

**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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Computer Science & Engineering (Data Science)

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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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under the guidance of **Prof. Santosh Kumar Bhandare** in partial fulfillment of the requirement for the degree of Bachelor of Technology in the Department of Computer Science & Engineering (Data Science) (Semester–III) of Dr. Babasaheb Ambedkar Technological University, Lonere, during the academic year 2025–26.

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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.