ATHLETE TO ATHLETE

Introduction

Pretend you are assisting a movie research company in analyzing trends in the industry. The company wants to better understand box office performance. Your assignment is to write some code to gather the information they need.

Guidelines

- Ask questions if something is unclear!
- You are welcome/encouraged to look at online documentation, but you should not get help from other humans or platforms that generate code for you.
- There is no "correct" answer. We are trying to understand how you think and what interests you, not give you a grade.

Primary Task

- Create a relational database to keep track of the necessary theater and movie information.
- In your database, you should have at least 2 theaters and 2 movies.
- In your database, you should keep track of each movie's sales at each theater for each calendar day. You should have at least 2 days of data. Therefore, you will have at least 8 data points (e.g. Movie 1, Theater 2, May 9th).
- Write two programs in two different languages that prompts a user for a calendar date (e.g. 5/9/2024) and then interacts with your database to find which movie theater generated the most sales for that day. Be conscious of potential bad actors making queries!

Supplemental Task (optional)

Choose some way to extend one of your solutions that exhibits some aspect of software engineering that interests you. You can consider using third-party libraries, transforming your solution into a webpage, exploring performance implications, adding graphics, leveraging generative AI to assist the research company, etc. Any work that is clear, correct, and provokes discussion is welcome!

Deliverables

- All deliverables should be put into a GitHub repository, please share the GitHub repository link as your final submission
- Explanation of the schema and database dump files to show data created.
- The two sets of code you wrote to accomplish the task.
- A few explanatory sentences on your extension and why you chose it (optional).
- Any other information you think would be helpful for us to understand your solution.