Government College Of Engineering (GCOEJ) , Jalgaon

(An Autonomous Institute of Government of Maharashtra)

Department of : Computer Engineering

Project Report

(Academic Year 2024-25)

Course Code & Subject : Database Management System Lab
Batch : T2
Year & Programmer : 2024-25

Submitted By :

- Koli Viraj Vinod (PRN : 2241032)
- Patil Pallavi Govardhan (PRN : 2241046)
- Brahmane Rahul Nilkanth (PRN : 2241051)

Submitted To:

Date

INDEX

Topic of the Project

Parents Feedback Management Site

Brief Introduction

Effective management of feedback from parents is crucial for any educational institution aiming to improve its systems and ensure continuous growth. To streamline this essential yet time-consuming task, we have developed a Parents Feedback System that provides a robust platform for managing and analyzing feedback. This system features distinct functionalities for different types of users, ensuring seamless operation and role-specific access.

The system supports three types of users: administrators, teachers, and parents. Each user type is provided with tailored access to ensure efficient workflow.

- Administrator Role: Administrators are central to the system, with the authority to manage feedback data, handle parent queries, and oversee teacher profiles. They can upload notices, reports, or important documents, which are viewable only by authorized users. Administrators also have the ability to view and analyze feedback trends, delete outdated data, and manage users. They can generate detailed reports, including downloading feedback data as Excel files, directly from the interface.

- Parent Role: Parents are provided with a user-friendly interface to submit feedback, view uploaded notices, and track their previous submissions. They can also raise queries to the institution, which can be addressed by administrators or teachers. However, parents do not have access to any administrative functionalities.

The system ensures a smooth and user-friendly experience with the following key features:

- Role-based access to maintain data security and prevent unauthorized actions.
- A responsive design that works seamlessly across all devices.

- A streamlined interface for viewing and managing queries, reports, and feedback trends.

By providing a well-organized platform, the Parents Feedback System simplifies the process of feedback collection, analysis, and action, making it an invaluable tool for institutions committed to fostering better communication with parents and driving continuous improvement.

Objectives And Scope

Objectives and Scope for Parents Feedback System Project

- Automation of Existing System: To replace the current manual process with an efficient, database-driven system, ensuring that valuable data and information are securely stored for long-term use.
- Simplified Data Access and Manipulation: To enable seamless access and easy management of feedback data, ensuring streamlined operations.
- Efficient Database Management: To develop a database management system that delivers high performance and superior services to users, enhancing overall efficiency.
- Minimization of Manual Effort: To reduce the workload of the website administrator by automating the handling of data related to parents, students, and feedback submissions.
- Cost-Effectiveness: To lower the cost of managing and collecting feedback while ensuring smooth operation of the system.
- User-Friendly Data Collection: To make the data collection process straightforward, intuitive, and efficient, saving time and effort for all stakeholders.

Process description

Parents Feedback System Project :

In our Parents Feedback System project, we have utilized Node.js and Express, which follow a slightly different approach from Django. The backend processes operate in a structured, event-driven manner, ensuring smooth functionality.

Template Structure and Reusability

We have designed the web pages using EJS (Embedded JavaScript), which allows for template inheritance and reusability. A base.ejs file serves as the foundation, containing shared components like the navbar, footer, and any global layout elements. Other EJS templates extend this base file by adding new content within predefined blocks, making development efficient and modular.

Routing and Views

In Express, routing is managed in the routes folder. Routes are defined to match specific URLs, and corresponding controller functions handle the logic. These controller functions render the appropriate EJS templates and manage the flow of data between the backend and frontend.

