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Databases 3 : Using Transact-SQL : Exercises – Bex Hand In

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Exercises for section 1

1.1 Develop a statement that returns all columns from Paper

select \* from Paper;

1.2 Develop a statement that returns the semester ID and number of weeks in the semester

select DATEDIFF(week, StartDate, EndDate) as [weeks], SemesterID from Semester;

1.3 Develop a statement that returns a person's ID, family name

and Name Type, a statement about the length of the family name;

if the family name is 4 characters or less return 'short name'

if the family name is 5-8 characters long return 'middle length name'

if the family name is 9 characters or more return 'long name'

select PersonID, GivenName, FamilyName, len(FamilyName), FullName,

case

when len(FamilyName) <= 4 then 'short name'

when len(FamilyName) >= 9 then 'long name'

else 'middle name'

end

from Person;

1.4 Develop a statement that returns the starting dates of the first four semesters

select top 4 StartDate from Semester;

1.5 Develop a statement that returns every unique person given name only once

SELECT DISTINCT GivenName from Person;

Exercises for section 2

2.1 Develop a statement that returns semester ID and start date

of all semesters in reverse chronological order of their start date

select SemesterID, StartDate from Semester order by StartDate ASC;

2.2 Develop a statement that lists each different family name (on the Person table)

sorted according to the length of the family name with the longest family names first.

If different family names have the same length, they must be listed alphabetically.

select distinct FamilyName, len(FamilyName) as [Name Length]

from Person order by len(FamilyName) asc, FamilyName;

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2.3 Develop a statement that returns the semester ID of the three shortest semesters

based on the number of days in the semester. Include all semesters that tie for third shortest.

Select top 3 Startdate, EndDate, DATEDIFF(day, StartDate, EndDate) as Diff from Semester order by Diff ASC;

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Exercises for section 3

3.1 Develop a statement that returns the ID and full name of each person

who has a given name starting with 'Gr' and ending with 'n'

Select \* from Person Where GivenName like 'Gr%n' ;

3.2 Develop a statement that returns the full name of every person

who has no letter 'e' in their full name.

Output the names in alphabetical order of the family name.

Select \* from Person Where FullName not like'%e%'

3.3 Develop a statement that returns the ID and Name of the papers

that have an ID not starting with the characters 'IT'

Select \* from Paper Where PaperID not like 'IT%';

3.4 Develop a statement that returns the full name of every person

who has a given name with at least 5 characters

and a family name beginning with a letter in the first half of the alphabet (A to M)

select \* from Person where FamilyName like '[a-m]%' and GivenName like '\_\_\_\_\_%';

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