Database Management Systems
Relational Algebra: Activity 1

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Background

In this activity, you will work with a Retro Movie Database that contains a curated selection of movies released between 1980 and 2000. The dataset includes key details such as name, rating, genre, year, score, director, country, budget, gross, company, and runtime. Your task is to explore complex selection and projection queries to extract meaningful insights from the database.

Imagine that these queries will be used in the backend of a movie website, where different buttons allow users to retrieve specific movie-related information. Your goal is to write efficient SQL queries that support these functionalities, ensuring that relevant data is retrieved correctly when needed.

Since this database is static (i.e., no updates will be made), normalization is not a primary concern. Instead, you will focus on query optimization, filtering criteria, and selecting relevant attributes to support different website features.

Query Tasks

Ask interesting questions and write SQL queries to retrieve the following insights from the database:

Example questions

- Which genre had the lowest average rating score in 1999?

- Which low-rated movie had the highest gross collection?

Note: Refer Sections 7 and 8 from SQL notes for data retrieval syntax.