

Data Storage and Retrieval
Class Quiz:
Worth 5% of overall grade.
Tuesday 19th November 2024

Consider the Hollywood movies relational database schema:

- Movies(Title, Type, Studio, SequelOf)
- Release(MovieTitle, Year, LengthMins)
- Stars(Actor, Studio, Salary)
- Studio(Name, Address)
- ActsIn(MovieTitle, ReleaseYear, Actor, bonus)

Question 1: Following best practices for clarity of expression, provide the relational algebra for the query “What are the name and years of releases longer than 2 hours released by studio ‘Universal’ ?”

Question 2: Provide the SQL statement for the query “List the studios that have released movies after 2011 that are longer than 3 hours.”

Question 3: In what order should you create the following tables?

Student(Name, ClassSubject, CampusName, GPA)

Course(Title, Degree, CampusName)

Campus(Name, Address)

Class(CourseTitle, Year, Subject)

Question 4: When does the cardinality of a relation change during the development and lifetime of a relational database?

Question 5: Provide the schema to represent the following ER diagram and state any foreign key constraints.

