UNIVERSITY OF MORATUWA
Faculty of Information Technology
BSc. (Hons) in Information Technology
BSc. (Hons) in Information Technology & Management
IN2400 - Database Management Systems
Tutorial – Query Optimization

Question 01:

Basic principle in query optimization is to complete the SELECTs as the earliest, and to delay the JOINs as much as possible in designing the query.

Justify this principle with the aid of the following relational schema, and respective query requirements.

        Theatre (TheatreID, TheatreName, ContactNo)
        Movie (MovieID, Title, Director, Duration)
        Show (TheatreID, MovieID, StartDate, EndDate)

   − There are 10 Theatres and 5000 Shows in the database.
   − Only 100 shows are for the Movie 'M1'
   − Memory can hold up to 500 tuples at a time.

Query: Find the Names of the theatres in which screen the movie with the MovieID 'M1'

Question 02:

Event (EventID, EventName, Duration, OrganizedBy)
Organizer (OrganizerID, OrganizerName, OrganizerContact)

   − There are 50 organizers and 500 events in the database.
   − Only 150 events are organized by Shehan Perera
   − Memory can hold up to 100 tuples at a time.

Query: Find the names of the shows which are organized by the organizer named 'Shehan Perera'