Fall 2013

SOFE 3700U Data Management Systems

Lab # 3: Selection Queries

Submission Type: **INDIVIDUAL WORK**

Objectives:
- Selection queries
- Aggregate Functions

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. Simple Queries: (4 marks)

a) **List the names and addresses of all guests in London, alphabetically ordered by name (1 mark)**

HINT: Use the guestAddress column. Assume that guestAddress contains the city as well (Use pattern matching operator.).No inner joins are required for this selection query.

b) **List all double or family rooms with a price below £40.00 per night, in ascending order of price. (1.5 marks)**

HINT: Assume that D is the value for Double room type, and F is the value for Family room type.

c) **List the bookings for which no dateTo has been specified. (1.5 mark)**

2. Aggregate Functions: (6 marks)

a) **How many hotels are there? (1 mark)**

b) **What is the average price of a room? (1.5 marks)**

c) **What is the total revenue per night from all double rooms? (1.5 marks)**

HINT: Assume that D is the value for Double room type.

d) **How many different guests have made bookings for August? (2 marks)**

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

- Section 1: Answers to questions a, b, and c.
- Section 2: Answers to questions a, b, c, and d.

Only one document is required per group.

Submit via Blackboard: Labs → Lab3

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