Domain: SQL

Assignment Week : 1

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SQL Queries: Week 1

1. List all customers:

   Query: **SELECT * FROM Sales.Customer;**

2. List of customers where company name ends with N:

   select s.name from sales.customer c join sales.store s on c.storeid = s.businessentityid where s.name like '%n';

3. List of customers who live in Berlin or London:

   select a.city, p.firstname, p.lastname from sales.customer c join person.businessentityaddress b on c.customerid = b.businessentityid join person.address a on b.addressid = a.addressid join person.person p on c.personid = p.businessentityid where a.city in ('berlin', 'london');

4. List of customers who live in Uk Or USA:

   select person.countryregion.name, person.person.firstname, person.person.lastname from sales.customer join person.person on sales.customer.personid = person.person.businessentityid join person.businessentityaddress on sales.customer.customerid = person.businessentityaddress.businessentityid join person.address on person.businessentityaddress.addressid = person.address.addressid join person.stateprovince on person.address.stateprovinceid = person.stateprovince.stateprovinceid join person.countryregion on person.stateprovince.countryregioncode = person.countryregion.countryregioncode where person.countryregion.name in ('united kingdom', 'united states');

   Or

   select person.countryregion.name, person.person.firstname, person.person.lastname from sales.customer join person.person on sales.customer.personid = person.person.businessentityid join person.businessentityaddress on sales.customer.customerid = person.businessentityaddress.businessentityid join person.address on person.businessentityaddress.addressid = person.address.addressid join person.stateprovince on person.address.stateprovinceid = person.stateprovince.stateprovinceid join person.countryregion on person.stateprovince.countryregioncode = person.countryregion.countryregioncode where person.countryregion.name in (USA, USA);

5. **List of all products sorted by name:**

   ```
   select name from production.product order by name;
   ```

6. **List of products starting with 'A':**

   ```
   select name from production.product where name like 'a%';
   ```

7. **List of customers who placed an order:**

   ```
   select distinct p.firstname, p.lastname from sales.customer c join sales.salesorderheader o
   on c.customerid = o.customerid join person.person p on c.personid = p.businessentityid;
   ```

8. **List of customers in London who bought a chai:**

   ```
   select distinct p.firstname, p.lastname from sales.customer c join sales.salesorderheader o
   on c.customerid = o.customerid join sales.salesorderdetail d on o.salesorderid =
   d.salesorderid join production.product pr on d.productid = pr.productid
   join person.businessentityaddress b on c.customerid = b.businessentityid
   join person.address a on b.addressid = a.addressid join person.person p on c.personid =
   p.businessentityid where a.city = 'london' and pr.name = 'road-650 black, 52';
   ```

9. **list of customers who never place an order:**

   ```
   select c.customerid from sales.customer c left join sales.salesorderheader o   on
   c.customerid = o.customerid where o.salesorderid is null;
   ```

10. **list of customers who ordered tofu:**

    ```
    select distinct c.customerid from sales.customer c join sales.salesorderheader o on
    c.customerid = o.customerid join sales.salesorderdetail d on o.salesorderid =
    d.salesorderid join production.product p on d.productid = p.productid
    where p.name = 'tofu';
    ```

11. **details of first order of the system:**

    ```
    select top 1 *from sales.salesorderheader order by orderdate asc;
    ```

12. **find the details of most expensive order date:**

    ```
    select top 1 date, totaldue from sales.salesorderheader order by totaldue desc;
    ```

13. **For each order get the orderid and average quantity of items in that order:**

    ```
    select salesorderid, avg(orderqty) as avg_qty from sales.salesorderdetail group by
    salesorderid;
    ```

14. **For each order get the orderid, minimum quantity and maximum quantity for that order:**

    ```
    select salesorderid, min(orderqty) as min_qty, max(orderqty) as max_qty from
    sales.salesorderdetail group by salesorderid;
    ```

15. **Get list of all manager and total number of employees who report them:**

    ```
    select e.businessentityid as manager_id, count(*) as total_employees from
    humanresources.employee e join humanresources.employee emp on
    emp.organizationnode.GetAncestor(1) = e.organizationnode group by e.businessentityid;
    ```

16. **Get the orderid and the total quantity for each order that has a total quantity of greater than 300:**

    ```
    select salesorderid, sum(orderqty) as quantity from sales.salesorderdetail group by
    salesorderid having sum(orderqty) > 300;
    ```

17. **list of all orders placed on or after 1996/12/31:**

    ```
    select * from sales.salesorderheader where orderdate >= '1996-12-31';
    ```

18. **list of all orders shipped to Canada:**

    ```
    select * from sales.salesorderheader where shiptoaddressid in (select addressid from
    person.address where stateprovinceid in (select stateprovinceid from person.stateprovince
    where countryregioncode = 'CA'));
    ```

19. **list of all orders with order total > 200:**

    ```
    select * from sales.salesorderheader where totaldue > 200;
    ```

20. **List of countries and sales made in each country:**

    ```
    select cr.name as country, sum(soh.totaldue) as total_sales from sales.salesorderheader soh join person.address a on soh.billtoaddressid = a.addressid join person.stateprovince sp on a.stateprovinceid = sp.stateprovinceid join person.countryregion cr on sp.countryregioncode = cr.countryregioncode group by cr.name;
    ```

21. **List of customer contactname and number of orders they placed:**

    ```
    select p.firstname + ' ' + p.lastname as contact_name, count(*) as total_orders from sales.customer c join person.person p on c.personid = p.businessentityid join sales.salesorderheader soh on c.customerid = soh.customerid group by p.firstname, p.lastname;
    ```

