PROJECT TITLE :
Student Result Visualization

PREPARED BY : ADARSH KUMAR

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Question:

Can you design a visual report that displays student marks, averages, and grade distributions Across subjects?

Summary:
This project helps visualize academic performance by student and subject, enabling educators to assess trends and identify underperforming areas.

Procedure:
• Import student marks dataset
• Calculate averages and assign grades using DAX
• Create visuals: subject-wise bar chart, pie chart for grade distribution
• Add filters for class or exam term

Expected Result:
An interactive report showing subject-wise scores, grade ratios, and top performers by class.

Repository file : https://github.com/adarsh-0224/Student-Result-Visualization-Report.git
Power BI file : https://github.com/adarsh-0224/Student-Result-Visualization-Report/blob/main/Student%20Visualization%20Report%20(1).pbix

A Comprehensive Report on Student Academic Performance Metrics

1. Overview

This document aims to provide a thorough analysis of students' academic performance based on the information supplied. Its goal is to visualize key performance indicators, such as individual student marks, subject-specific mean scores, and grade distribution, to help teachers recognize trends and pinpoint students who have attained the highest level of academic distinction.

The current analysis has been systematically divided into the following thematic sections:

- Finding Top Performers: The process of determining which student in each distinct academic class has received the highest score.

- Subject-Matter Analysis: A thorough analysis of the average academic achievement in each subject being considered.

- Grade Distribution: A visual depiction of how grades are distributed among all students.

2. Overview of the Dataset

Information about one thousand students is included in the dataset under consideration, which is organized using the following crucial data fields:

- Student_ID: An alphanumeric code that is specific to every student.
- Student_Name: The complete proper name used to identify a student.
- Class: A student's assigned grade level or academic year, which can range from one to twelve.
- Section: The specific academic division, represented by the letters "A" or "B."
- Term: Either "Term 1" or "Term 2" refers to the academic semester in which the assessment was administered.
- Math, Science, Social Science, English, and Hindi: The scores a student received in each of the listed subjects.
- Marks_Score: The total of a student's grades in all subjects.

- Total_Marks: The highest score that can be achieved, which is consistently 500.
- Percentage: A percentage representing the overall performance metric.
- The assessment's binary result is either "Pass" or "Fail."
- Grade: A student's academic classification based on their attained percentage.

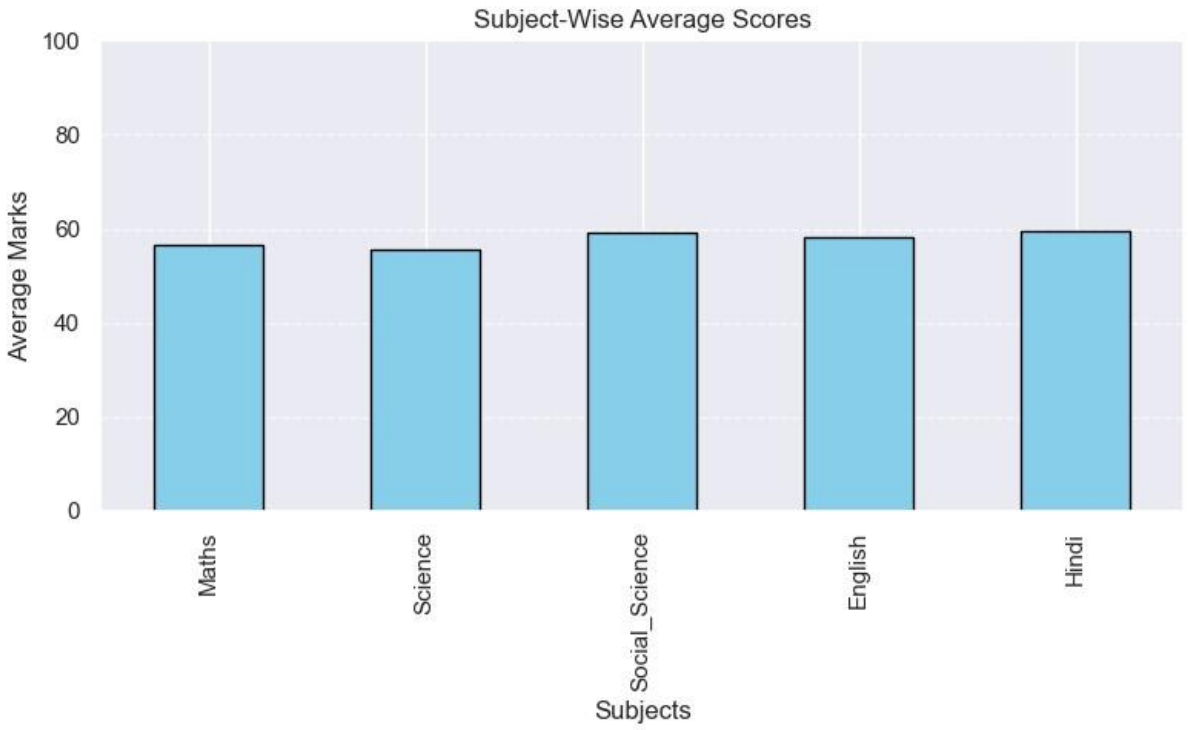
3. Finding the Best Performers

The following tabular data, which is arranged in descending order according to the percentage metric, shows the students who have shown the highest level of academic achievement in each respective class. The purpose of this data is to identify those members of their respective cohorts who have demonstrated outstanding academic ability.

