

Student Name .....

Student ID .....

# Database Design

## BCDE103

### Practical Assessment – SQL Test

**Semester 1 2021**

**Date:** In Class Test

**Time:** 10.10am – 12.00pm

**Time Allowed: 1 hour 50 minutes**

Students are encouraged to read through the exam in the first ten (10) minutes and ask any questions.

**Instructions:**

Answer **ALL** questions.

This is an **OPEN** resources test.

Students are allowed to use their **OWN** resources.

All required files located on the BCDE103 Moodle site under the “SQL Practical Tests” tab.

**TOTAL MARKS:** 50

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**This test is worth 25% of the total marks for this course**

This assignment has eight (8) pages including the cover sheet and outcomes.

1. **Restore** and **select** the **SQLTest.bak** database.  
(Marks 1)
2. Give the name, address, city, and region of employees.  
(Marks 1)
3. Give the name, address, city, and region of employees living in USA.  
(Marks 2)
4. Give the name, address, city, and region of employees that have placed orders to be delivered in Belgium.  
(Marks 2)
5. Display the First Name, Last Name, City and Hire Date of Employees whose Last Name starts with 'S' and First Name starts with 'M'.  
(Marks 2)
6. Give the employee name and the customer name for orders that are sent by the company 'Speedy Express' to customers who live in **Bruxelles**.  
(Marks 3)
7. Give the title and name of employees who have sold at least one of the products 'Gravad Lax' or 'Mishi Kobe Niku'. Names should not repeat if they have sold both or one item twice.  
(Marks 2)
8. Give the name of employees and the city where they live for employees who have sold to customers in the same city.  
(Marks 3)
9. Write a query to get the name, address, city, and region of employees older than 60 years.  
(Marks 3)
10. Give the name of all employees who sold 'Chai'.  
(Marks 3)
11. Give the identifier and the name of the companies that provide more than 3 products.  
(Marks 3)
12. Write a query that lists the number of customers in each country. Only include countries with more than 5 customers and order them by descending order of Number of Companies.  
(Marks 3)

13. Give the name of customers who have MADE MORE THAN 10 purchases OF any product. (Marks 3)
14. Give the ProductName, CategoryID, UnitPrice, UnitsInStock and Total Value of all the products. (Marks 4)
15. For ALL Condiments, display the Category Name, the Product Name, and the Company Name of the supplier. (Marks 4)
16. Make a complete list of customers along with the number of orders they have placed. (My query yielded 89 records.) (Marks 3)
17. Write a query to get Product list (product name, units on order, and units in stock) where quantity of stock is less than the quantity on order. (Marks 4)
18. Give the average price of products by EACH category. (Marks 2)
19. Display the First Name and Last Name (concatenated) and City of all Employees who live in cities that start with the letter 'S' or 'T'. (Marks 2)

## Desired Outputs

Q2

	FirstName	LastName	Address	City	Region
1	Nancy	Davolio	507 - 20th Ave. E. Apt. 2A	Seattle	WA
2	Andrew	Fuller	908 W. Capital Way	Tacoma	WA
3	Janet	Leverling	722 Moss Bay Blvd.	Kirkland	WA
4	Margaret	Peacock	4110 Old Redmond Rd.	Redmond	WA
5	Steven	Buchanan	14 Garrett Hill	London	NULL
6	Michael	Suyama	Coventry House Miner Rd.	London	NULL
7	Robert	King	Edgeham Hollow Winchester Way	London	NULL
8	Laura	Callahan	4726 - 11th Ave. N.E.	Seattle	WA
9	Anne	Dodsworth	7 Houndstooth Rd.	London	NULL

