Northwind Dataset

EASY QUESTIONS

1.Show the category_name and description from the categories table sorted by category_name.

Solution

```
SELECT category_name, description
FROM categories
ORDER BY category_name;
```

2.Show all the contact_name, address, city of all customers which are not from 'Germany', 'Mexico', 'Spain'

Solution

```
SELECT contact_name, address, city
FROM customers
WHERE Country NOT IN ('Germany','Mexico', 'Spain')
```

3.Show order_date, shipped_date, customer_id, Freight of all orders placed on 2018 Feb 26

Solution

```
SELECT order_date, shipped_date, customer_id, freight
FROM orders
WHERE order_date = '2018-02-26';
```

4.Show the employee_id, order_id, customer_id, required_date, shipped_date from all orders shipped later than the required date

Solution

```
SELECT employee_id, order_id, customer_id, required_date, shipped_date
FROM orders
WHERE shipped_date > required_date;
```

5.Show all the even numbered Order_id from the orders table

Solution

```
SELECT order_id
FROM orders
WHERE order_id % 2 = 0;
```

6.Show the city, company_name, contact_name of all customers from cities which contains the letter 'L' in the city name, sorted by contact_name

Solution

```
SELECT city, company_name, contact_name
FROM customers
WHERE city LIKE '%L%'
ORDER BY contact_name;
```

7.Show the company_name, contact_name, fax number of all customers that has a fax number. (not null)

Solution

```
SELECT company_name, contact_name, fax
FROM customers
WHERE Fax IS NOT NULL;
```

8.Show the first_name, last_name. hire_date of the most recently hired employee.

Solution

```
select
   first_name,
   last_name,
   max(hire_date) as hire_date
 from employees;
**********************************************
select first_name, last_name, hire_date
from employees
order by hire_date desc
limit 1
```

9.Show the average unit price rounded to 2 decimal places, the total units in stock, total discontinued products from the products table.

Solution

```
SELECT round(avg(Unit_Price), 2) AS average_price,
SUM(units_in_stock) AS total_stock,
SUM(discontinued) as total_discontinued
FROM products;
```

MEDIUM LEVEL QUESTIONS

10.Show the ProductName, CompanyName, CategoryName from the products, suppliers, and categories table

Solution

```
SELECT p.product_name, s.company_name, c.category_name
FROM products p
JOIN suppliers s ON s.supplier_id = p.Supplier_id
JOIN categories c On c.category_id = p.Category_id;
```

11.Show the category_name and the average product unit price for each category rounded to 2 decimal places.

Solution

```
SELECT c.category_name, round(avg(p.unit_price),2) as average_unit_price
FROM products p
JOIN categories c On c.category_id = p.Category_id
GROUP BY c.category_name;
```

12.Show the city, company_name, contact_name from the customers and suppliers table merged together.
Create a column which contains 'customers' or 'suppliers' depending on the table it came from.
Solution

```
select City, company_name, contact_name, 'customers' as identifier
from customers
union
select city, company_name, contact_name, 'suppliers' as identifier
from suppliers;
```

13.Show the total amount of orders for each year/month.
Solution

```
select
  year(order_date) as order_year,
  month(order_date) as order_month,
  count(*) as no_of_orders
from orders
group by order_year, order_month;
```

HARD LEVEL QUESTIONS

14.Show the employee's first_name and last_name, a "num_orders" column with a count of the orders taken, and a column called "Shipped" that displays "On Time" if the order shipped_date is less or equal to the required_date, "Late" if the order shipped late, "Not Shipped" if shipped_date is null.
Order by employee last_name, then by first_name, and then descending by number of orders.

Solution-->

```
SELECT
  e.first_name,
  e.last_name,
  COUNT(o.order_id) As num_orders,
  (
    CASE
      WHEN o.shipped_date <= o.required_date THEN 'On Time'
      WHEN o.shipped_date > o.required_date THEN 'Late'
      WHEN o.shipped_date is null THEN 'Not Shipped'
    END
  ) AS shipped
FROM orders o
  JOIN employees e ON e.employee_id = o.employee_id
GROUP BY
  e.first_name, e.last_name,shipped
ORDER BY
  e.last_name, e.first_name, num_orders DESC;
```

15.Show how much money the company lost due to giving discounts each year, order the years from most recent to least recent. Round to 2 decimal places
Solution-->

```
Select
YEAR(o.order_date) AS 'order_year' ,
ROUND(SUM(p.unit_price * od.quantity * od.discount),2) AS 'discount_amount'
â€‹
from orders o
JOIN order_details od ON o.order_id = od.order_id
JOIN products p ON od.product_id = p.product_id
â€‹
group by YEAR(o.order_date)
order by order_year desc;
```