22. **list of customer contactnames who have placed more than 3 orders:**

    ```
    select p.firstname + ' ' + p.lastname as contact_name, count(*) as total_orders from sales.customer c join person.person p on c.personid = p.businessentityid join sales.salesorderheader soh on c.customerid = soh.customerid group by p.firstname, p.lastname having count(*) > 3;
    ```

23. **list of discontinued products which were ordered between 1/1/1997 and 1/1/1998:**

    ```
    select distinct p.name from production.product p join sales.salesorderdetail sod on p.productid = sod.productid join sales.salesorderheader soh on sod.salesorderid = soh.salesorderid where p.discontinueddate is not null and soh.orderdate between '1997-01-01' and '1998-01-01';
    ```

24. **list of employee firstname, lastname, supervisor firstname, lastname:**

    ```
    select e1.firstname, e1.lastname, e2.firstname as manager_firstname, e2.lastname as manager_lastname from humanresources.employee emp1 join person.person e1 on emp1.businessentityid = e1.businessentityid join humanresources.employee emp2 on emp1.organizationnode.GetAncestor(1) = emp2.organizationnode join person.person e2 on emp2.businessentityid = e2.businessentityid;
    ```

25. **list of employees id and total sale conducted by employee:**

    ```
    select salespersonid, sum(totaldue) as total_sales from sales.salesorderheader where salespersonid is not null group by salespersonid;
    ```

26. **list of employees whose firstname contains character a:**

    ```
    select * from person.person where firstname like '%a%';
    ```

27. **list of managers who have more than four people reporting to them:**

    ```
    select e.businessentityid as manager_id, count(*) as total_employees from humanresources.employee e join humanresources.employee emp on emp.organizationnode.GetAncestor(1) = e.organizationnode group by e.businessentityid having count(*) > 4;
    ```

28. **list of orders and productnames:**

    ```
    select sod.salesorderid, p.name from sales.salesorderdetail sod join production.product p on sod.productid = p.productid;
    ```

29. **list of orders placed by the best customer:**

    ```
    select top 1 customerid, count(*) as total_orders from sales.salesorderheader group by customerid order by total_orders desc;
    ```

30. **list of orders placed by customers who do not have a fax number:**

    ```
    select soh.salesorderid from sales.salesorderheader soh join sales.customer c on soh.customerid = c.customerid where c.personid not in (select businessentityid from person.personphone);
    ```

31. **list of postal codes where the product tofu was shipped**

    ```
    select distinct a.postalcode from sales.salesorderdetail sod join production.product p on sod.productid = p.productid join sales.salesorderheader soh on sod.salesorderid = soh.salesorderid join person.address a on soh.shiptoaddressid = a.addressid where p.name = 'tofu';
    ```

32. **list of product names that were shipped to France**

```
select distinct p.name from sales.salesorderdetail sod join production.product p   on
sod.productid = p.productid join sales.salesorderheader soh  on sod.salesorderid =
soh.salesorderid join person.address a  on soh.shiptoaddressid = a.addressid

join person.stateprovince sp on a.stateprovinceid = sp.stateprovinceid where
sp.countryregioncode = 'FR';
```

33. **list of productnames and categories for the supplier 'specialty biscuits, ltd’:**

```
select p.name as product_name, pc.name as category from production.product p join
production.productsubcategory ps on p.productsubcategoryid = ps.productsubcategoryid
join production.productcategory pc on ps.productcategoryid = pc.productcategoryid;
```

34. **list of products that were never ordered:**

```
select name from production.product where productid not in (select productid from
sales.salesorderdetail);
```

35. **list of products where units in stock is less than 10 and units on order are 0:**

```
select name from production.productinventory pi join production.product p on
pi.productid = p.productid where pi.quantity < 10 and p.safetystocklevel = 0;
```

36. **list of top 10 countries by sales:**

```
select top 10 cr.name as country, sum(soh.totaldue) as total_sales from
sales.salesorderheader soh join person.address a on soh.billtoaddressid = a.addressid join
person.stateprovince sp on a.stateprovinceid = sp.stateprovinceid join
person.countryregion cr on sp.countryregioncode = cr.countryregioncode group by cr.name
order by total_sales desc;
```

37. **number of orders each employee has taken for customers with customerids between a and ao:**

```
select salespersonid, count(*) as total_orders from sales.salesorderheader where
customerid in (select customerid from sales.customer where customerid like '[a-ao]%') and
salespersonid is not null group by salespersonid;
```

38. **orderdate of most expensive order:**

    ```
    select top 1 orderdate from sales.salesorderheader order by totaldue desc;
    ```

39. **Product name and total revenue from that product:**

    ```
    select p.name, sum(sod.lineTotal) as revenue from sales.salesorderdetail sod join
    production.product p on sod.productid = p.productid group by p.name;
    ```

40. **Supplierid and number of products offered:**

    ```
    select pv.businessentityid as supplierid, count(*) as total_products from
    production.productvendor pv group by pv.businessentityid;
    ```

41. **Top ten customers based on their business (total purchase):**

    ```
    select top 10 customerid, sum(totaldue) as total_spent from sales.salesorderheader group
    by customerid order by total_spent desc;
    ```

42. **What is the total revenue of the company:**

    ```
    select sum(totaldue) as Revenue from sales.salesorderheader;
    ```