Q3

	FirstName	LastName	Address	City	Region	Country
1	Nancy	Davolio	507 - 20th Ave. E. Apt. 2A	Seattle	WA	USA
2	Andrew	Fuller	908 W. Capital Way	Tacoma	WA	USA
3	Janet	Leverling	722 Moss Bay Blvd.	Kirkland	WA	USA
4	Margaret	Peacock	4110 Old Redmond Rd.	Redmond	WA	USA
5	Laura	Callahan	4726 - 11th Ave. N.E.	Seattle	WA	USA

Q4

	FirstName	LastName	Address	City	Region	ShipCountry
1	Margaret	Peacock	4110 Old Redmond Rd.	Redmond	WA	Belgium
2	Margaret	Peacock	4110 Old Redmond Rd.	Redmond	WA	Belgium
3	Robert	King	Edgeham Hollow Winchester Way	London	NULL	Belgium
4	Steven	Buchanan	14 Garrett Hill	London	NULL	Belgium
5	Anne	Dodsworth	7 Houndstooth Rd.	London	NULL	Belgium
6	Steven	Buchanan	14 Garrett Hill	London	NULL	Belgium
7	Steven	Buchanan	14 Garrett Hill	London	NULL	Belgium
8	Margaret	Peacock	4110 Old Redmond Rd.	Redmond	WA	Belgium
9	Margaret	Peacock	4110 Old Redmond Rd.	Redmond	WA	Belgium
10	Steven	Buchanan	14 Garrett Hill	London	NULL	Belgium
11	Andrew	Fuller	908 W. Capital Way	Tacoma	WA	Belgium

Query executed successfully. S157-63207 (14.0 RTM) ARA\sarkara (58) NORTHWND 00:00:00 19 rows

Q5

This is pretty straight forward.

Q6

	FirstName	LastName	CompanyName	CompanyName
1	Margaret	Peacock	Maison Dewey	Speedy Express
2	Janet	Leverling	Maison Dewey	Speedy Express

Q7

	Title	FirstName	LastName
1	Inside Sales Coordinator	Laura	Callahan
2	Sales Representative	Anne	Dodsworth
3	Sales Representative	Janet	Leverling
4	Sales Representative	Margaret	Peacock
5	Sales Representative	Robert	King
6	Vice President, Sales	Andrew	Fuller

Q8

	FirstName	LastName	City
1	Anne	Dodsworth	London
2	Janet	Leverling	Kirkland
3	Laura	Callahan	Seattle
4	Michael	Suyama	London
5	Nancy	Davolio	Seattle
6	Robert	King	London
7	Steven	Buchanan	London

Q9

	FirstName	LastName	Address	City	Region	BIRTHDATE	Age
1	Robert	King	Edgeham Hollow Winchester Way	London	NULL	1960	61
2	Laura	Callahan	4726 - 11th Ave. N.E.	Seattle	WA	1958	63
3	Steven	Buchanan	14 Garrett Hill	London	NULL	1955	66
4	Andrew	Fuller	908 W. Capital Way	Tacoma	WA	1952	69
5	Nancy	Davolio	507 - 20th Ave. E. Apt. 2A	Seattle	WA	1948	73
6	Margaret	Peacock	4110 Old Redmond Rd.	Redmond	WA	1937	84

Q10

	FirstName	LastName	ProductName
1	Andrew	Fuller	Chai
2	Anne	Dodsworth	Chai
3	Janet	Leverling	Chai
4	Laura	Callahan	Chai
5	Margaret	Peacock	Chai
6	Michael	Suyama	Chai
7	Nancy	Davolio	Chai
8	Robert	King	Chai
9	Steven	Buchanan	Chai

Q11

	SupplierID	CompanyName	No. of Products
1	2	New Orleans Cajun Delights	4
2	7	Pavlova, Ltd.	5
3	8	Specialty Biscuits, Ltd.	4
4	12	Plutzer Lebensmittelgroßmärkte AG	5

Q12

	Customer Num	Country
1	13	USA
2	11	France
3	11	Germany
4	9	Brazil
5	7	UK

Q13 (returns 28 rows)

