50. Practice Queries for North-Wind Database

-By VRUSHABH CHAMATE

1) Create a report that shows the CategoryName and Description from the categories table sorted by CategoryName.

ANS :- select category_name,description

from categories

order by 1

2) Create a report that shows the ContactName, CompanyName, ContactTitle and Phone number from the customers table sorted by Phone.

ANS :- select contact_name,company_name,contact_title,phone

from customers

order by phone

3) Create a report that shows the capitalized FirstName and capitalized LastName renamed as FirstName and Lastname respectively and HireDate from the employees table sorted from the newest to the oldest employee.

ANS :- select upper(first_name) as First_name, upper (last_name) as Last_Name,hire_date

from employees

order by hire_date desc

4) Create a report that shows the top 10 OrderID, OrderDate, ShippedDate, CustomerID, Freight from the orders table sorted by Freight in descending order.

ANS :- select order_id,order_date,shipped_date,customer_id,freight

from orders

order by 5 desc

limit 10

5) Create a report that shows all the CustomerID in lowercase letter and renamed as ID from the customers table.

ANS :- select lower(customer_id) as Id

from customers

6) Create a report that shows the CompanyName, Fax, Phone, Country, HomePage from the suppliers table sorted by the Country in descending order then by CompanyName in ascending order.

ANS :- select company_name,fax,phone,country,homepage

from suppliers

order by 4 desc ,1 asc

7) Create a report that shows CompanyName, ContactName of all customers from ‘Buenos Aires' only.

ANS :- select company_name,contact_name

from customers

where city = 'Buenos Aires'

8) Create a report showing ProductName, UnitPrice, QuantityPerUnit of products that are out of stock.

ANS :- select Product_Name, Unit_Price, Quantity_Per_Unit

from products

where units_in_stock = 0

9) Create a report showing all the ContactName, Address, City of all customers not from Germany, Mexico, Spain.

ANS :- select contact_name,address,city,country

from customers

where country not in ('Germany','Mexico','Spain')

10) Create a report showing OrderDate, ShippedDate, CustomerID, Freight of all orders placed on 21 May 1996.

ANS :- select order_date,shipped_date,customer_id,freight

from orders

where order_date ='1996-05-21'

11) Create a report showing FirstName, LastName, Country from the employees not from United States.

ANS :- a) select first_name,last_name,country

from employees

where country not in ('USA')

b) select first_name,last_name,country

from employees

where country <> ('USA')

c) select first_name,last_name,country

from employees

where country != ('USA')

12) Create a report that shows the EmployeeID, OrderID, CustomerID, RequiredDate, ShippedDate from all orders shipped later than the required date.

ANS :- SELECT employee_id,order_id,customer_id,required_date,shipped_date

from orders

where shipped_date > required_date

13) Create a report that shows the City, CompanyName, ContactName of customers from cities starting with A or B.

ANS :- select city,company_name,contact_name

from customers

where city like 'A%' or

city like 'B%'

14) Create a report showing all the even numbers of OrderID from the orders table.

ANS :- a) select order_id

from orders

where order_id % 2 = 0

b) select order_id

from orders where mod(order_id,2) = 0

15) Create a report that shows all the orders where the freight cost more than $500.

ANS :- select *

from orders

where freight > 500

16) Create a report that shows the ProductName, UnitsInStock, UnitsOnOrder, ReorderLevel of all products that are up for reorder.

ANS :- select product_name,units_in_stock,units_on_order,reorder_level

from products

where reorder_level != 0

17) Create a report that shows the CompanyName, ContactName number of all customer that have no fax number.

ANS :- select company_name,contact_name

from customers

where fax is null

18) Create a report that shows the FirstName, LastName of all employees that do not report to anybody.

ANS :- select first_name,last_name

from employees

where reports_to is null

19) Create a report showing all the odd numbers of OrderID from the orders table.

ANS :- select order_id

from orders

where order_id % 2 = 1

20) Create a report that shows the CompanyName, ContactName, Fax of all customers that do not have Fax number and sorted by ContactName.

ANS :- select company_name,contact_name,fax

from customers

where fax is null

order by 2 asc

21) Create a report that shows the City, CompanyName, ContactName of customers from cities that has letter L in the name sorted by ContactName.

ANS :- select city,company_name,contact_name

```
from customers
where city like '%L%'
order by 3
```

22) Create a report that shows the FirstName, LastName, BirthDate of employees born in the 1950s.

ANS :-
```
select first_name,last_name,birth_date
from (select first_name,last_name,extract(year from birth_date) as birth_date
from employees) data1
where birth_date = 1950
```

23) Create a report that shows the FirstName, LastName, the year of Birthdate as birth year from the employees table.

ANS :-
```
select first_name,last_name,extract(year from birth_date) as birth_year
from employees
```

24) Create a report showing OrderID, total number of Order ID as NumberofOrders from the orderdetails table grouped by OrderID and sorted by NumberofOrders in descending order. HINT: you will need to use a Groupby statement.

