COURSE: DATABASES

ASSIGNMENT 6

SQL FUNDAMENTALS

SIMPLE QUERIES

SQL SERVER MANAGEMENT STUDIO

Theory part:

Simple queries using SQL.

Practical part:

This is the first in a series of three exercises. You will go through the fundamentals of Structured Query Syntax. Starting from simple ones and going into ones that are more complex.

First, create the database DREAMHOME. You have to have good enough database in order to be able to practice SQL query commands. This database will be used also in the future assignments (with the next two ones).

Use the scripts provided (in the Moodle) to create the tables and add the meaningful information to all the tables. Be sure that no errors take place when you use the scripts.

Create the needed SQL Statements. In your word document, include your statement and what you received from your database. With datetime column (for example in your query in question number one) experiment FORMAT() method, with decimal() column (for example in your query in question number two) experiment CAST() method.

1. List all staff with age greater than 50 years. Include at least FirstName, FamilyName, and DateOfBirth from Staff table in your result table.

2. Produce a list of monthly salary for all staff, showing at least the first and last names, and salary details. Expect to have annual salary information in table Staff.

3. Find all owners who live in Glasgow. Include at least FirstName, FamilyName, and City from PrivateOwner table in your result table.

4. Produce a list of all staff, arranged in alphabetical order of first name (… and as a second step in order of age).

5. Produce a list of properties for rent in order of property type (major sort key) in ascending alphabetic order, and within property type, in descending order of rent (minor sort key). In minimum, you will have the columns TypeOfProperty and Rent in your result table.

6. List the number of properties in each property type.

7. List the number of properties managed by each staff member. This is a bit artificial. You might have the columns StaffId (from PropertyForRent table) and NumberOfProperties in your result table.

8. Has there been properties viewed more than once? Again a bit artificial (now that you concentrate only on one table). You might have columns PropertyForRentId (from Viewing table) and NumberOfViewings in your result table.

9. What is the average rent for each property type? You might have columns TypeOfProperty (from PropertyForRent table) and AverageRent in your result table.

Build one Word document where you copy and paste all the source code (from the final solution) you have generated during solving the task. Your word document should also show the functional details of the solution. One generic example from functional details: if the task is to make some calculations with the user input, use print screens to show one successful use case where the input is received and calculations will be completed. Your document need not be a complete road map from each individual step, but it should still be understandable and show street credibility to the outside reader. Use exactly the same format you would use with the thesis document (not description sheet, please!), or alternatively use the shorter report template. You can find the instructions from the student intranet.

Theory part can be at the beginning of or at the end of your word document where you have your **Practical part**. Remember to add all the references used in your document!

Take your script files together with your Word file and zip it into one file. Return that composite zip file to Moodle.

Assessment: Half from the points come from **Theory part**, another half from **Practical part**.

Submit your task before deadline! It is not possible to return this task after the deadline.