COURSE: DATABASES

ASSIGNMENT 8

SQL FUNDAMENTALS

JOIN OPERATIONS

SQL SERVER MANAGEMENT STUDIO

Theory part:

Join operations in SQL.

Practical part:

This is the third 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 has been used also in the previous assignments (with the previous 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 statements and what you received from your database as a result table.

1. List some information of all private owners, along with some information of their properties for rent. Include at least columns FirstName and FamilyName from PrivateOwner table and columns Street and TypeOfProperty from PropertyForRent table. Put the list in order of Familyname. Use JOIN or INNER JOIN operation.

2. Find the number of properties handled by each staff member. Include column FamilyName from Staff table. Use JOIN or INNER JOIN operation. NOTICE! Using JOIN or INNER JOIN means that those properties which are not managed by any staff member will not be included. Neither will those staff members who have nothing to manage be included.

3. Does each staff member have at least one property for rent to manage? Include at least columns FirstName, FamilyName and Position from Staff table and columns Street and TypeOfProperty from PropertyForRent table. Execute LEFT OUTER JOIN or LEFT JOIN with Staff and PropertyForRent tables.

4. Is each property for rent managed by a staff member? Include at least columns FirstName and FamilyName from Staff table and columns Street and TypeOfProperty from PropertyForRent table. Execute RIGHT OUTER JOIN or RIGHT JOIN with the Staff and PropertyForRent tables.

5. List what is available for rent in the company. Choose columns TypeOfProperty and Rent from PropertyForRent table and column Street from Branch table (so you can also see which Branch offers what from the list). Make it so that TypeOfProperty serves as major sort key and Rent as minor sort key.

6. List the names of all clients who have viewed a property, along with any comments supplied. Include at least columns FamilyName and FirstName from Client table and column CommentsGiven from Viewing table. Organize the list in alphabetical order of FamilyName.

7. Same as previous task but this time exclude those who did not give any comments.

8. List the names of all staff and the street address where they work. Choose at least columns FirstName and Familyname from Staff table and column Street from Branch table. Organize the list in alphabetical order of FamilyName.

9. Who are the owners for the properties for rent and what do they own? Include at least columns FirstName and Familyname from PrivateOwner table and columns Street and TypeOfProperty from PropertyForRent table.

10. Now you need to know what kind of properties each branch offers. Choose at least column Street from Branch table and columns Street, TypeOfProperty, and Rent from PropertyForRent table. Choose column Street from Branch table as your major sort key and column TypeOfProperty as your minor sort key.

11. Something interesting unsolved (in the area of JOIN operations)? What?

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.