Analysis on How External Factors May Affect Student Academic Performance

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Background:

The data was collected from the Faculty of Engineering and Faculty of Educational Sciences students in 2019. The information collected from each student ranges from basic demographic to classroom and study habits. Along with the information collected was the student's cumulative GPA from the past semester out of a 4.0, their expected cumulative GPA during graduation, and their grades ranging from pass to fail (0: Fail, 1: DD, 2: DC, 3: CC, 4: CB, 5: BB, 6: BA, 7: AA).

Target Clients:

The target clients for this proposal are educators and students.

The analysis from this project would be beneficial to both educators and students to monitor their cumulative GPA. Knowing which factors affect their grades the most would aid educators and students in developing a plan to improve their grades.

Data and Target Approach:

Data Source:
https://www.kaggle.com/datasets/csafrit2/higher-education-students-performance-evaluation

Tentative Approach:

1. Gather data
2. Clean data and check for any missing values or outliers
3. Select which features affect the expected cumulative GPA the most and identify any patterns with visualizations
4. Create possible models for predictions
5. Select best model for predictions

Deliverables:

The results and visualization will be presented through slides with code snippets from jupyter notebook.