Data Models and Database

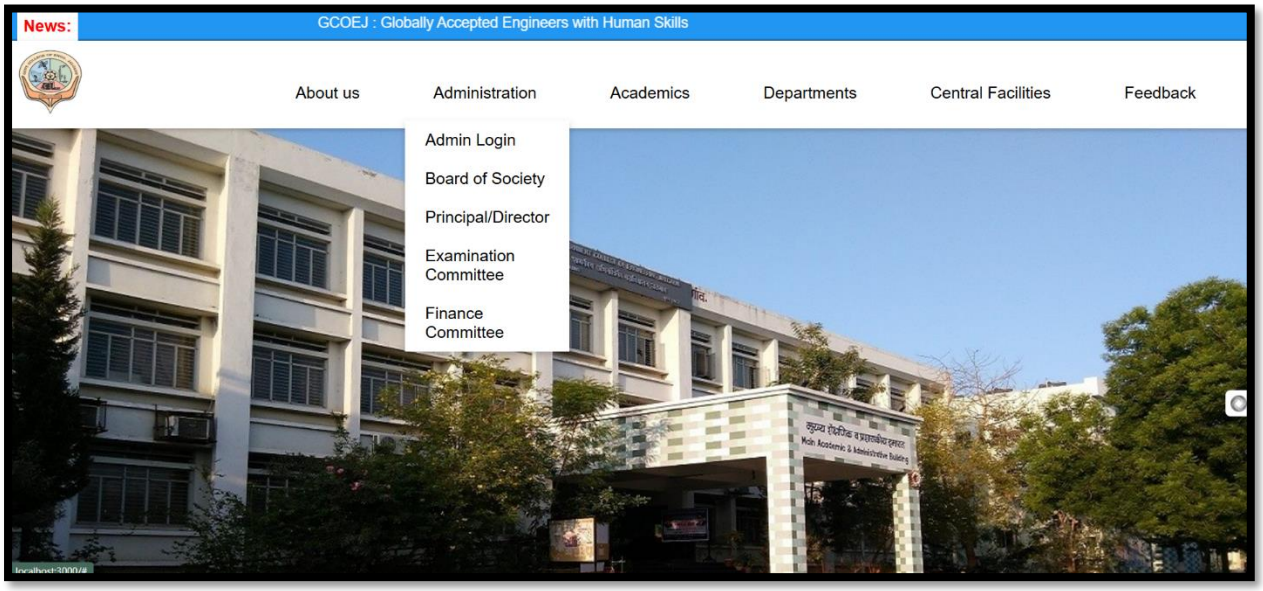
The structure of the database tables is defined using Mongoose models since we are using MongoDB. These models outline the schema for storing data such as feedback, admin credentials, and other relevant information. Once defined, the models automatically create the necessary collections in the MongoDB database.

