Lab 10

Objectives

In this lab you can practice Data Definition and Data Manipulation statements.

Database Schema

- Open a new tab and save the script as *exercisesetup.sql*.
- Set up a database called *EmployeeDetails*.
- Create tables for each of the following relations:

Department(dName, location)
Primary key dName

Employee(PPS, fName, lName, gender, salary, DOB, dName)
Primary key PPS
Foreign key dName references Department(dName)

Project(projCode, description, budget, dName)
Primary key projCode
Foreign key dName references Department(dName)

WorksOn(PPS, projCode, hours)
Primary key PPS, projCode
Foreign key PPS references Employee(PPS)
Foreign key projCode references Project(projCode)

- Populate the tables with data.
    - Add 2 Department records (HR and Computing).
    - Add 8 Employee records (2 work in HR and 6 in Computing).
    - Add 4 Project records (1 project belongs to HR, 3 belongs to Computing).
    - Add 14 Workson records where each project is worked on by many employee and each employee works on at least one project.
- Save the script (*exercisesetup.sql*).

Data Manipulation

- Open a new (blank) script and save it as *exercisequeries.sql*.
- Add queries that will return records using:
    - No WHERE clause
    - Using WHERE….IN
    - Using WHERE….BETWEEN
    - Using WHERE….LIKE
    - Date functions
    - At least five examples of multi-table JOINs
    - Aggregate functions
    - GROUP BY
    - GROUP BY…HAVING
    - ORDER BY
    - OUTER JOINs
- Save the script (*exercisequeries.sql*).