**Part 01**

**Restore adventureworks2012 Database Then :**

1. Display the SalesOrderID, ShipDate of the SalesOrderHearder table (Sales schema) to designate 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
7. 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.

1. Display the Employees HireDate (note no repeated values are allowed)
2. Display the Product Name and its ListPrice within the values of 100 and 120 the list should have the following format "The [product name] is only! [List price]" (the list will be sorted according to its ListPrice value)

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**Part 02 (Functions)**

**Use ITI DB:**

1. Create a scalar function that takes a date and returns the Month name of that date.
2. Create a multi-statements table-valued function that takes 2 integers and returns the values between them.
3. Create a table-valued function that takes Student No and returns Department Name with Student full name.
4. Create a scalar function that takes Student ID and returns a message to user
   1. If first name and Last name are null then display 'First name & last name are null'
   2. If First name is null then display 'first name is null'
   3. If Last name is null then display 'last name is null'
   4. Else display 'First name & last name are not null'
5. Create a function that takes an integer which represents the format of the Manager hiring date and displays department name, Manager Name and hiring date with this format.
6. Create multi-statement table-valued function that takes a string
   1. If string='first name' returns student first name
   2. If string='last name' returns student last name
   3. If string='full name' returns Full Name from student table

Note: Use “ISNULL” function

1. Create function that takes project number and display all employees in this project (Use MyCompany DB)

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**Part 03 (Views)**

**Use ITI DB:**

1. Create a view that displays the student's full name, course name if the student has a grade more than 50.
2. Create an Encrypted view that displays manager names and the topics they teach.
3. Create a view that will display Instructor Name, Department Name for the ‘SD’ or ‘Java’ Department “use Schema binding” and describe what is the meaning of Schema Binding
4. Create a view “V1” that displays student data for students who live in Alex or Cairo.

Note: Prevent the users to run the following query

Update V1 set st\_address=’tanta’

Where st\_address=’alex’;

1. Create a view that will display the project name and the number of employees working on it. (Use Company DB)

**use CompanySD32\_DB:**

1. Create a view named “v\_clerk” that will display employee Number ,project Number, the date of hiring of all the jobs of the type 'Clerk'.
2. Create view named “v\_without\_budget” that will display all the projects data without budget
3. Create view named “v\_count “ that will display the project name and the Number of jobs in it
4. Create view named ” v\_project\_p2” that will display the emp# s for the project# ‘p2’ . (use the previously created view “v\_clerk”)
5. modify the view named “v\_without\_budget” to display all DATA in project p1 and p2.
6. Delete the views “v\_ clerk” and “v\_count”
7. Create view that will display the emp# and emp last name who works on deptNumber is ‘d2’
8. Display the employee lastname that contains letter “J” (Use the previous view created in Q#7)
9. Create view named “v\_dept” that will display the department# and department name
10. using the previous view try enter new department data where dept# is ’d4’ and dept name is ‘Development’
11. Create view name “v\_2006\_check” that will display employee Number, the project Number where he works and the date of joining the project which must be from the first of January and the last of December 2006.this view will be used to insert data so make sure that the coming new data must match the condition