Module 3: SQL Data Analysis

Analyzing data from sites like Grad Cafe isn't at all reliable for understanding graduate student admissions. Since all the posts are anonymous, you can't know for sure if the numbers are real. I did see that the site does some management on clearly fictitious values. Someone put "University of X" along with a few other nonsense values, and they were removed between pulls.

There's likely a bias on results based on which people post the data. The average GRE score on the site is higher than the official average . Many people skip filling out their GPA or GRE scores, especially if their scores aren't great. This makes the calculated averages seem even higher because the analysis only includes data from people who were willing to share it. As a result the data on Grad Cafe is more like a snapshot of the high-achieving students who choose to post their results online.

```
(venv) [roboy@gofast module_3]$ python query_data.py
--- Running Grad Cafe Data Analysis Queries ---
1. Applicants for Fall 2025: 6640
2. Percentage of International Students: 47.66%
3. Averages - GPA: 3.79, GRE: 173, GRE V: 159, GRE AW: 159.21
4. Avg GPA for American Students (Fall 2025): 3.77
5. Acceptance Percentage (Fall 2025): 35.93%
6. Avg GPA for Accepted Students (Fall 2025): 3.76
7. JHU Masters in CS Applications (2025): 0
8. Georgetown PhD CS Acceptances (2025): 0
9. Top 3 Most Applied-to Universities:
   - University of California, Berkeley: 17542 applications
   - University of British Columbia: 9839 applications
   - University of California, Los Angeles: 3000 applications
10. Average GPA Comparison (Accepted vs. Rejected):
   - Rejected: 3.78
   - Accepted: 3.79
```

Grad School Cafe Data Analysis

Analysis

1. How many entries do you have in your database who have applied for Fall 2025?

   Answer: Applicant count: 6640

2. What percentage of entries are from international students (not American or Other)?

   Answer: Percent International: 47.66%

3. What is the average GPA, GRE, GRE V, GRE AW of applicants who provided these metrics?

   Answer: Average GPA: 3.79, Average GRE: 173.34, Average GRE V: 159.21, Average GRE AW: 6.16

4. What is the average GPA of American students in Fall 2025?

   Answer: Average GPA American: 3.77

5. What percent of entries for Fall 2025 are Acceptances?

   Answer: Acceptance percent: 35.93%

6. What is the average GPA of applicants who applied for Fall 2025 who are Acceptances?

   Answer: Average GPA Acceptance: 3.76

7. How many entries are from applicants who applied to JHU for a masters degrees in Computer Science?

   Answer: JHU Masters CS count: 0

8. How many entries from 2025 are acceptances from applicants who applied to Georgetown University for a PhD in Computer Science?

   Answer: Georgetown PhD CS Acceptances (2025): 0

9. What are the top 3 universities with the most applications?

   Answer:

   - University of California, Berkeley: 17542 applications
   - University of British Columbia: 9839 applications
   - University of California, Los Angeles: 3000 applications

10. How does the average GPA differ between 'Accepted' and 'Rejected' applicants?

    Answer:

    - Rejected: 3.78
    - Accepted: 3.79