

IST722—Data Warehouse

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Assignment 01: Data Profiling

Profile the following table in the Northwind Traders database. The first two have been done for you in the previous part.

Table	Type	Row Count	PK(s) Used	One Row Is
Employees	Master Data	9	EmployeeID	An employee
EmployeeTerritories	Business Process	49	EmployeeID, TerritoryID	An employee assigned to a territory.
Customers	Master Data	91	CustomerID	A customer
Suppliers	Master Data	29	SupplierID	A supplier who supplies the product
Products	Master Data	77	ProductID	A product
Shipments (of Orders)	Business Process	830	ShipmentID, OrderID	A product shipped by the shipper to the customer.
Details (of an Order)	Business Process	2155	OrderID, ProductID	Detail of an order.

Write SQL queries to answer the following questions that might be associated with functional business requirements in a data warehouse. For each of the following provide a screenshot of the SQL query and its output, making sure your name or NetID appears in the screenshot.

1. List the customer contact names and titles sorted by company name.

SQLQuery5.sql - is...nd (AD\bhshah (56))* SQLQuery4.sql - is...nd (AD\bhshah (58))* SQLQuery1.sql - is...nd (AD\bhshah (60))*

```
SELECT ContactName, ContactTitle
FROM Customers
ORDER BY CompanyName;
```

100 %

Results Messages

	ContactName	ContactTitle
78	Liz Nixon	Marketing Manager
79	Liu Wong	Marketing Assistant
80	Karin Josephs	Marketing Manager
81	Miguel Angel Pa...	Owner
82	Anabela Doming...	Sales Representative
83	Helvetius Nagy	Sales Associate
84	Palle Ibsen	Sales Manager
85	Mary Saveley	Sales Agent
86	Paul Henriot	Accounting Manager
87	Pirkko Koskitalo	Accounting Manager
88	Paula Parente	Sales Manager
89	Karl Jablonski	Owner
90	Matti Karttunen	Owner/Marketing A...
91	Zbyszek Piestrze...	Owner

Query executed successfully. ist-cs-dw1.ad.syr.edu (12.0... AD\bhshah (60) Northwind 00:00:00 91 rows

2. Factoring in discounts, what is total amount of product sold?

SQLQuery4.sql - is...nd (AD\bhshah (58))* SQLQuery1.sql - is...nd (AD\bhshah (60))*

```
SELECT SUM(UnitPrice * Quantity * (1 - Discount/100)) AS TotalAmount
FROM [Order Details];
```

100 %

Results Messages

	TotalAmount
1	1353571.93388844

Query executed successfully. ist-cs-dw1.ad.syr.edu (12.0... AD\bhshah (58) Northwind 00:00:00 1 rows

3. Provide a list of product category names with counts of products in each category.

The screenshot shows a SQL Server Enterprise Manager window with three tabs: SQLQuery5.sql, SQLQuery4.sql, and SQLQuery1.sql. The active tab, SQLQuery5.sql, contains the following SQL query:

```
SELECT CategoryName, COUNT(*) AS ProductCount
FROM Categories
JOIN Products ON Categories.CategoryID = Products.CategoryID
GROUP BY CategoryName;
```

Below the query editor, the 'Results' pane displays the output of the query as a table with 8 rows. The status bar at the bottom indicates 'Query executed successfully.' and '8 rows'.

	CategoryName	ProductCount
1	Beverages	12
2	Condiments	12
3	Confections	13
4	Dairy Products	10
5	Grains/Cereals	7
6	Meat/Poultry	6
7	Produce	5
8	Seafood	12

4. Select a specific customer, and display that customer's orders with total amount of product sold for each order.

The screenshot shows a SQL Server Enterprise Manager window with three tabs: SQLQuery6.sql, SQLQuery5.sql, and SQLQuery4.sql. The active tab, SQLQuery6.sql, contains the following SQL query:

```
SELECT Orders.OrderID, Orders.OrderDate, SUM([Order Details].UnitPrice * [Order Details].Quantity) AS TotalAmount
FROM Customers
JOIN Orders ON Customers.CustomerID = Orders.CustomerID
JOIN [Order Details] ON Orders.OrderID = [Order Details].OrderID
WHERE Customers.CustomerID = 'THEBI'
GROUP BY Orders.OrderID, Orders.OrderDate;
```

Below the query editor, the 'Results' pane displays the output of the query as a table with 4 rows. The status bar at the bottom indicates 'Query executed successfully.' and '4 rows'.

	OrderID	OrderDate	TotalAmount
1	10310	1996-09-20 00:00:00.000	336.00
2	10708	1997-10-17 00:00:00.000	180.40
3	10805	1997-12-30 00:00:00.000	2775.00
4	10992	1998-04-01 00:00:00.000	69.60

5. Select a specific employee and each order, how it was shipped (shipvia), the company who shipped it, and the total number of days elapsed from order date to shipped date.

The screenshot shows a SQL Server Enterprise Manager window with three tabs: SQLQuery7.sql, SQLQuery6.sql, and SQLQuery5.sql. The active tab, SQLQuery7.sql, contains the following SQL query:

```
SELECT Orders.OrderID, Orders.ShipVia, Shippers.CompanyName, DATEDIFF(day, Orders.OrderDate, Orders.ShippedDate) AS DaysElased
FROM Employees
JOIN Orders ON Employees.EmployeeID = Orders.EmployeeID
JOIN Shippers ON Orders.ShipVia = Shippers.ShipperID
WHERE Employees.EmployeeID = '7';
```

Below the query editor, the 'Results' tab is selected, displaying a table with the following data:

	OrderID	ShipVia	CompanyName	DaysElased
65	11033	3	Federal Shipping	6
66	11037	1	Speedy Express	6
67	11047	3	Federal Shipping	7
68	11048	3	Federal Shipping	6
69	11051	3	Federal Shipping	NULL
70	11055	2	United Package	7
71	11066	2	United Package	3
72	11074	2	United Package	NULL

At the bottom of the window, a status bar indicates: 'Query executed successfully. | ist-cs-dw1.ad.syr.edu (12.0... | AD\bhshah (59) | Northwind | 00:00:00 | 72 rows'.