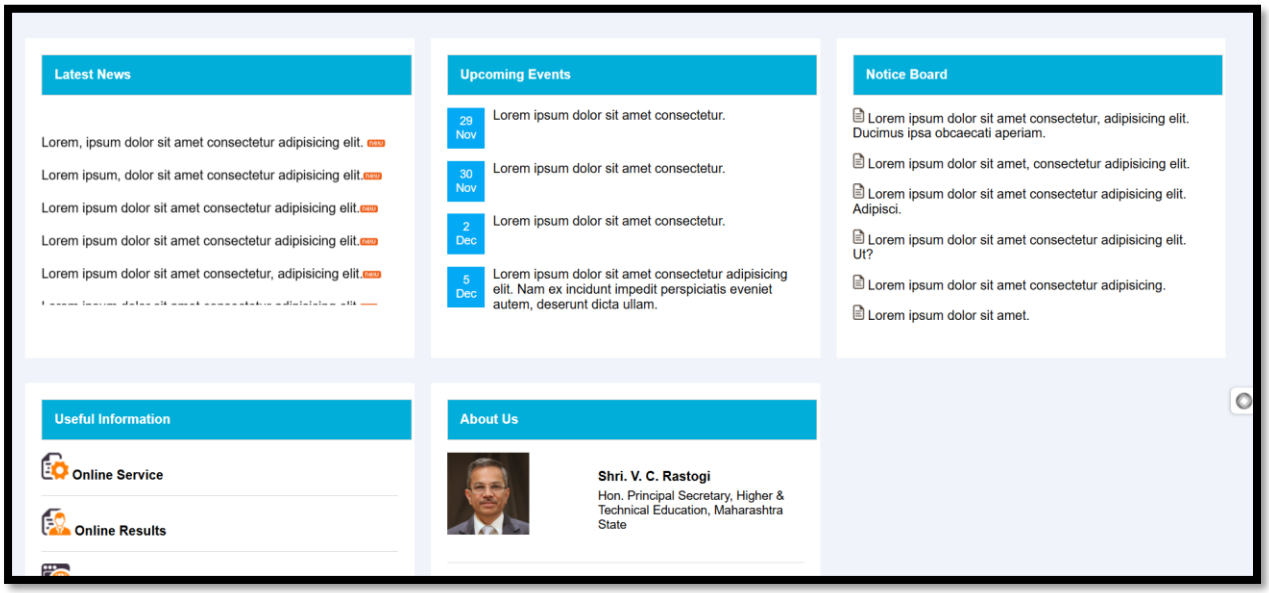
Rendering and Passing Data

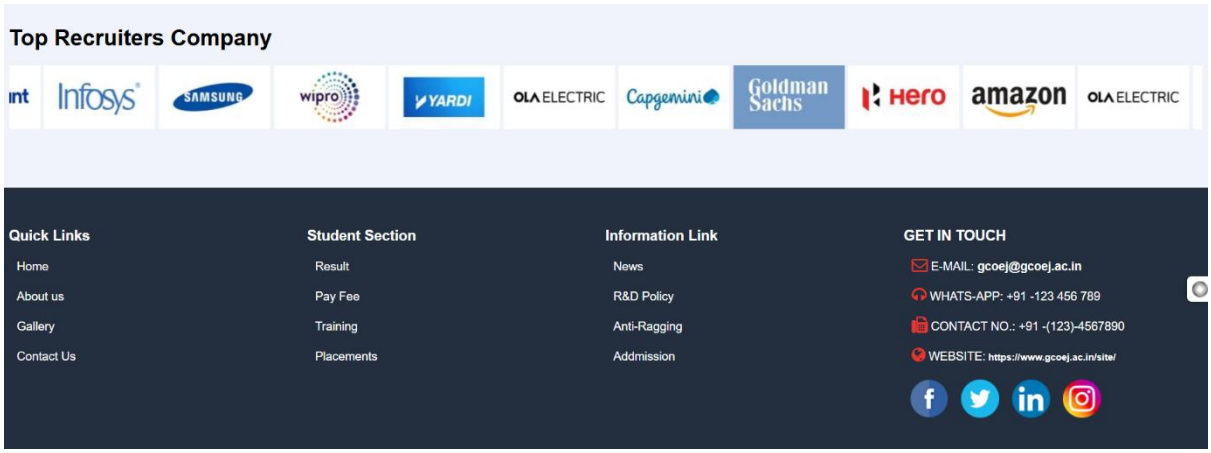
Controller functions in Express handle both rendering the pages and passing data from the database to the frontend. For this, we use a JavaScript object, where keys represent the variable names and values contain the corresponding database data. This object is passed to the

res.render() function, enabling dynamic data rendering in EJS templates.

