SQL Fundamentals – NESTED AGGREGATES

Often times there is more than one way to write an SQL statement to answer a question. However, for these assignment be sure to use the technique taught in the lesson if you can think of more than one way to write the SQL. The point of the lessons and assignments is to learn and practice each technique.

1. AW: Show employees and their average pay rate for a job. Show the business entity ID, job title, job count, first and last name, and pay rate..
2. AW: Show the department average of employee pay average, by job title. List the department ID and name, the job title, and average pay.

What to do:

1. In one file write all the SQL commands.
2. Before each command add the problem statement as a comment line.
3. The file must be a simple text file with a TXT or SQL file extension.
4. Test your commands and make sure they are error-free before submitting the solution file.

Solutions:

/\* Nested aggregates \*/

/\* AW: 1st: Show employees and their average pay rate for a job. Show the business entity ID, job title, job count, first and last name, and pay rate. \*/

select person.businessEntityID,

 FirstName, LastName, JobTitle, count(\*) as job\_count,

 avg(Rate) as Avg\_Pay

from AdventureWorks2008.Person.Person,

 AdventureWorks2008.HumanResources.Employee,

 AdventureWorks2008.HumanResources.EmployeePayHistory

where person.BusinessEntityID = Employee.BusinessEntityID

and Employee.BusinessEntityID = EmployeePayHistory.BusinessEntityID

group by person.businessEntityID, FirstName, LastName, JobTitle

;

/\* AW: 2nd: Show the department average of employee pay average, by job title. List the department ID and name, the job title, and average pay. \*/

select department.departmentID, department.name,

 jobTitle, avg(avg\_pay) as "Average Pay"

from AdventureWorks2008.HumanResources.Department,

 AdventureWorks2008.HumanResources.EmployeeDepartmentHistory,

 (select person.businessEntityID as EmpID,

 FirstName, LastName, JobTitle, count(\*) as job\_count,

 avg(Rate) as Avg\_Pay

 from AdventureWorks2008.Person.Person,

 AdventureWorks2008.HumanResources.Employee,

 AdventureWorks2008.HumanResources.EmployeePayHistory

 where person.BusinessEntityID = Employee.BusinessEntityID

 and Employee.BusinessEntityID = EmployeePayHistory.BusinessEntityID

 group by person.businessEntityID, FirstName, LastName, JobTitle

 order by BusinessEntityID

 ) SubQ

where EmployeeDepartmentHistory.BusinessEntityID = SubQ.EmpID

and EmployeeDepartmentHistory.DepartmentID = Department.DepartmentID

group by department.departmentID, department.name, jobtitle

order by department.name;