search   ▦

Active filters | Department: Information Technology ✕ | To: 02 May 2024 ✕   ✕

☐	Name ⌄	Roll no ⌄	Email ⌄	Department ⌄	Gender	Year	Status	Accomodation	
☐ 1	Marielle	7376212IT148	✉ marielle.it21@bitsathy.ac.in	IT	Female	III	Active	Dayscholar	⋮
☐ 2	Neha	7376222IT294	✉ neha.it22@bitsathy.ac.in	IT	Female	II	Active	Hosteller	⋮
☐ 3	Grover	7376232IT185	✉ grover.it23@bitsathy.ac.in	IT	Female	I	Inactive	Dayscholar	⋮
☐ 4	Carley	7376222IT185	✉ carley.it22@bitsathy.ac.in	IT	Male	II	Active	Hosteller	⋮
☐ 5	Buster	7376212IT347	✉ buster.it21@bitsathy.ac.in	IT	Male	III	Active	Hosteller	⋮
☐ 6	Susie	7376211IT309	✉ susie.it21@bitsathy.ac.in	IT	Female	III	Active	Dayscholar	⋮
☐ 7	Maribel	7376211IT118	✉ maribel.it21@bitsathy.ac.in	IT	Male	II	Active	Hosteller	⋮
☐ 8	Emmett	7376211IT225	✉ emmett.it21@bitsathy.ac.in	IT	Male	III	Active	Dayscholar	⋮
☐ 9	Anna	7376202IT103	✉ anna.it20@bitsathy.ac.in	IT	Female	IV	Active	Hosteller	⋮
☐ 10	Nedra	7376201IT157	✉ nedra.it20@bitsathy.ac.in	IT	Female	IV	Active	Dayscholar	⋮

Summary	Name
This page	Count 10
All student details	Count 214

Showing 1 to 10 of 214 results   Per page 10 ⌄   1 2 3 4 … 21 22 ›