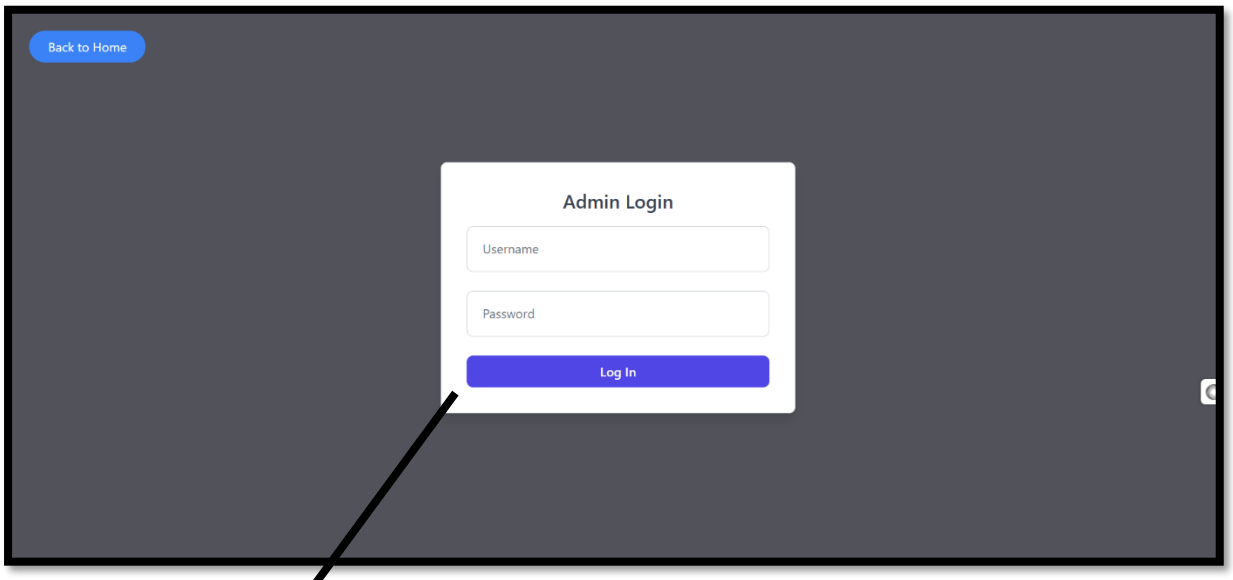
Let’s see how our site looks,







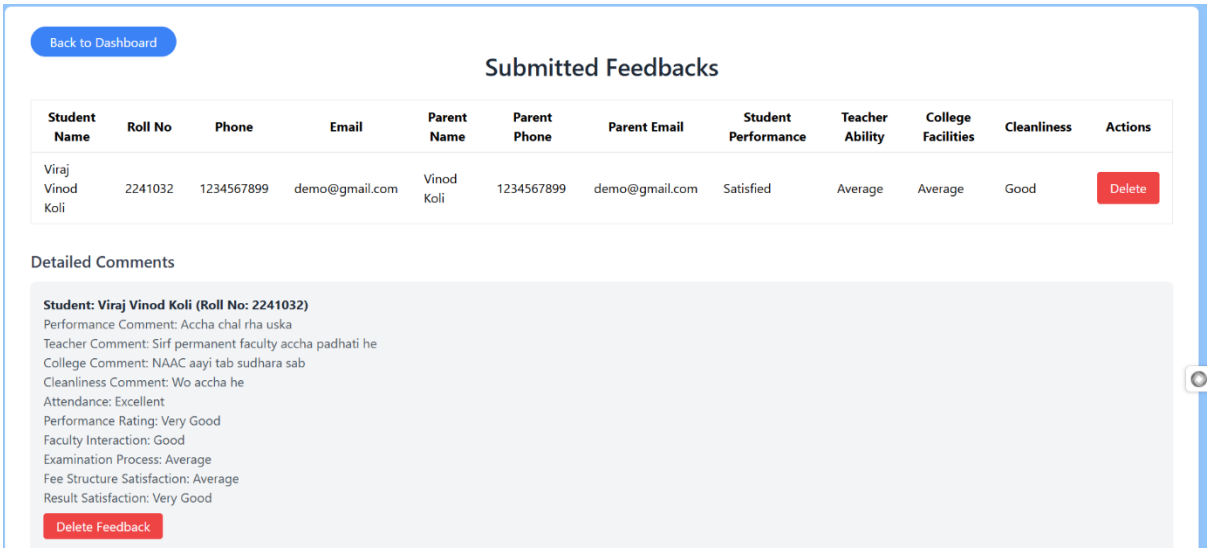
Welcome page