ANS :-
```
select order_id,count(order_id)as numbers_of_orders
from order_details
group by 1
order by 2 desc
```

25) Create a report that shows the SupplierID, ProductName, CompanyName from all product Supplied by Exotic Liquids, Specialty Biscuits, Ltd., Escargots Nouveaux sorted by the supplier Id.

ANS :-
```
select p.supplier_id,p.product_name,s.company_name
from products as p
join suppliers as s
on p.supplier_id = s.supplier_id
where company_name in ('Exotic Liquids','Specialty Biscuits,ltd','Escargots Nouveaux')
```

order by 1

26) Create a report that shows the ShipPostalCode, OrderID, OrderDate, RequiredDate, ShippedDate, ShipAddress of all orders with ShipPostalCode beginning with "98124".

ANS :- select ship_postal_code,order_id,order_date,required_date,shipped_date,ship_address

from orders

where ship_postal_code = 98124

27) Create a report that shows the ContactName, ContactTitle, CompanyName of customers that the has no "Sales" in their ContactTitle.

ANS :- select contact_name,contact_title,company_name

from customers

where contact_title not like '%Sales%'

28) Create a report that shows the LastName, FirstName, City of employees in cities other "Seattle".

ANS :- select last_name,first_name,city

from employees

where city <> 'Seattle'

29) Create a report that shows the CompanyName, ContactTitle, City, Country of all customers in any city in Mexico or other cities in Spain other than Madrid.

ANS :- select company_name,contact_title,city,country

from customers

where country in ('Mexico','Spain') and

city <> 'Madrid'

30) Create a select statement that outputs the following:

ANS :- select (first_name||' '||last_name||' '||'can be reached at x'||extension) as contact_info

from employees

order by employee_id asc

	Contactinfo
▶	Nancy Davolio can be reached at x5467
	Andrew Fuller can be reached at x3457
	Janet Leverling can be reached at x3355
	Margaret Peacock can be reached at x5176
	Steven Buchanan can be reached at x3453
	Michael Suyama can be reached at x428
	Robert King can be reached at x465
	Laura Callahan can be reached at x2344
	Anne Dodsworth can be reached at x452

31) Create a report that shows the ContactName of all customers that do not have letter A as the second alphabet in their Contactname.

ANS :- select contact_name

from customers

where contact_name not like '_a%'

32) Create a report that shows the average UnitPrice rounded to the next whole number, total price of UnitsInStock and maximum number of orders from the products table. All saved as AveragePrice, TotalStock and MaxOrder respectively.

ANS :- select round(avg(unit_price))as average_price,sum(units_in_stock)as total_stock,

max(units_on_order)as max_order

from products

33) Create a report that shows the SupplierID, CompanyName, CategoryName, ProductName and UnitPrice from the products, suppliers and categories table.

ANS :- select p.supplier_id,s.company_name,c.category_name,p.product_name,p.unit_price

from products as p

join suppliers as s

on p.supplier_id = s.supplier_id

join categories c

on c.category_id = p.category_id

34) Create a report that shows the CustomerID, sum of Freight, from the orders table with sum of freight greater $200, grouped by CustomerID**. HINT: you will need to use a Groupby and a Having statement**.

ANS :- select customer_id,sum(freight)

from orders

group by 1

having sum(freight) > 200

35) Create a report that shows the OrderID ContactName, UnitPrice, Quantity, Discount from the orders details, orders and customers table with discount given on every purchase.

ANS :- select od.order_id,c.contact_name,od.unit_price,od.quantity,od.discount

from order_details od

join orders o

on od.order_id = o.order_id

join customers c

on o.customer_id = c.customer_id

where od.discount != 0

36) Create a report that shows the EmployeeID, the LastName and FirstName as employee, and the LastName and FirstName of who they report to as manager from the employees table sorted by Employee ID. **HINT: This is a SelfJoin**.

ANS :- select a.employee_id,

concat(a.first_name,' ',a.last_name) as employees,

concat(b.first_name,' ',b.last_name) as manager_report_to

from employees a

left join employees b

on a.employee_id = b.reports_to

order by 1

37) Create a report that shows the average, minimum and maximum UnitPrice of all products as AveragePrice, MinimumPrice and MaximumPrice respectively.

ANS :- select avg(unit_price)as avg_price,

min(unit_price)as min_price,

max(unit_price)as max_price

from products

38) Create a view named CustomerInfo that shows the CustomerID, CompanyName, ContactName, ContactTitle, Address, City, Country, Phone, OrderDate, RequiredDate, ShippedDate from the customers and orders table. **HINT: Create a View**.

ANS :-create view customer_info as

```
select c.customer_id,c.company_name,c.contact_name,c.contact_title,
c.address,c.city,c.country,c.phone,o.order_date,
o.required_date,o.shipped_date
from customers c
join orders o
on c.customer_id = o.customer_id
```

39) Change the name of the view you created from customerinfo to customer details.

