College Event Feedback Analysis

Data Science & Analytics Task 3 – Future Interns

Introduction

College events and academic programs frequently collect feedback from students, but this data is often underutilized.
This project focuses on analyzing student feedback survey data to identify satisfaction trends and provide actionable recommendations using data analytics techniques.

Objective

The objectives of this project are:

- To analyze student satisfaction levels using survey data
- To identify positive, neutral, and negative feedback trends
- To visualize survey results for better interpretation
- To suggest improvements based on insights

Dataset Description

The dataset consists of student feedback collected through a structured survey.
Students rated various aspects of the event/course on a numeric scale.

Key attributes include:

- Subject Knowledge
- Concept Clarity
- Presentation Quality
- Assignment Difficulty
- Doubt Solving
- Course Structure
- Student Support
- Course Recommendation

Each row represents feedback from an individual student.

Tools & Technologies Used

- Google Colab for analysis
- Python programming language
- pandas for data manipulation
- seaborn and matplotlib for visualization

Methodology

1. Data Cleaning

- Removed unnecessary index column
- Verified that all columns contained valid numeric values
- Renamed columns for clarity

2. Feature Engineering

- Calculated an **Overall Satisfaction Score** by averaging multiple rating attributes

3. Sentiment Analysis

- Classified feedback into:
    - **Positive** (high satisfaction)
    - **Neutral** (moderate satisfaction)
    - **Negative** (low satisfaction)
- Sentiment classification was derived using rule-based logic from satisfaction scores

4. Data Visualization

- Bar chart for sentiment distribution
- Histogram for overall satisfaction score
- Bar chart for average ratings by category

Results & Insights

- Most students fall under the **Neutral sentiment category**, indicating average satisfaction
- A good proportion of students expressed **Positive sentiment**, reflecting effective delivery and subject knowledge
- Very few students expressed **Negative sentiment**, suggesting overall satisfaction

- Subject knowledge and concept clarity scored higher
- Assignment difficulty and student support require improvement

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Recommendations

- Improve student engagement and interaction during sessions
- Review assignment difficulty to better match student expectations
- Strengthen student support and doubt-clearing mechanisms
- Collect open-ended feedback in future surveys for deeper qualitative insights
- Use survey analytics regularly to improve event planning and execution

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Conclusion

This project demonstrates how structured survey data can be effectively analyzed to assess student satisfaction.
By applying data cleaning, sentiment classification, and visualization techniques, actionable insights were generated to improve future college events and academic programs.

Deliverables

- Clean and well-documented Google Colab notebook
- Visualizations of feedback trends
- Sentiment analysis summary
- Recommendations for improvement

👤 Author

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