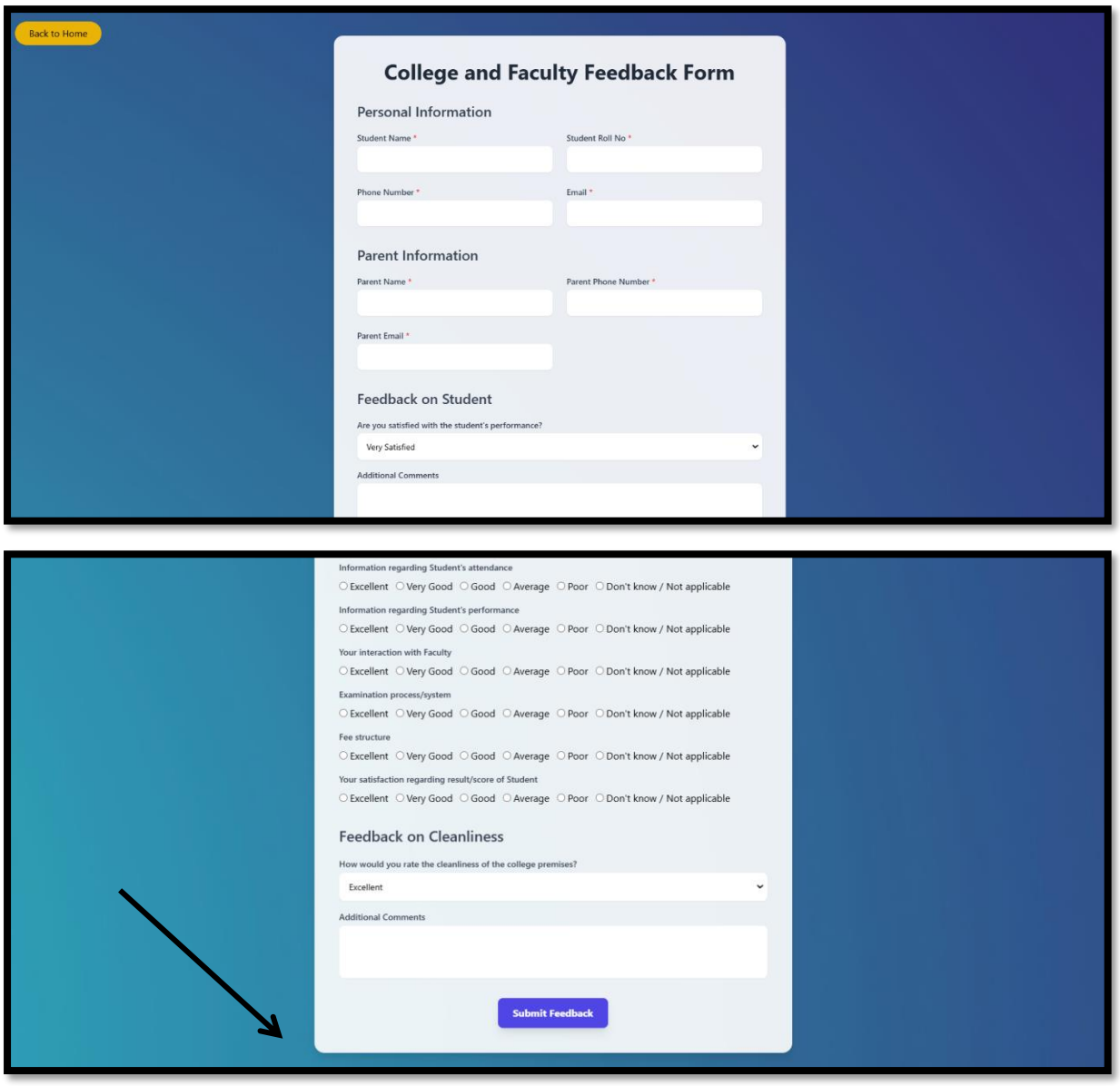
Login page

Admin login

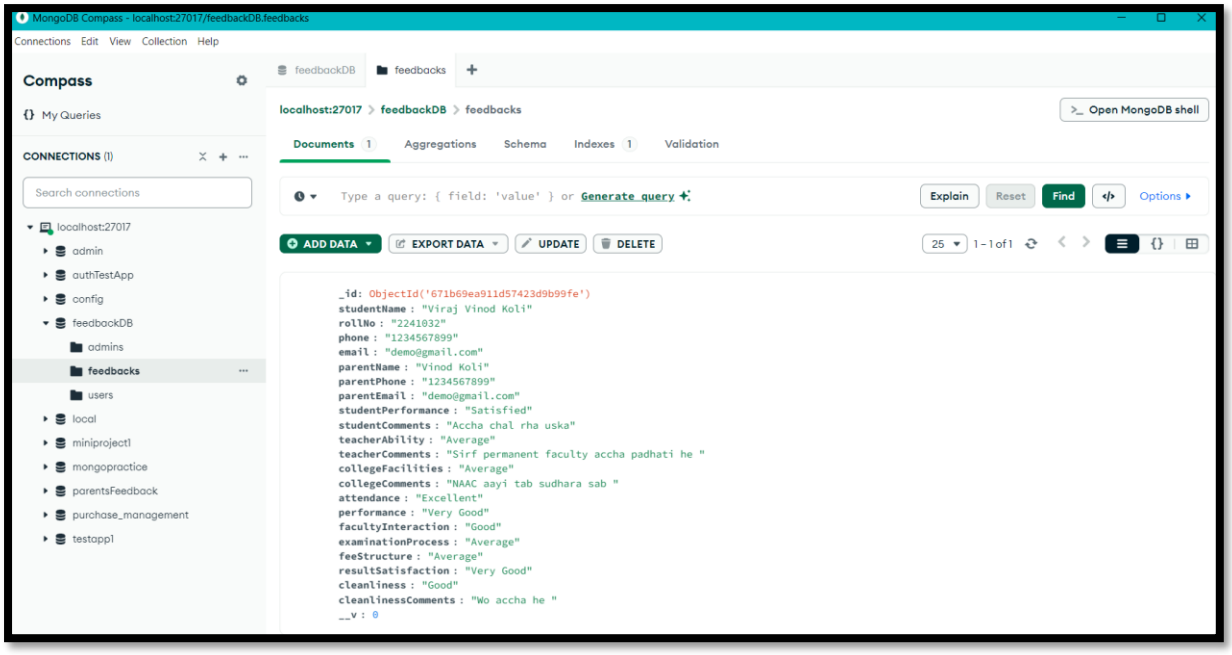
Backend (for institute)



