



COLLEGE CODE: 8203

COLLEGE: AVC COLLEGE OF ENGINEERING

DEPARTMENT: INFORMATION TECHNOLOGY

STUDENT NM-ID: A8497BAAFDD3B8D816E4BACCB59D2039

ROLL NO: 23IT119

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Completed the project named as Phase I

TECHNOLOGY PROJECT NAME: Feedback Collection System

SUBMITTED BY,

NAME: YASARDEEN.P

MOBILE NO: 6369675068

PROBLEM STATEMENT:

Collecting structured feedback is a common requirement for organizations, educational institutions, and businesses. Manual feedback collection methods like paper forms or unstructured emails are inefficient and difficult to analyze. This project aims to build a web-based Feedback Collection System where users can submit feedback online, and administrators can view, filter, and analyze responses.

USERS & STAKEHOLDERS:

USERS:

- **END USERS (STUDENTS, CUSTOMERS, EMPLOYEES):** Submit feedback through a web form.
- **Admin (Faculty, Managers):** View and filter feedback, analyze sentiment.
- **System (Backend & Database):** Store feedback with timestamps, validate inputs, send email confirmations, and perform sentiment analysis.

STAKEHOLDERS:

- **DEVELOPMENT TEAM:** Responsible for design, coding, testing, and deployment.
- **SYSTEM ADMINISTRATORS:** Manage database, backend APIs, and server uptime.
- **Educational Institution / Faculty Guide:** Oversee progress and evaluate deliverables.
- **END-USER COMMUNITY:** Benefit from structured and analyzed feedback results.
- **EDUCATIONAL INSTITUTION / FACULTY GUIDE** → Monitor project progress and evaluate outcomes.
- **BUSINESS OWNERS / MANAGEMENT** → Use reports to make business decisions.
- **HR DEPARTMENT** → Analyze employee feedback for policy and culture improvement.
- **QUALITY ASSURANCE TEAM** → Ensures feedback leads to service/product improvements.
- **DATA ANALYSTS / RESEARCHERS** → Study collected feedback trends for insights.
- **INVESTORS / SPONSORS** → Interested in how user satisfaction impacts growth.
- **REGULATORY BODIES** → Ensure compliance with data protection and feedback handling laws.

USER STORIES:

- **As a user,** I want to submit feedback via a web form so that my opinions are recorded.
- **As a user,** I want to receive an email confirmation after submitting feedback so that I know it was successfully submitted.
- **As a user,** I want to submit feedback anonymously so that I can provide honest opinions without revealing my identity.
- **As an admin,** I want to view and filter all feedback by course, session, or department so that I can analyze relevant data efficiently.
- **As an admin,** I want to perform sentiment analysis on feedback so that I can identify positive and negative trends quickly.
- **As an admin,** I want to generate downloadable reports so that I can share insights with management and make informed decisions.
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MVP [MINIMUM VIABLE PRODUCT] FEATURES:

1. FEEDBACK SUBMISSION

- Users can fill out a feedback form on the frontend.
- Feedback is sent to the backend for processing.
- Users can choose to submit feedback anonymously.

2. FEEDBACK STORAGE & VALIDATION

- Backend (Node.js + Express) stores feedback in a database with timestamps.
- Input validation ensures all required fields are filled and safe.
- Duplicate or incomplete feedback is rejected.

3. EMAIL CONFIRMATION

- After feedback submission, the system sends a confirmation email to the user.
- Confirms that the feedback was successfully received.

4. ADMIN FEEDBACK MANAGEMENT

- Admin can view all submitted feedback.
- Admin can filter feedback by course, department, or date.
- Admin can create, edit, or delete feedback forms.

