Adv SQLServer Lab

Notes:

Restore ITI and adventureworks2012 DBs to Server

Part-1: Use ITI DB

- 1. Retrieve number of students who have a value in their age.
- 2. Get all instructors Names without repetition
- 3. Display student with the following Format (use is Null function)

Student ID	Student Full Name	Department name

- 4. Display instructor Name and Department Name

 Note: display all the instructors if they are attached to a department or not
- 5. Display student full name and the name of the course he is taking For only courses which have a grade
- 6. Display number of courses for each topic name
- 7. Display max and min salary for instructors
- 8. Display instructors who have salaries less than the average salary of all instructors.
- 9. Display the Department name that contains the instructor who receives the minimum salary.
- 10. Select max two salaries in instructor table.
- 11. Select instructor name and his salary but if there is no salary display instructor bonus keyword. "use coalesce Function"
- 12. Select Average Salary for instructors
- 13. Select Student first name and the data of his supervisor
- 14. Write a query to select the highest two salaries in Each Department for instructors who have salaries. "using one of Ranking Functions"
- 15. Write a query to select a random student from each department. "using one of Ranking Functions"

Part-2: Use AdventureWorks DB

- Display the SalesOrderID, ShipDate of the SalesOrderHeader table (Sales schema) to show SalesOrders that occurred within the period '7/28/2002' and '7/29/2014'
- 2. Display only Products(Production schema) with a StandardCost below \$110.00 (show ProductID, Name only)
- 3. Display ProductID, Name if its weight is unknown
- 4. Display all Products with a Silver, Black, or Red Color
- 5. Display any Product with a Name starting with the letter B
- 6. Run the following Query

UPDATE Production.ProductDescription

SET Description = 'Chromoly steel_High of defects'

WHERE ProductDescriptionID = 3

Then write a query that displays any Product description with underscore value in its description.

- 7. Calculate sum of TotalDue for each OrderDate in Sales.SalesOrderHeader table for the period between '7/1/2001' and '7/31/2014'
- 8. Display the Employees HireDate (note no repeated values are allowed)
- 9. Calculate the average of the unique ListPrices in the Product table
- 10.Display the Product Name and its ListPrice within the values of 100 and 120 the list should has the following format "The [product name] is only! [List price]" (the list will be sorted according to its ListPrice value)

a) Transfer the rowguid ,Name, SalesPersonID, Demographics from Sales.Store table in a newly created table named [store_Archive]

Note: Check your database to see the new table and how many rows in it?

- b) Try the previous query but without transferring the data?
- 12. Using union statement, retrieve the today's date in different styles using convert or format funtion.