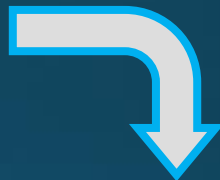# Report on Northwind Sales Analysis

PREPARED BY
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In this project I have utilized SQL queries to solve questions that were related to Northwind sales.

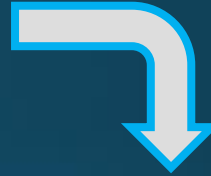**1. Show the category name and description from the categories table sorted by category name.**

```sql
select categoryname, description FROM categories
order by categoryname;
```

| | categoryname<br>character varying 🔒 | description<br>character varying 🔒 |
|---|---|---|
| 1 | Beverages | Soft drinks, coffees, teas, beers, and ales |
| 2 | Condiments | Sweet and savory sauces, relishes, spreads, and seasonin… |
| 3 | Confections | Desserts, candies, and sweet breads |
| 4 | Dairy Products | Cheeses |
| 5 | Grains/Cereals | Breads, crackers, pasta, and cereal |
| 6 | Meat/Poultry | Prepared meats |
| 7 | Produce | Dried fruit and bean curd |
| 8 | Seafood | Seaweed and fish |

## 2. Show all the contact name, city of all customers which are not from 'Germany', 'Mexico', 'Spain'.
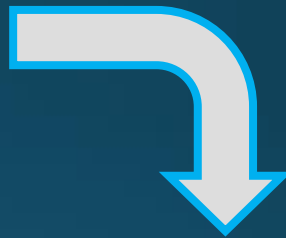
```sql
select contactname, city from customers
where country NOT IN ('Germany', 'Mexico', 'Spain')
```

| | contactname<br>character varying | city<br>character varying |
|---|---|---|
| 1 | Thomas Hardy | London |
| 2 | Christina Berglund | Luleå |
| 3 | Frédérique Citeaux | Strasbourg |
| 4 | Laurence Lebihan | Marseille |
| 5 | Elizabeth Lincoln | Tsawassen |
| 6 | Victoria Ashworth | London |
| 7 | Patricio Simpson | Buenos Aires |
| 8 | Yang Wang | Bern |
| 9 | Pedro Afonso | Sao Paulo |
| 10 | Elizabeth Brown | London |

3. Show order date, shipped date, customer id, Freight of all orders placed on 1998-03-02.

```sql
SELECT orderdate, shippeddate, customerid, freight
FROM orders
WHERE orderdate = '1998-03-02';
```

| | orderdate<br>date | shippeddate<br>date | customerid<br>character varying | freight<br>numeric |
|---|---|---|---|---|
| 1 | 1998-03-02 | 1998-03-11 | ROMEY | 8.29 |
| 2 | 1998-03-02 | 1998-03-11 | BOTTM | 48.83 |
| 3 | 1998-03-02 | 1998-03-04 | LINOD | 19.8 |

**4. Show the employee id, order id, customer id, required date, shipped date from all orders shipped later than the required date.**

```sql
select employeeid, orderid, customerid, requireddate,
shippeddate from orders
where shippeddate>requireddate;
```

| | employeeid integer | orderid integer | customerid character varying | requireddate date | shippeddate date |
|---|---|---|---|---|---|
| 1 | 6 | 10264 | FOLKO | 1996-08-21 | 1996-08-23 |
| 2 | 6 | 10271 | SPLIR | 1996-08-29 | 1996-08-30 |
| 3 | 2 | 10280 | BERGS | 1996-09-11 | 1996-09-12 |
| 4 | 4 | 10302 | SUPRD | 1996-10-08 | 1996-10-09 |
| 5 | 3 | 10309 | HUNGO | 1996-10-17 | 1996-10-23 |
| 6 | 5 | 10320 | WARTH | 1996-10-17 | 1996-10-18 |
| 7 | 8 | 10380 | HUNGO | 1997-01-09 | 1997-01-16 |

5. Show all the even numbered Order id from the orders table.

```sql
select orderid from orders
where orderid%2=0;
```

| | orderid integer 🔒 |
|---|---|
| 1 | 10248 |
| 2 | 10250 |
| 3 | 10252 |
| 4 | 10254 |
| 5 | 10256 |

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.

```sql
select city, companyname, contactname from customers
where city like '%L%'
order by contactname;
```

| | city character varying | companyname character varying | contactname character varying |
|---|---|---|---|
| 1 | Leipzig | Morgenstern Gesundkost | Alexander Feuer |
| 2 | London | Eastern Connection | Ann Devon |
| 3 | Lander | Split Rail Beer & Ale | Art Braunschweiger |
| 4 | Luleå | Berglunds snabbköp | Christina Berglund |
| 5 | London | Consolidated Holdings | Elizabeth Brown |
| 6 | London | Seven Seas Imports | Hari Kumar |
| 7 | Lisboa | Princesa Isabel Vinhos | Isabel de Castro |
| 8 | Lisboa | Furia Bacalhau e Frutos do Mar | Lino Rodriguez |
| 9 | Lille | Folies gourmandes | Martine Rancé |
| 10 | Lyon | Victuailles en stock | Mary Saveley |