5. ANALYTICS & REPORTING

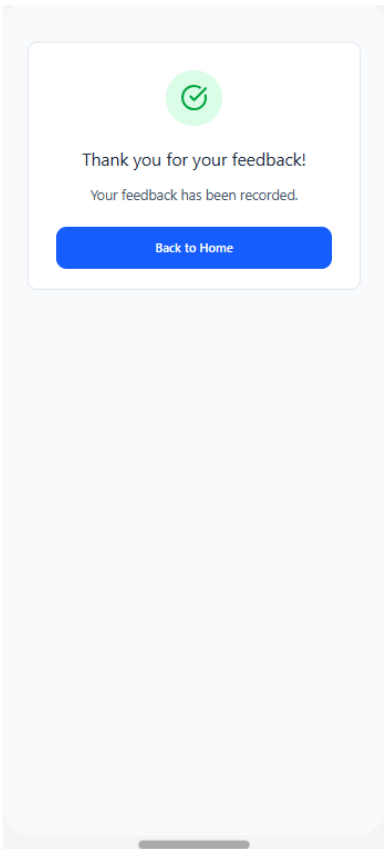
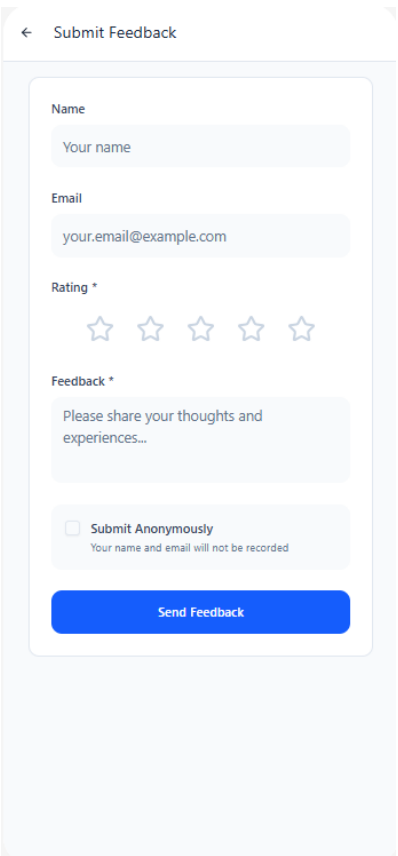
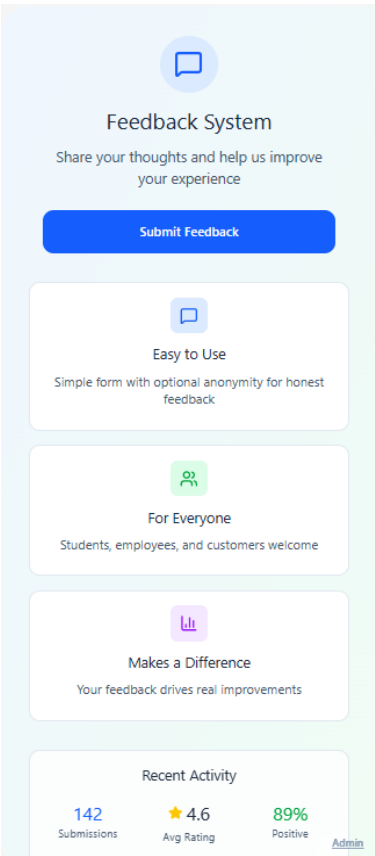
- Admin dashboard shows graphical summaries of feedback.
- Basic sentiment analysis highlights positive or negative responses.
- Admin can download reports as PDF or Excel files.

6. ERROR HANDLING

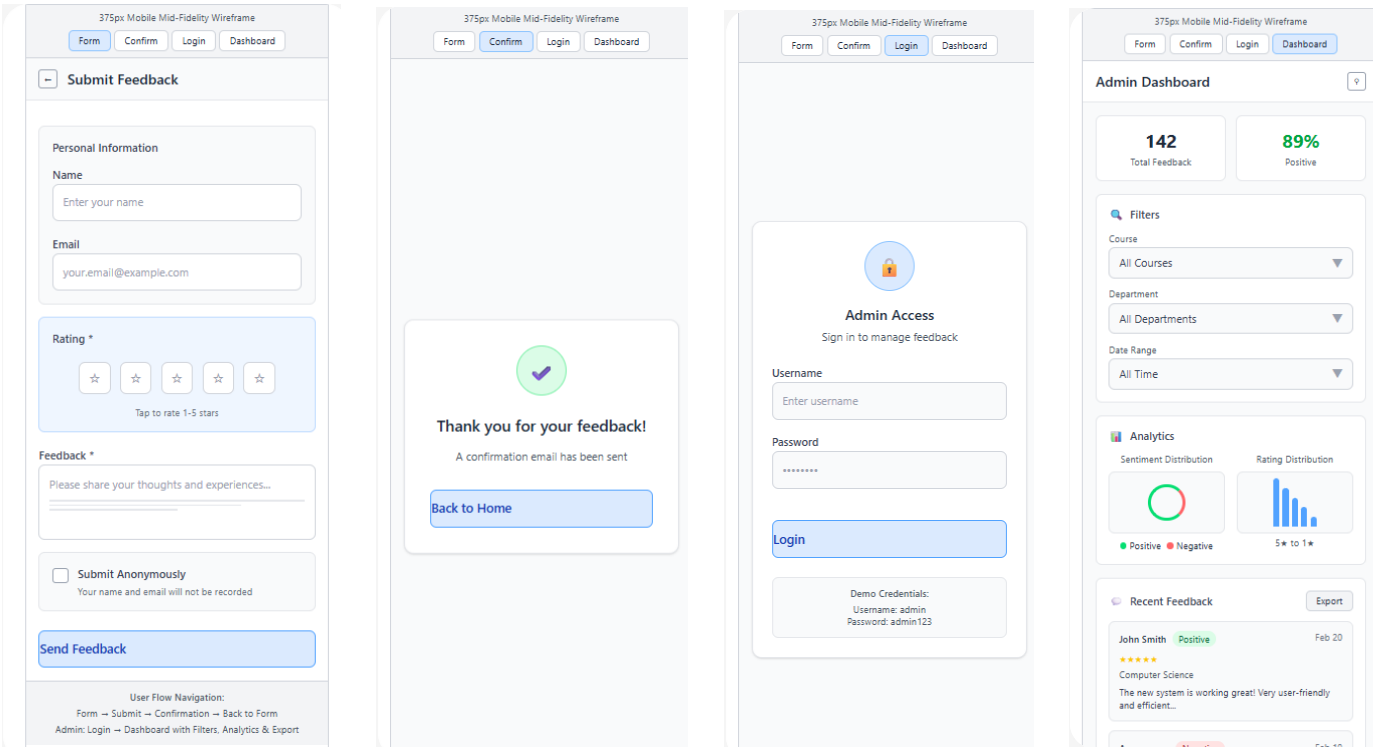
- If submission fails → show “Feedback submission failed” message.
- If email fails → show “Confirmation email not sent” message.
- If database is down → show “Service unavailable, try later” message.

