

A
Semester Project-I Report on
Feedback Collector using Python, Streamlit,
and FastAPI

In partial fulfillment of the requirements for the degree of
Bachelor of Technology
in
Computer Science & Engineering (Data Science)

Submitted By

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CERTIFICATE

This is to certify that the Semester Project-I entitled “**Smart Student Complaint & Feedback Management System**” has been carried out by the team:

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1 Introduction

The Feedback Collector system is designed to automate and simplify the process of collecting user feedback in digital environments. Traditional methods such as paper-based forms and email surveys lack real-time processing and scalability.

This project uses **FastAPI** for backend development and **Streamlit** for frontend UI rendering. Users can submit feedback easily, while administrators can monitor responses in real-time.

The system supports multiple categories such as Banking, Healthcare, Education, Internet Services, and E-Commerce with structured questions including ratings and suggestions.

2 Problem Statement

Manual feedback collection systems are inefficient, slow, and difficult to manage. There is a need for a real-time, centralized, and automated system to collect and analyze feedback effectively.

The proposed system addresses these challenges by providing a digital platform for feedback submission and analysis.

3 System Architecture

The system follows a REST-based client-server architecture.

Streamlit provides the frontend interface, while **FastAPI** handles backend processing. Data is exchanged in JSON format and stored in CSV files or databases for analysis using Pandas.

4 Implementation Details

4.1 Algorithm / Workflow

1. User opens the Streamlit interface.
2. User selects a category and submits feedback.
3. Data is sent to FastAPI via POST request.
4. Backend stores data in CSV/database.
5. Admin views feedback through dashboard.

6. Charts are generated using Matplotlib.

4.2 Snapshots

- Login Page
- Feedback Form
- Admin Dashboard

4.3 Result Discussion

The system successfully records feedback and generates visual analytics. Admins can download CSV reports and analyze trends efficiently.

5 System Screenshots

Screenshots of the system interface are included in this section.

6 Results

The system provides a fast, scalable, and easy-to-use solution for feedback collection. It can be enhanced with authentication, database integration, and advanced analytics.

7 Conclusion

The Feedback Collector system successfully demonstrates the integration of Python, Streamlit, and FastAPI to build a real-time feedback management platform similar to Google Forms.