COMP1140 – S2, 2017
Prac/Tute Week 8
School of DCIT, University of Newcastle
Callaghan, Australia

SQL Exercises

1. The following tables form part of a 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 bookings and (hotelNo, guestNo, dateFrom) forms the primary key;
   Guest contains details and guestNo is the primary key

   Download HotelSystem.sql script from Blackboard -> Course Materials -> Tutorial Materials -> LabWeek08. Execute the script from your SQL Server. Write the following queries in T-SQL:

   i. List the price and type of all rooms at the Grosvenor Hotel,

   ii. List all guests currently staying at the Grosvenor Hotel.

   iii. What is the total income from bookings for the Grosvenor Hotel today?

   iv. List the number of rooms in each hotel with more than 1 room and located in Newcastle.

   v. What is the most commonly booked room type for each hotel in London? Print the type and the number of the booked room.

2. Download RegSystem.sql script from Blackboard-> Course Materials -> Tutorial Materials -> LabWeek08, which is a schema of a simple student registration database. Execute the script from your SQL Server. It is recommended to create a separate database for the exercise.

   Based on the registration schema, write statements in T-SQL to perform the following.

   i. Find the student number of students who have registered to the same courses as "Robert Kent".

   ii. For semesters with 2 or more students registered, find the total number of students registered in them. Print the semester, year and total number of registered students.

   iii. Print the number of students registered to each course. Note that some courses may have no students. Print the course id, course name and number of students registered.

   iv. Find the most popular course(s). The most popular course contains the highest number of students registered to it. Print the course id and course name.

   v. Find the most unpopular course. Print the course id and course name.

   vi. Find the student number of students who have done a course with student "Robert Kent" in semester 2, 2014.