

ASSIGNMENT

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Course Foundation of Data-Driven Decision Making

Code ETSE DD111

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Submitted to Mr. Satinder Pal Singh

[Task 1 : Short Survey on Student Satisfaction]

To understand overall student experience in college, I designed a 10-question survey that covers academics, facilities, hygiene, safety and placement support.

* Survey Questions :

- 1) Rate your satisfaction with college infrastructure.
- 2) Are the teaching methods effective?
- 3) How satisfied are you with campus cleanliness?
- 4) How supportive are teachers and faculty?
- 5) Rate the college's internship/placement opportunities.
- 6) Do you feel the management listens to students' concerns?
- 7) How do you rate canteen food/services?
- 8) Do you feel safe on campus?
- 9) Overall satisfaction with college?
- 10) Any suggestions for improvement?

[Task 2 : Data Collection (With Sample Spreadsheet Rows)]

- I collected 15 responses using Google Forms and stored them in an Excel sheet. Here is the sample data of the sheet, each row representing one student's answer :

Student Name	Teaching Quality	Infra-structure	Hygiene	Place-ment	Overall Satisfaction	Comments
• Aditi Sharma	4	5	4	3	4	Good facilities, canteen can improve
• Rohan Mehta	3	4	3	2	3	Needs better internship opportunities
• Priya Singh	5	5	4	5	4	Very satisfied
• Aarav Patel	4	3	4	3	4	Labs need some upgrading

- * This helped me understand how raw feedback is structured and stored.

[Task 3 : Data Cleaning]

* While going through the collected responses in the spreadsheet, I noticed a few common data problems that usually happen in surveys. There were missing ratings, one duplicate submission and some inconsistent formatting in the comment section. These type of issues can affect the accuracy of my analysis, so proper cleaning was needed.

To clean the data properly, I took the following steps:

- Duplicate Removal : I identified a repeated entry caused by accidental double submission and removed the double row.
 - Handling Missing Values : A few responses didn't rate certain questions. I filled those missing values with the average of that particular column.
 - Standardizing Text : I converted all comment text into consistent formatting to avoid confusion during analysis.
 - Formatting Consistency : Ensured all rating columns had numeric data only, removed extra spaces, aligned all cells for clean presentation.
- * After these steps, the dataset looked clean, structured and ready for analysis. This process made me realize how even small errors can greatly impact results, and why cleaning is a crucial step before using any data.

[Task 4 : Ethical Considerations]

* Ethical handling of data is important, even for a simple student survey. I made sure that the survey's responses stayed anonymous and that no sensitive or personal information was asked from participants. The survey only focused on college-related feedback, so privacy was maintained easily.

I also ensured that the collected data was stored safely and not shared with anybody outside the assignment purpose. Another important part of ethics is being honest with results so I didn't change or manipulate any answers. Overall, following basic ethical rules helps protect people's privacy and keeps the data trustworthy.