

SQL Programming Workshop 1

Using Northwind Database provided by SQL Server, write SQL statements for the following data retrieval operations.

Note: You may need to refer to the schema for the exact field names while framing the queries to the following questions. While framing the question, the words 'code', 'number' or 'ID' may have been synonymously used. For instance 'Customer Number' when used may refer to a field called CustomerID. Similarly, wherever the word 'name' is used, appropriate interpretation may be needed based on the schema – for instance if 'customer name' is required to be printed, you may need to retrieve CompanyName field from the Customers Table; likewise when 'employee name' is required (without any further qualification, you may retrieve the lastname field of Employees table.

- 1)
 - a. List all details of all Shippers that the company is dealing with.
 - b. List all details of Shippers with the output presented in ascending order of shipper names.
- 2)
 - a. List all employees - you need to display only the details of their First Name, Last Name, Title, Date of birth and their city of residence.
 - b. Based on the designations (Titles) available in the employees table, can you extract the designation list?
- 3) Retrieve details of all customers that are located in the cities of London or Madrid.
- 4) List all customers (Customer number and names) who are located in UK. The list should be produced in alphabetical order of customer names.
- 5) List all Orders (Order number and date) of the orders made by the Customer "Maison Dewey" (column: company name). Note: Maison Dewey is the name of the customer.
- 6) List Company Name and the number of orders made by them in the past.
- 7)
 - a. Retrieve the number of orders made, IDs and company names of all customers that have made more than 10 orders. The retrieved list should be display in the descending order of 'number of orders made'.
 - b. Retrieve the number of orders made, IDs and company names for the customer with customer id 'BONAP'.
 - c. Retrieve the number of orders made, IDs and company names of all customers that have more orders than customer with customer id 'BONAP'.

- 8) Retrieve the five highest ranking discounted product. "Discounted Product" indicates products with the total largest discount (in dollars) given to customers.
- 9) Retrieve a list of Northwind's Customers (names) who are located in cities where there are no suppliers.

To understand the answers to the following questions a sample data is provided and a sample output is provided for each question. This is only a rough sample - the northwind database should be used for framing SQL queries to obtain the answers.

Customer Table:

CustomerID	Name	Phone
C001	ABC	11223
C002	PQR	34232
C003	XYZ	78223
C004	RST	73874

Order Table:

OrderID	CustomerID	OrderDate
100	C001	06 May 97
101	C003	07 July 97
102	C001	09 July 97
103	C003	04 Sep 97
104	C004	12 Oct 97
105	C001	30 Dec 97
106	C001	05 Jan 98

Order Details Table:

OrderID	ProductID	UnitPrice	Quantity
100	P1	5.80	1200
100	P2	2.50	5000
100	P4	3.25	3000
100	P7	1.25	2000
101	P2	2.75	230
101	P6	3.40	2200
101	P2	2.50	500
102	P3	1.80	2000
102	P8	7.00	500
102	P9	4.00	750
103	P1	5.80	1000
103	P4	3.25	2030

Not part of table -These are provided for reference only	
Amount	CustID
6960	C001
12500	C001
9750	C001
2500	C001
632.5	C003
7480	C003
1250	C003
3600	C001
3500	C001
3000	C001
5800	C003
6597.5	C003

104	P2	2.50	200
104	P4	3.25	600
104	P5	10.00	250
105	P4	3.25	3200
105	P5	10.50	490
105	P6	3.40	1500
106	P3	1.80	2000
106	P8	7.00	1000

500	C004
1950	C004
2500	C004
10400	C001
5145	C001
5100	C001
3600	C001
7000	C001

- 10) List all the orders (order number and amount) that exceed \$10000 value per order.
Amount means Quantity*Price.

For the above data: 101 (9362.50) and 104 (\$4950) do not qualify.

Appendix