Serial No.	Class	Student ID	Student Name	Section	Term	Percentage	Grade
1	1	S376	Morey Fairhall	A	Term 1	77.4	B+
2	2	S315	Briney Cayton	B	Term 1	89.2	A
3	3	S259	Kingsley Do Rosario	B	Term 2	86.8	A
4	4	S167	Randolf McNiven	A	Term 1	86.0	A
5	5	S920	Dael Gresty	A	Term 1	79.8	B+
6	6	S428	Marilin Cortes	A	Term 1	81.6	A
7	7	S726	Stewart Hunter	B	Term 2	88.2	A
8	8	S723	Anthiathia Corcoran	A	Term 1	80.6	A
9	9	S139	Kasey Houseago	B	Term 1	81.0	A
10	10	S703	Leonard Killshaw	B	Term 1	84.4	A
11	11	S040	Vergil Bourrel	A	Term 1	80.6	A
12	12	S106	Nico Baumer	A	Term 2	82.6	A

4. Analysis of Subject Matter

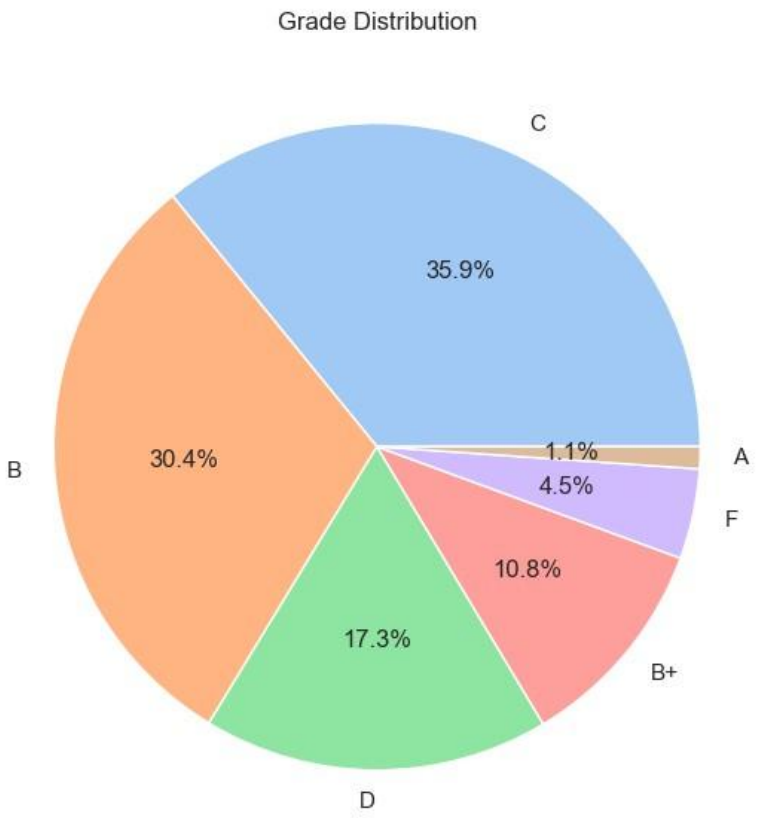
In order to identify institutional strengths and areas that require improvement, this section of the report focuses on a thorough analysis of the average academic performance across a variety of subjects.



The goal of the following visualization is to give a clearer picture of each subject's mean scores.
Analyzing the data shows that the average scores for every subject are remarkably equal, which could be seen as a sign of well-rounded academic achievement.

5. Distribution of Grades

An examination of the grade distribution offers a high-level view of the overall performance of the students. The percentage of students in each grade category (A+, A, B+, B, C, D, and F) is shown in the pie chart that follows.



This graphic shows the proportionate representation of students within each grade classification and offers a succinct summary of overall academic achievement.

6. Conclusion

In summary, this report provides a clear and thorough summary of student performance based on the dataset that was supplied. The distribution of grades provides information that can be used to inform and improve pedagogical strategies, and the data show consistent and equitable academic performance across all subjects. The methodical selection of the best students in each class accomplishes two goals: it establishes a standard for academic excellence and acknowledges exceptional accomplishment. The complete analysis is proposed as a useful tool for educators tasked with monitoring and improving student performance.