Feedback Dashboard (Only for Institute)



Feedback form for Parents



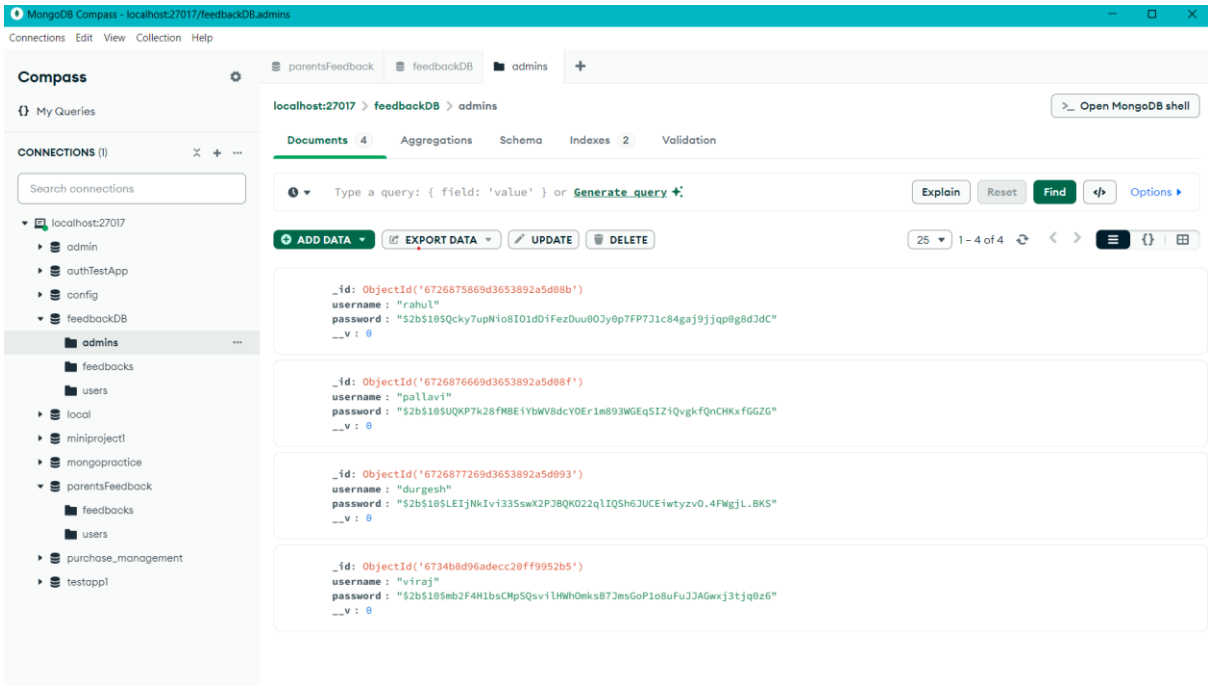


Fig. Feedbacks and Admins in MongoDB Compass

Conclusion

In our Parents Feedback System project, we have successfully created a fully responsive platform that works seamlessly across all devices, ensuring a user-friendly experience. The system is integrated with a database, allowing smooth interaction between the front-end forms and back-end operations, making it simple to add and manage data.

The admin interface is intuitive and easy to navigate, enabling efficient updates and management. Feedback data can be sorted based on various attributes such as parent names, student details, or feedback categories, providing flexibility in analysis. Additionally, the system includes a feature to export feedback records as Excel files, making data sharing and reporting convenient.

Parents can log in to view submitted feedback, update their details, and access information about the institution, such as the main college site or specific department pages. Sending queries through the platform is straightforward and quick, encouraging open communication without hesitation.

The management interface is designed to prioritize usability, making it a valuable tool for both administrators and parents. Overall, the Parents Feedback System is fully functional and ready to be implemented for practical use by educational institutions.

References:

1. https://nodejs.org/docs/latest/api/
2. https://tailwindui.com/components?ref=sidebar
3. https://expressjs.com/

Role of individual Team member

1) Viraj Koli :- Backend and Database Development
2) Rahul Brahmane :- Homepage and Admin pages
3) Pallavi Patil :- Feedback form and Documentation