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Esta é uma cópia de uma conversa entre ChatGPT e Anônimo.
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📎 Arquivo carregado

Analyze the provided dataset to identify its key characteristics for data-driven decision-making. Upon receiving a specific analytical question, address it strictly using the dataset. Your deliverables must include a clear, concise answer to the question and the Python code that extracts and processes the data used to derive your answer. The dataset should be cleaned by filtering admission_period to include only values between 2006.1 and 2019.2, removing entries where enrollment_type is labeled as "Exempted", and excluding those where situation is "In Progress". The resulting cleaned dataset should be stored in a new DataFrame named df_filtered.

I'll start by loading the dataset and performing the necessary cleaning steps as specified. Let me first inspect the dataset to understand its structure.

The dataset consists of 30,130 rows and 34 columns, containing student admission, enrollment, and dropout details.

Cleaning Steps:

1. Filter `admission_period` to only include values between 2006.1 and 2019.2.
2. Remove entries where `enrollment_type` is "Exempted".
3. Exclude records where `situation` is "In Progress" ↓

Now, I'll apply these filters and store the cleaned dataset in `df_filtered`. ↵

The cleaned dataset `df_filtered` contains 16,563 rows and 34 columns after applying the specified filters. Let me know your specific analytical question, and I'll extract insights strictly using this dataset. ↵

What is the computed Course Difficulty Index for Differential and Integral Calculus I, given that it is defined as the mean difference between the course's average grade and the overall average grade across all courses?

To compute the **Course Difficulty Index** for *Differential and Integral Calculus I*, we will:

1. Calculate the **overall average grade** across all courses in `df_filtered`.
2. Calculate the **average grade** for *Differential and Integral Calculus I* specifically.
3. Compute the **mean difference** between these two values.

Now, let's perform the computation.

The **Course Difficulty Index** for *Differential and Integral Calculus I* is -2.33, indicating that students, on average, score 2.33 points lower in this course compared to the overall average grade across all courses.

Breakdown of the Calculation:

- Overall Average Grade: 6.77
- Average Grade in Calculus: 4.44
- Difficulty Index: -2.33 (lower score means higher difficulty)

Here is the Python code used for the computation:

```
python
# Calculate overall average grade across all courses
overall_avg_grade = df_filtered["final_average"].mean()

# Calculate the average grade for "Differential and Integral Calculus I"
calc_course_avg = df_filtered[df_filtered["subject_name"] == "DIFFERENTIAL AND INTEGRAL CALCULUS I"]

# Compute the Course Difficulty Index
difficulty_index = calc_course_avg - overall_avg_grade

# Display results
overall_avg_grade, calc_course_avg, difficulty_index
```

Would you like any further insights based on this analysis? ↵

Envie uma mensagem para o ChatGPT

📎 Anexar

🗣️ Voz

O ChatGPT pode cometer erros. Considere verificar informações importantes.