	CompanyName	# OF PURCHASES
1	Around the Horn	13
2	Berglunds snabbköp	18
3	Blondesddsl père et fils	11
4	Bon app'	17
5	Bottom-Dollar Markets	14
6	Ernst Handel	30
7	Folk och få HB	19
8	Frankenversand	15
9	Great Lakes Food Market	11
10	Hanari Carnes	14
11	HILARION-Abastos	18
12	Hungry Owl All-Night Grocers	19

Q14 (77 rows in total)

	ProductName	CategoryID	UnitPrice	UnitsInStock	Total Value
1	Chai	1	18.00	39	702.00
2	Chang	1	19.00	17	323.00
3	Chateau verte	1	18.00	69	1242.00
4	Côte de Blaye	1	263.50	17	4479.50
5	Guaraná Fantástica	1	4.50	20	90.00
6	Ispoh Coffee	1	46.00	17	782.00
7	Lakkalikööri	1	18.00	57	1026.00
8	Laughing Lumberjack Lager	1	14.00	52	728.00
9	Outback Lager	1	15.00	15	225.00
10	Rhinbräu Klosterbier	1	7.75	125	968.75

Query executed successfully.

S157-63207 (14.0 RTM) | ARA\sarkara (58) | NORTHWND | 00:00:00 | 77 rows

## Q15

	CategoryName	ProductName	CompanyName
1	Condiments	Aniseed Syrup	Exotic Liquids
2	Condiments	Chef Anton's Cajun Seasoning	New Orleans Cajun Delights
3	Condiments	Chef Anton's Gumbo Mix	New Orleans Cajun Delights
4	Condiments	Grandma's Boysenberry Spread	Grandma Kelly's Homestead
5	Condiments	Northwoods Cranberry Sauce	Grandma Kelly's Homestead
6	Condiments	Genen Shouyu	Mayumi's
7	Condiments	Gula Malacca	Leka Trading
8	Condiments	Sirop d'érable	Forêts d'érables
9	Condiments	Vegie-spread	Pavlova, Ltd.
10	Condiments	Louisiana Fiery Hot Pepper Sauce	New Orleans Cajun Delights
11	Condiments	Louisiana Hot Spiced Okra	New Orleans Cajun Delights
12	Condiments	Original Frankfurter grüne Soße	Plutzer Lebensmittelgroßmärkte AG

## Q16 (My query yielded 89 records)

	CompanyName	# of Orders Placed
1	Alfreds Futterkiste	6
2	Ana Trujillo Emparedados y helados	4
3	Antonio Moreno Taqueria	7
4	Around the Horn	13
5	Berglunds snabbköp	18
6	Blauer See Delikatessen	7
7	Blondesddsl père et fils	11
8	Bólido Comidas preparadas	3
9	Bon app'	17
10	Bottom-Dollar Markets	14



## Q17

Results		Messages	
	ProductName	UnitsOnOrder	UnitsInStock
1	Chang	40	17
2	Aniseed Syrup	70	13
3	Queso Cabrales	30	22
4	Sir Rodney's Scones	40	3
5	Gorgonzola Telino	70	0
6	Mascarpone Fabioli	40	9
7	Gravad lax	50	11
8	Rogede sild	70	5
9	Chocolade	70	15
10	Maxilaku	60	10
11	Wimmers gute Semmelknödel	80	22
12	Louisiana Hot Spiced Okra	100	4
13	Scottish Longbreads	10	6
14	Longlife Tofu	20	4

## Q18

	CategoryName	AVERAGE PRICE
1	Beverages	37.9791
2	Condiments	23.0625
3	Confections	25.16
4	Dairy Products	28.73
5	Grains/Cereals	20.25
6	Meat/Poultry	54.0066
7	Produce	32.37
8	Seafood	20.6825

## Q19

	EmployeeName	City
1	Nancy Davolio	Seattle
2	Andrew Fuller	Tacoma
3	Laura Callahan	Seattle