## [Lab no. 06]

# [Data Base Management System] [Sub Queries]

**Task No 01:** Find the company's name that placed order 10290. (Tables: Customers & Orders).

#### **Solution:**

```
USE Northwind;
SELECT c.companyName
FROM Customers c
JOIN orders o ON c.customerID = o.customerID
WHERE o.OrderID = 10290;
```

## **Output:**



**Task No 02:** Create a report that shows the product name and supplier id for all products supplied by Exotic Liquids, Tokyo Traders, Ma Maison and Lyngbysild. (Tables: Products & Suppliers)

#### **Solution:**

```
USE Northwind;
SELECT p.ProductName, p.SupplierID
FROM Products p
JOIN Suppliers s ON p.SupplierID = s.SupplierID
WHERE s.CompanyName IN ('Exotic Liquids', 'Tokyo Traders', 'Ma Maison', 'Lyngbysild');
Output
```

## **Output:**

| <b>O</b> C | uery executed su | ccessfully. |
|------------|------------------|-------------|
| 3          | Aniseed Syrup    | 1           |
| 2          | Chang            | 1           |
| 1          | Chai             | 1           |
|            | ProductName      | SupplierID  |

**Task No 03:** Create a report that shows all products by name that are in the Confections. (Tables: Products & Categories)

#### **Solution:**

```
USE Northwind;
SELECT p.ProductName
FROM Products p
JOIN Categories c ON p.CategoryID = c.CategoryID
WHERE c.CategoryName = 'Confections';
```

## **Output:**



**Task No 04:** Retrieve name of product having maximum, minimum and average unit price along with their prices. (Tables: Products)

#### **Solution:**

```
USE Northwind;
SELECT
ProductName,
UnitPrice
FROM
Products
WHERE
```

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```
UnitPrice = (SELECT MAX(UnitPrice) FROM Products)
OR UnitPrice = (SELECT MIN(UnitPrice) FROM Products)
OR UnitPrice = (SELECT AVG(UnitPrice) FROM Products);
```

## **Output:**



**Task No 05:** Create a report that shows all 5 companies by name that sell products in the Seafood category. (Tables: Suppliers, Products & Categories)

#### **Solution:**

```
USE Northwind;
SELECT DISTINCT s.CompanyName
FROM Suppliers s
JOIN Products p ON s.SupplierID = p.SupplierID
JOIN Categories c ON p.CategoryID = c.CategoryID
WHERE c.CategoryName = 'Seafood';
```

## **Output:**

| <ul> <li>Query executed successfully.</li> </ul> |                    |
|--|--------------------|
| 3  | Mayumi's           |
| 2  | Lyngbysild         |
| 1  | Escargots Nouveaux |
|  | CompanyName        |

**Task No 06:** Write query using a "sub query" to display which Customers were served by which Employee. (Tables: Customers & Employees)

#### **Solution:**

```
USE Northwind;
select c.CustomerID, c.contactName, o.EmployeeID, e.firstNAme
from Customers c join Orders o on o.CustomerID = c.CustomerID
join Employees e on e.EmployeeID = o.EmployeeID
where c.customerID in (select customerID from Orders);
```

#### **Output:**



**Task No 07:** Write query using a "sub query" to list of all the stores that have discount records (use pubs).

#### **Solution:**

```
USE Northwind;
SELECT DISTINCT store.stor_name
FROM stores store
JOIN sales sale ON store.stor_id = sale.stor_id
WHERE sale.discount > 0;
```

# **Output:**

**Task No 08:** Write query using a "sub query" to list all the authors available in Barnum's store (use pubs).

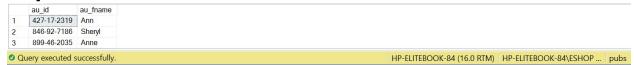
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#### **Solution:**

```
USE Northwind;
Select au_id, au_fname from authors where au_id in
(Select au_id from titleauthor where title_id
in(select title_id from sales where stor_id
in(select stor_id from stores where stor_name = 'Barnum''s')));
```

## **Output:**



**Task No 09:** Write query using a "sub query" to give the customer id and amount spent of the customer who spent the most.

#### **Solution:**

#### **Output:**



**Task No 10:** Write a query using a "sub query" to find customers who have placed orders. (Tables: Customers &

Orders)

#### **Solution:**

```
USE Northwind;
select customerID, ContactName from Customers
where CustomerID in (select CustomerID from Orders);
```

#### **Output:**

|             | customerID                   | ContactName    |  |
|-------------|------------------------------|----------------|--|
| 1           | ALFKI                        | Maria Anders   |  |
| 2           | ANATR                        | Ana Trujillo   |  |
| 3           | ANTON                        | Antonio Moreno |  |
| 4           | AROUT                        | Thomas Hardy   |  |
| <b>O</b> Qu | Query executed successfully. |                |  |

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