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Task1.sql - DESKTOP-RM9R44Q\ht (52) - Microsoft SQL Server Management Studio
File Edit View Query Project Tools Window Help
AdventureWorks2012
Task1.sql - DESKTOP-RM9R44Q\ht (52) Day5_Task2.sql...M9R44Q\ht (54)

-- use ITI;

-- 1.Retrieve number of students who have a value in their age.
select count(St_Id)
from Student
where St_Age is not null

-- 2. Get all instructors Names without repetition
select distinct Ins_Name
from Instructor

-- 3. Display student with the following Format (use isNull function)
-- Std_id , Student_full name , department name
select St_Id as [Student ID ], (St_Fname + ' ' + isNull(St_Lname , '')) as [Student Full Name] , Dept_Name as [Department name]
from Student S , Department D
where D.Dept_Id = S.Dept_Id

-- 4. Display instructor Name and Department Name
-- Note: display all the instructors if they are attached to a department or not
select isNull(Ins_Name , '') as [Instructor Name] , isNull(Dept_Name , '') as [Department name]
from Instructor Ins left join Department D
on D.Dept_Id = Ins.Dept_Id
```

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-- 4. Display instructor Name and Department Name
-- Note: display all the instructors if they are attached to a department or not
select isNull(Ins_Name , '') as [Instructor Name] , isNull(Dept_Name , '') as [Department name]
from Instructor Ins left join Department D
on D.Dept_Id = Ins.Dept_Id

-- 5. Display student full name and the name of the course he is taking For only courses which have a grade
select CONCAT(St_Fname , ' ' , St_Lname ) as [FullName] , Crs_Name
from Student S , Course C , Stud_Course SC
where (C.Crs_Id = SC.Crs_Id) and (S.St_Id = SC.St_Id ) and (SC.Grade is not null);

-- 6. Display number of courses for each topic name
select count(Crs_Id) , T.Top_Name
from Course C , Topic T
where T.Top_Id = C.Top_Id
group by T.Top_Name
```

The screenshot shows the Microsoft SQL Server Management Studio interface. The main window displays a SQL script with four queries labeled 7 through 10. The status bar at the bottom indicates the current position is at line 12, column 16, on the 'INS' table.

```
-- 7. Display max and min salary for instructors
select max(isNull(Salary , 0)) as [Max Salary], min(isNull(Salary , 0)) as [Min Salary]
from Instructor;

-- 8. Display instructors who have salaries less than the average salary of all instructors.
select Ins_Name
from Instructor
where Salary < (select AVG(isNull(Salary , 0)) from Instructor);

-- 9. Display the Department name that contains the instructor who receives the minimum salary.
select Dept_Name
from Department
where Dept_Id in (select Top(1) s.Dept_Id from Instructor s order by(Salary) asc );

-- 10. Select max two salaries in instructor table.
select Top(2) isNull(Salary,0) as [Max Salary]
from Instructor
order by(Salary) desc;
```

145 %
Connected. (1/1)
DESKTOP-RM9R44Q (14.0 RTM) DESKTOP-RM9R44Q\ht (52) AdventureWorks2012 00:00:00 0 rows
Ready Ln 12 Col 16 Ch 16 INS

The screenshot shows the Microsoft SQL Server Management Studio interface. The main window displays a SQL script with four queries labeled 11 through 14. The status bar at the bottom indicates the current position is at line 12, column 16, on the 'INS' table.

```
-- 11 Select instructor name and his salary but if there is no salary display instructor bonus keyword. "use coalesce Function"
select Ins_Name , coalesce(convert(char , Salary), 'instructor Bonus')
from Instructor

-- 12. Select Average Salary for instructors
select avg(isNull(Salary ,0)) as [Average Salary]
from Instructor

-- 13. Select Student first name and the data of his supervisor
select S.St_Fname , sup.*
from Student S , Student Sup
where S.St_super = Sup.St_Id

-- 14. Write a query to select the highest two salaries in Each Department for instructors who have salaries.
-- "using one of Ranking Functions"
select * from (
select Salary ,Dept_Id ,ROW_NUMBER() over(partition by(Dept_Id) order by(Salary) desc ) as Rw
from Instructor
) as newTable
where Rw <3
```

145 %
Connected. (1/1)
DESKTOP-RM9R44Q (14.0 RTM) DESKTOP-RM9R44Q\ht (52) AdventureWorks2012 00:00:00 0 rows
Ready Ln 12 Col 16 Ch 16 INS

