



DATABASE

ASSIGNMENT 4

Individual - 10 %

This assignment has been designed to focus on using utilizing subqueries and joins.

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COMP 2003 Relational databases

Assignment 4 – Relational Databases

This assignment requires you to create, populate, and manipulate a database using SQL, then use subqueries and joins to extract relevant data. Your mark in this assignment counts for 10% of your final grade.

Assignment Requirements:

This is an individual assignment. All submitted work is to be your own work. Please ensure that you are familiar with the academic integrity policies referred to in the course syllabus.

Please submit your work as a Word document (docx - not pdf) as well as your finalized SQL script (sql).

Report formatting

- Name your report file *YourName_Assignment4.docx*
- Give your report an appropriate title with separate title page.
- Please include your name and student number
- For each question, please include the questions' number and text.
- Please include the text of your queries (including comments, and a screenshot which clearly shows the execution of your commands and the results. You might need to send more than one screenshot to show the results for each question).

SQL formatting

- Name your SQL script *YourName_Assignment4.sql* and complete all of your SQL work in this file. Inside I should find all your SQL commands required to complete the assignment.
- Please include your name and student number
- The data provided (a4_data.sql) is solely for the purpose of populating your database with data – do not complete your SQL work in this file.
- Utilize the SQL Standards document provided in week 2 – with note to capitalization of keywords and lower-case database, table and field names.
- Complex statements should be broken over several lines as appropriate
- Remember to add a brief descriptive comment for each query. You do not need to document every single line, but you must demonstrate that you understand what the SQL is doing.
- Please write in complete sentences in the commenting for relevant questions.

Submitting your assignment

- Create a zip file containing your SQL script and report
- Submit assignment zip file via course website. Do not submit via email.

Evaluation Method

For this assignment there are 80 potential marks available to you:

- **Execution (25%):** 21 marks will be assigned whether the script will run as provided.
- **Accuracy (50%):** 39 marks will be assigned whether the question is answered correctly.
- **Structure (15%):** 12 marks will be assigned for well-structured scripts that follow SQL standards. i.e. capitalized commands, lower case field names with underscores where needed, new lines, etc.
- **Commenting (10%):** 8 marks will be assigned for helpful, descriptive comments to be included throughout the script

If you have any questions, please do not hesitate to ask me.

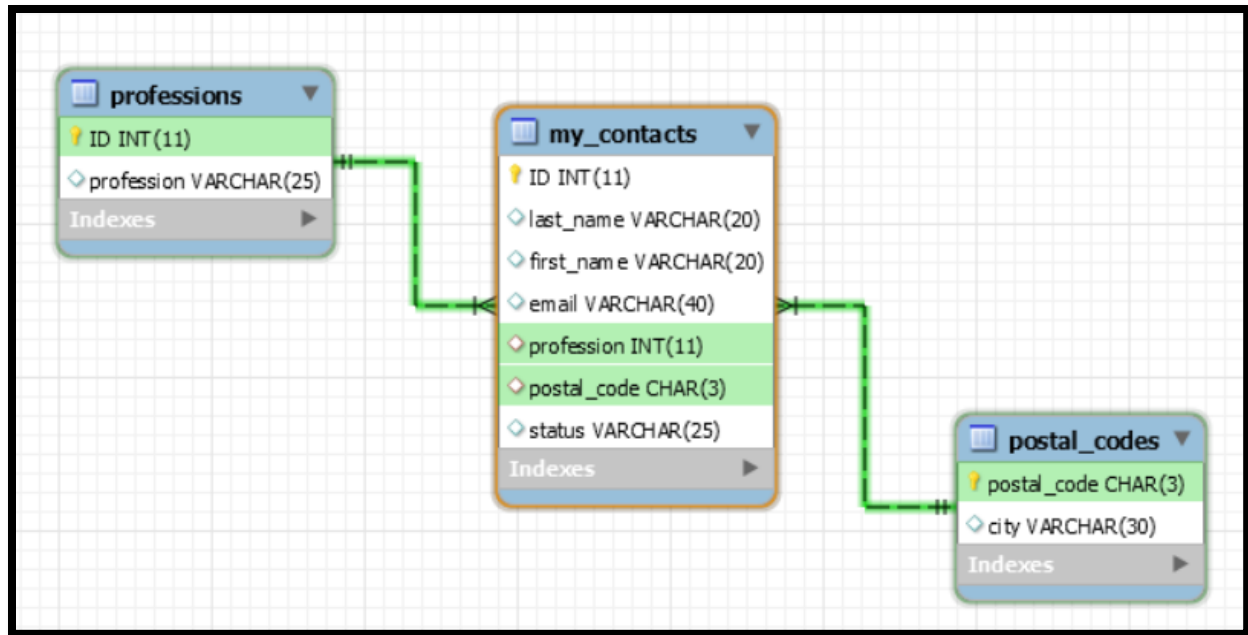
Good luck.

Part One:

Create a database for this assignment then Use the a4_data.sql file to populate your assignment database.

1. Using a join *do not use a subquery*, please build a query that will return the first name, last name and email of any software developers in my_contacts.
2. Using a subquery *do not use a join*, please build a query that will return the first name, last name, and profession, of the contact who uses the email address tinfoilhat@conspiracy.ca.
3. At your discretion, please use any combination of subqueries and joins to return the first name, last name, profession and postal code of anyone living in Churchill, ON.

Database Schema



Part Two:

Using the table structures and relationships from *professions* and *my_contacts* in the schema provided in Part One as an example, in Part Two you will create a table for *status* values and link those values to people in *my_contacts* using a surrogate key.

1. Create a table called *status* selects and groups all *status* values from *my_contacts* and stores the unique values in the new table.
2. (If you need to) alter the new *status* table to contain a primary key – if you did this in the last step you can skip to step 3.
3. Use an UPDATE statement to make the *my_contacts.status* column to contain the *ID* values from the *status* table (rather than the status values as provided)
4. After step 3 is successful, choose whether to *MODIFY* or *CHANGE* the *my_contacts.status* column to be an integer field because it is now storing status IDs rather than status values, and do so. In your report, justify your choice of *MODIFY* or *CHANGE*.