**SQL WITH NORTHWIND**

**Objectives: SQL Statements**

**Task** : Practice writing SQL statements on the Northwind database.

**What will the application do?**

Write SQL queries to do the following:

1. Select all the rows from the "Customers" table.

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| SELECT DISTINCT \*  FROM [NORTHWND].[dbo].[Customers] |

1. Get distinct countries from the Customers table.

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| SELECT DISTINCT [Country]  FROM [NORTHWND].[dbo].[Customers] |

1. Get all the rows from the table Customers where the Customer’s ID starts with “BL”.

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| SELECT DISTINCT \*  FROM [NORTHWND].[dbo].[Customers]  WHERE CustomerID LIKE 'BL%' |

1. Get the first 100 records of the orders table. DISCUSS: Why would you do this? What else would you likely need to include in this query?

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| SELECT TOP (100) \*  FROM [NORTHWND].[dbo].[Orders]   1. Using TOP 100 , allows the user to subset data and limit it to a certain number of rows. Otherwise data sets could be millions of records causing inefficiencies in querying. 2. A user can pair it with WHERE , HAVING , ORDER BY to further filter the results. By using the DESC or ASC on the primary key one can get the top 100 or bottom 100 of a data set. |

1. Get all customers that live in the postal codes 1010, 3012, 12209, and 05023.

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| SELECT \*  FROM [NORTHWND].[dbo].[Customers]  WHERE PostalCode IN ('1010','3012','12209','05023') |

1. Get all orders where the ShipRegion is not equal to NULL.

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| SELECT \*  FROM [NORTHWND].[dbo].[Orders]  WHERE ShipRegion IS NOT NULL |

1. Get all customers ordered by the country, then by the city.

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| SELECT \*  FROM [NORTHWND].[dbo].[Customers]  ORDER BY Country desc ,City asc |

1. Add a new customer to the customers table. You can use whatever values.

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| INSERT INTO [NORTHWND].[dbo].[Customers]  VALUES  ('EDUAR','Grand Circus ','Eduardo Garcia','Student','1570 Woodward Ave Level 3', 'Detroit', 'MI' ,'48226','USA','(313) 338-2780','1(313) 338-2780') |

1. Update all ShipRegion to the value ‘EuroZone’ in the Orders table, where the ShipCountry is equal to France.

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| UPDATE [NORTHWND].[dbo].[Orders]  SET ShipRegion ='EuroZone'  WHERE ShipCountry='France' |

1. Delete all orders from OrderDetails that have quantity of 1.

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| DELETE FROM [NORTHWND].[dbo].[Order Details]  WHERE Quantity=1 |

1. Find the CustomerID that placed order 10290 (orders table).

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| SELECT \*  FROM [NORTHWND].[dbo].[Orders]  WHERE OrderID=10290 |

1. Join the orders table to the customers table.

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| SELECT [Orders].\*  FROM [NORTHWND].[dbo].[Orders]  JOIN [NORTHWND].[dbo].[Customers] ON Orders.CustomerID=Customers.CustomerID |

1. Get employees’ firstname for all employees who report to no one.

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| SELECT FirstName  FROM [NORTHWND].[dbo].[Employees]  WHERE ReportsTo IS NULL |

1. Get employees’ firstname for all employees who report to Andrew.

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| SELECT FirstName  FROM [NORTHWND].[dbo].[Employees]  WHERE ReportsTo =(SELECT EmployeeID FROM [NORTHWND].[dbo].[Employees] WHERE FirstName='Andrew') |

**Extra Challenges:**

Optional additional query practice (extended challenge):

1. Calculate the average, max, and min of the quantity at the orderdetails table, grouped by the orderid.
2. Calculate the average, max, and min of the quantity at the orderdetails table.
3. Find all customers living in London or Paris
4. Do an inner join, left join, right join on orders and customers tables.
5. Make a list of cities where customers are coming from. The list should not have any duplicates or nulls.
6. Show a sorted list of employees’ first names.
7. Find total for each order
8. Get a list of all employees who got hired between 1/1/1994 and today
9. Find how long employees have been working for Northwind (in years!)
10. Get a list of all products sorted by quantity (ascending and descending order)
11. Find all products that are low on stock (quantity less than 6)
12. Find a list of all discontinued products.
13. Find a list of all products that have Tofu in them.
14. Find the product that has the highest unit price.
15. Get a list of all employees who got hired after 1/1/1993
16. Get all employees who have title : “Ms.” And “Mrs.”
17. Get all employees who have a Home phone number that has area code 206