

1. Student Performance Analysis

Objective: The goal is to identify the most significant contributors to academic success and provide actionable insights for educators, parents, and policy makers.

Instructions:

- Does family_income correlate with access to resources or final scores?
- What is the average exam_score for each gender?
- Do students attending different school_types perform differently?
- What is the average performance among students with and without learning_disabilities?
- How do students with high vs. low motivation_level compare in terms of performance?
- Compare categorical variables like gender, school_type, and internet_access.
- What percentage of students participate in extracurricular_activities?
- How does hours_studied relate to exam_score? (Use scatter plots or line charts.)
- Do students with higher attendance perform better?
- What is the average exam_score across different school_types or parental_education_levels.
- Performance difference between students with and without internet_access?

- What are the average scores by gender, family_income_group, or motivation_level?
- . How does performance vary among students who have learning_disabilities?
- Do students who participate in physical_activity or extracurricular_activities perform differently?
- Can you summarize your findings in a clear and concise way?
- What visualizations best represent the relationships or patterns you've discovered?
- What are three actionable recommendations you could make based on your analysis?