WIREFRAMES & API ENDPOINT LIST:

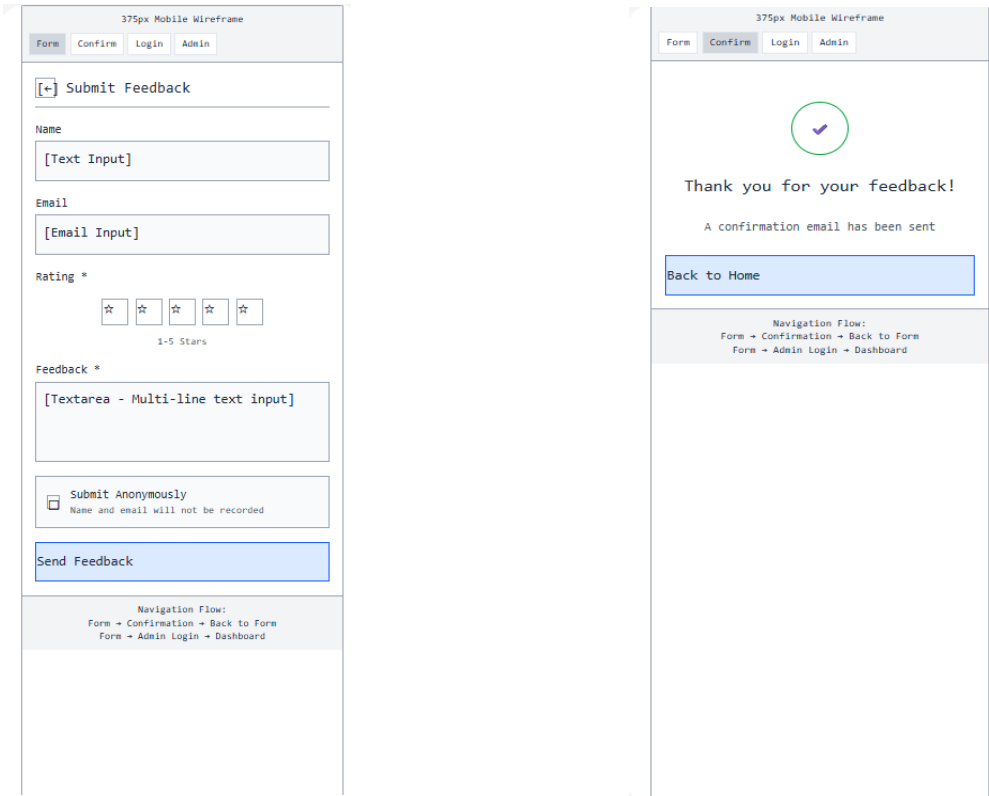
HIGH-FIDELITY WIREFRAMES:



MID-FIDELITY WIREFRAMES:



LOW-FIDELITY WIREFRAMES:



API ENDPOINT LIST:

Method	Endpoint	Description
POST	/feedback	Submit feedback (user → system).
GET	/feedback	Fetch all feedback (admin view).
GET	/feedback?rating=5	Filter feedback by rating.
GET	/feedback/:id	View single feedback entry (optional).

Acceptance Criteria:

1. END USERS (STUDENTS, CUSTOMERS, EMPLOYEES)

- Users must be able to submit feedback successfully through the web form.
- Users should have the option to submit feedback anonymously.
- Users must receive a confirmation email after feedback submission.
- Feedback submission should fail gracefully with an error message if required fields are missing.

2. ADMIN (FACULTY, MANAGERS)

- Admin can view all feedback in a structured table format.
- Admin can filter and sort feedback by course, department, or date.
- Admin can perform basic sentiment analysis and view analytics summaries.
- Admin can generate downloadable reports in PDF or Excel format.
- Admin can create, edit, or delete feedback forms successfully.

3. SYSTEM (BACKEND & DATABASE)

- Feedback data must be stored securely with timestamps.
- Input validation must prevent incomplete or incorrect feedback from being stored.
- The system must send email confirmations reliably after feedback submission.
- The system must display appropriate error messages if the database or email service is unavailable.
- The system must maintain logs of actions and errors for troubleshooting.