Fall 2013

SOFE 3700U Data Management Systems

Lab # 4: Advanced Selection Queries

Submission Type: **INDIVIDUAL WORK**

Objectives:
- Using JOINs
- Subqueries

Important Notes:
- Save all your lab-related files as you may need them for future labs.

Selection Queries:

The following tables form part of a hotel database held in a relational DBMS:-

Hotel	(hotelNo, hotelName, city)
Room	(roomNo, hotelNo, type, price)
Booking	(hotelNo, guestNo, dateFrom, dateTo, roomNo)
Guest	(guestNo, guestName, guestAddress)

Where Hotel contains hotel details and hotelNo is the primary key;
Room contains room details for each hotel and (roomNo, hotelNo) forms the primary key;
Booking contains details of the bookings and (hotelNo, guestNo, dateFrom) forms the primary key;
Guest contains guest details and guestNo is the primary key.

1. Sub queries and Joins:

a) **List the price and type of all rooms at the Grosvenor Hotel.**

b) **List the details of all rooms at the Grosvenor Hotel, including the name of the guest staying in the room, if the room is occupied.**

HINT: Use LEFT JOIN for this statement

c) List the rooms that are currently unoccupied at the Grosvenor Hotel

HINT: Use the NOT IN operator for finding the unoccupied rooms. You will need to first determine the rooms that are occupied in the inner query and then use the NOT IN operator in the outer query. To determine whether a room is occupied or not, you will need to select some columns from the Booking table and use dateFrom and dateTo for your search condition.

d) List the number of rooms in each hotel in London

What to submit:
Submit a Word or PDF document that includes:

- Section 1: Answers to questions a, b, c, and d.

Submit via Blackboard: Labs → Lab4

- Name your file as follows: **StudentID.[doc or docx or PDF]**