

## CPSC 4620 – Homework 4

Advanced SQL Statements

100 Points

Due Monday, June 10<sup>th</sup> at 11:59 pm

Use the example Company DB to write SQL statements to complete the following. If the request is a Query, show the results. For any queries, ignore any values that we have inserted or updated in any other questions. Note that I do not refer to employees by their SSN, or projects or departments by their numbers. You should not use specific SSN's, project or department numbers in your queries, unless they are given in the prompt. Use joins or nested queries to work with multiple tables. Do not just connect them using foreign keys in the where clause, use joins or nested queries. So it is acceptable to say "SELECT \* FROM Employee JOIN Department ON Dno = Dnumber Where Dname = 'Research';" or "SELECT \* FROM Employee WHERE Dno IN (SELECT Dnumber from Department WHERE Dname = 'Research');" It is not acceptable for this homework to say "SELECT \* FROM Employee, Department WHERE Dno = Dnumber AND Dname = 'Research';"

When I ask "Who" or "Which Employees" that means I want to see the employees first and last names.

1. Who works on the Reorganization project?
2. Who works in on a project that is located in Stafford? Do not show any repeated names.
3. Which Employees have a Daughter, and what is the daughter's name?
4. Tell me the names and addresses of all the managers, as well as the number of dependents they have (even if they have zero dependents).
5. Show me the names of all the employees who have a supervisor.
6. What are names of employees who work in the Administration department who make less money than at least one employee who works in the Research department.
7. For each Project, show the project name, the number of employees who work on the project, and the average hours per week each employee works on that project. Order the results alphabetically by the name of the project. A project could have 0 employees working on it.
8. For each employee, show the number of projects they work on. They could work on 0 projects.
9. Show the names of all dependents who are dependents of someone who works on the reorganization project.
10. For employees who make less than \$30000, change their salary to \$30000. For all other employees, give them a 10% raise. (This should be done in ONE SQL command)

Submission:

You will submit an electronic copy of your assignment on Canvas. Convert your assignment to a PDF to ensure it can be submitted. No late assignments will be accepted for this homework. This is an individual assignment, you may not work with a partner.