ANS :- alter table customer_info

```
rename to customer_details
```

40) Create a view named ProductDetails that shows the ProductID, CompanyName, ProductName, CategoryName, Description, QuantityPerUnit, UnitPrice, UnitsInStock, UnitsOnOrder, ReorderLevel, Discontinued from the supplier, products and categories tables. **HINT: Create a View.**

ANS :- create view product_details as

```
select p.product_id,s.company_name,p.product_name,c.category_name,
c.description,p.quantity_per_unit,p.unit_price,p.units_in_stock,
p.units_on_order,p.reorder_level,p.discontinued
from suppliers s
join products p
on s.supplier_id = p.supplier_id
join categories c
on p.category_id = c.category_id
```

41) Drop the customer details view.

ANS :- a) drop view customer_details

OR

b) drop view if exists customer_details

42) Create a report that fetch the first 5 character of categoryName from the category tables and renamed as ShortInfo.

ANS :- select substring(category_name,1,5) as short_info

from categories

43) Create a copy of the shipper table as shippers_duplicate. Then insert a copy of shippers data into the new table HINT: Create a Table, use the LIKE Statement and INSERT INTO statement.

ANS :- create table shipper_dup(like shippers)

insert into shipper_dup select * from shippers

44) Create a select statement that outputs the following from the shippers_duplicate Table.

ANS :- ALTER TABLE shippers_dup

ADD column Email VARCHAR(50);

UPDATE shippers_dup

SET Email ='speedyexpress@gmail.com'

WHERE ShipperID = '1';

UPDATE shippers_dup

SET Email ='unitedpackage@gmail.com'

WHERE ShipperID = '2';

UPDATE shippers_dup

SET Email ='federalshipping@gmail.com'

WHERE ShipperID = '3'

ShipperID	CompanyName	Phone	Email
1	Speedy Express	(503) 555-9831	speedyexpress@gmail.com
2	United Package	(503) 555-3199	unitedpackage@gmail.com
3	Federal Shipping	(503) 555-9931	federalshipping@gmail.com
NULL	NULL	NULL	NULL

45) Create a report that shows the CompanyName and ProductName from all product in the Seafood category.

ANS :- select s.company_name,p.product_name

from products p

join suppliers s

on p.supplier_id = s.supplier_id

join categories c

on p.category_id = c.category_id

where c.category_name = 'Seafood'

46) Create a report that shows the CategoryID, CompanyName and ProductName from all product in the categoryID 5.

ANS :- select p.category_id,s.company_name,p.product_name

from products p

join suppliers s

on p.supplier_id = s.supplier_id

where p.category_id = '5'

47) Delete the shippers_duplicate table.

ANS :- drop table if exist shipper_dup

48) Create a select statement that ouputs the following from the employees table. NB: The age might differ depending on the year you are attempting this query.

ANS :- select extract(year from current_date)-extract(year from birth_date) as age

from employees

order by employee_id asc

(Note- I used the todays date for calculating age for of todays(current age) age.)

LastName	FirstName	Title	Age
Davolio	Nancy	Sales Representative	72 Years
Fuller	Andrew	Vice President, Sales	68 Years
Leverling	Janet	Sales Representative	57 Years
Peacock	Margaret	Sales Representative	83 Years
Buchanan	Steven	Sales Manager	65 Years
Suyama	Michael	Sales Representative	57 Years
King	Robert	Sales Representative	60 Years
Callahan	Laura	Inside Sales Coordinator	62 Years
Dodsworth	Anne	Sales Representative	54 Years

49) Create a report that the CompanyName and total number of orders by customer renamed as number of orders since Decemeber 31, 1994. Show number of Orders greater than 10.

ANS :- select c.company_name,count(c.customer_id) as number_of_orders

```
from orders o
join customers c
on o.customer_id = c.customer_id
where o.order_date >= '1994-12-31'
group by 1
having count(c.customer_id) > 10
```

50) Create a select statement that ouputs the following from the product table NB: It should return 77rows.

ANS :-
```
select (product_name||' '||'weight/is'||' '||quantity_per_unit||' '||'cost $'||unit_price) as product_info
from products
```

ProductInfo
Chai weighs/is 10 boxes x 20 bags and cost $18
Chang weighs/is 24 - 12 oz bottles and cost $19
Aniseed Syrup weighs/is 12 - 550 ml bottles and cost $10
Chef Anton's Cajun Seasoning weighs/is 48 - 6 oz jars and cost $22
Chef Anton's Gumbo Mix weighs/is 36 boxes and cost $21
Grandma's Boysenberry Spread weighs/is 12 - 8 oz jars and cost $25
Uncle Bob's Organic Dried Pears weighs/is 12 - 1 lb pkgs. and cost $30
Northwoods Cranberry Sauce weighs/is 12 - 12 oz jars and cost $40
Mishi Kobe Niku weighs/is 18 - 500 g pkgs. and cost $97
Ikura weighs/is 12 - 200 ml jars and cost $31
Queso Cabrales weighs/is 1 kg pkg. and cost $21
Queso Manchego La Pastora weighs/is 10 - 500 g pkgs. and cost $38
Konbu weighs/is 2 kg box and cost $6

Congratulations!!!!, you have successfully become proficient in writing and extracting business queries from a data base.