COLLEGE CODE:0004

COLLEGE NAME : MADRAS INSTITUTE OF TECHNOLOGY, ANNA UNIVERSITY.

DEPARTMENT : INFORMATION TECHNOLOGY.

Completed the project named as

Phase : 1 – FE

NAME : FEEDBACK COLLECTION SYSTEM

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Feedback Collection System-project

Phase 1: Problem Definition & Design Thinking

Problem Definition

Collecting and analyzing user feedback is critical for improving digital platforms, but traditional feedback systems lack real-time data processing, analytics, and seamless user experience. The challenge is building a feedback platform that makes feedback submission intuitive, securely stores submissions, and provides actionable insights via an admin dashboard.

Target Audience

- End-users of digital platforms or services who wish to submit opinions, ratings, and suggestions.
- Admins or platform managers who require real-time analytics and visualization of feedback data for decision-making.

Objectives

- Develop a feedback submission interface using React for easy and responsive access.
- Implement a Node.js backend to securely accept and process feedback submissions.
- Store and manage feedback data in MongoDB for scalability and flexible querying.
- Create an admin analytics dashboard displaying trends and actionable statistics.
- Ensure data privacy and security at every stage of the feedback lifecycle.

Design Approach

Empathize

- Users require a simple way to submit feedback without login friction or complexity.
- Admins need real-time analytics and visualizations to drive platform improvements.
- Both groups expect confidentiality and security for submitted data.

Define

- The system must support rich form fields (ratings, text comments) and validate entries.
- Feedback is stored in MongoDB with timestamps and meta-data for trend analysis.
- Admins view feedback in panels showing analytics, trends, and raw entries.

Ideate

- A React form (Component) for users to submit feedback, interfacing directly with the Node.js backend via REST APIs.
- Node.js routes for feedback submission, retrieval, and admin authentication.
- Aggregation features in the backend to power dashboard analytics.
- Data visualization using chart libraries on the admin dashboard.

Prototype

- Frontend: Responsive React form for feedback collection, including star ratings, category selectors, and text/optional media uploads.
- Backend: Node.js Express server handling feedback submission, validation, and querying from MongoDB.
- Database: MongoDB collections for feedback with structure supporting extensibility (e.g., userID, rating, category, comment, timestamp).
- Admin Panel: Dashboard with graphs (e.g., distribution of ratings, commonly reported issues) and list view for individual feedback records.

Testing

- Run pilot feedback collection among a test user group, monitor submission success and analytics accuracy.
- Gather admin feedback on dashboard usability and data quality.

Key Features

- Real-time feedback entry and storage.
- Data privacy and secure transmission (HTTPS, authentication for admin routes).
- Visual analytics: bar charts, pie charts, trend lines.
- Search/filter functions for feedback records.