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

```sql
select companyname, contactname, fax from customers
where fax is not null;
```

| | companyname<br>character varying | contactname<br>character varying | fax<br>character varying |
|---|---|---|---|
| 1 | Alfreds Futterkiste | Maria Anders | 030-0076545 |
| 2 | Ana Trujillo Emparedados y helados | Ana Trujillo | (5) 555-3745 |
| 3 | Around the Horn | Thomas Hardy | (171) 555-6750 |
| 4 | Berglunds snabbköp | Christina Berglund | 0921-12 34 67 |
| 5 | Blauer See Delikatessen | Hanna Moos | 0621-08924 |

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

```sql
select firstname, lastname, hiredate from employees
order by hiredate desc
limit 1;
```

| | firstname character varying 🔒 | lastname character varying 🔒 | hiredate date 🔒 |
|---|---|---|---|
| 1 | Anne | Dodsworth | 1994-11-15 |

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

```
select ROUND(avg(unitprice)::numeric,2), sum(unitsinstock) as TotalUnitsinstock,
sum(discontinued) as Discontinueproducts from products
```

| | round numeric | totalunitsinstock bigint | discontinueproducts bigint |
|---|---|---|---|
| 1 | 28.83 | 3119 | 10 |

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

```sql
select products.productname, suppliers.companyname, categories.categoryname
from products
inner join categories on
categories.categoryid=products.categoryid
inner join suppliers on
products.supplierid=suppliers.supplierid
```

| | productname<br>character varying 🔒 | companyname<br>character varying 🔒 | categoryname<br>character varying 🔒 |
|---|---|---|---|
| 1 | Chai | Specialty Biscuits, Ltd. | Beverages |
| 2 | Chang | Exotic Liquids | Beverages |
| 3 | Aniseed Syrup | Exotic Liquids | Condiments |
| 4 | Chef Anton's Cajun Seasoning | New Orleans Cajun Delights | Condiments |
| 5 | Chef Anton's Gumbo Mix | New Orleans Cajun Delights | Condiments |

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

```sql
select categories.categoryname, round(avg(unitprice)::numeric,2) from products
inner join categories on
categories.categoryid=products.categoryid
group by categoryname;
```

| | categoryname<br>character varying 🔒 | round<br>numeric 🔒 |
|---|---|---|
| 1 | Grains/Cereals | 20.25 |
| 2 | Seafood | 20.68 |
| 3 | Meat/Poultry | 54.01 |
| 4 | Beverages | 37.98 |
| 5 | Dairy Products | 28.73 |

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.

```sql
SELECT city, companyname, contactname, 'customers' AS source FROM customers
UNION
SELECT city, companyname, contactname, 'suppliers' AS source FROM suppliers;
```

| | city<br>character varying | companyname<br>character varying | contactname<br>character varying | source<br>text |
|---|---|---|---|---|
| 1 | Cowes | Island Trading | Helen Bennett | customers |
| 2 | Bergamo | Magazzini Alimentari Riuniti | Giovanni Rovelli | customers |
| 3 | Sao Paulo | Comércio Mineiro | Pedro Afonso | customers |
| 4 | Rio de Janeiro | Ricardo Adocicados | Janete Limeira | customers |
| 5 | Toulouse | La maison d'Asie | Annette Roulet | customers |

13. Show the employee's first_name and last_name, a "num_orders" column with acount 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. Order by employee last_name, then by first_name, and then descending by number of orders.

```sql
SELECT e.firstname, e.lastname, COUNT(o.orderid) AS numorders,(CASE
WHEN o.shippeddate <= o.requireddate THEN 'On Time'
ELSE 'Late'
END)AS Shipped
FROM employees e
JOIN orders o ON e.employeeid = o.employeeid
GROUP BY e.firstname, e.lastname, shipped
ORDER BY e.lastname ASC, e.firstname ASC, numorders DESC;
```

| | firstname character varying 🔒 | lastname character varying 🔒 | numorders bigint 🔒 | shipped text 🔒 |
|---|---|---|---|---|
| 1 | Steven | Buchanan | 41 | On Time |
| 2 | Steven | Buchanan | 1 | Late |
| 3 | Laura | Callahan | 96 | On Time |
| 4 | Laura | Callahan | 8 | Late |
| 5 | Nancy | Davolio | 118 | On Time |

14. 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.

```sql
SELECT EXTRACT (YEAR from orders.orderdate) AS Year,
ROUND(SUM(orders_details.discount * products.unitprice * orders_details.quantity)
::NUMERIC, 2) AS LostRevenue
FROM orders_details
JOIN orders ON orders.orderid = orders_details.orderid
JOIN products ON orders_details.productid = products.productid
GROUP BY Year
ORDER BY Year;
```

| | year numeric 🔒 | lostrevenue numeric 🔒 |
|---|---|---|
| 1 | 1996 | 22779.48 |
| 2 | 1997 | 43732.77 |
| 3 | 1998 | 29147.47 |