

SQL

Session - 05

Learning Objectives

- SQL – DISTINCT
- SQL – TOP, ORDER BY, GROUP BY
- SQL – MIN(), MAX(), COUNT(), AVG(), SUM()
- SQL – LIMIT Clause
- SQL – HAVING Clause

SQL – DISTINCT Statement

Syntax

```
SELECT DISTINCT column1, column2, ...  
FROM <table-name>;
```

SQL – GROUP BY Statement

Syntax

```
SELECT <column-name(s)>  
FROM <table-name>  
WHERE <condition>  
GROUP BY <column-name(s)>;
```

SQL – COUNT(), AVG() and SUM()

Syntax

```
SELECT COUNT(<column-name>)  
FROM <table-name>  
WHERE condition;
```

```
SELECT SUM(<column-name>)  
FROM <table-name>  
WHERE condition;
```

```
SELECT AVG(<column-name>)  
FROM <table-name>  
WHERE condition;
```

SQL – AS (Alias)

Syntax

```
SELECT <column-name> AS <alias-name>  
FROM <table-name>;
```

Example

```
SELECT MAX(Price) AS LargestPrice  
FROM Products;
```

```
SELECT CustomerName, Address + ', ' + PostalCode + ' ' + City + ', ' + Country AS Address  
FROM Customers;
```

SQL – ORDER BY Keyword

Syntax

```
SELECT column1, column2, ...  
FROM <table-name>  
ORDER BY column1, column2, ... ASC|DESC;
```

SQL – LIMIT Clause

Syntax

```
SELECT <column-name(s)>  
FROM <table-name>  
WHERE condition  
LIMIT number;
```


SQL – MIN() AND MAX()

Syntax

```
SELECT MIN(<column-name>)  
FROM <table-name>  
WHERE condition;
```

```
SELECT MAX(<column-name>)  
FROM <table-name>  
WHERE condition;
```

SQL – HAVING Clause

Syntax

```
SELECT column1, column2, ...  
FROM <table-name>  
WHERE condition  
HAVING condition;
```

SQL - Tasks

1. List of all the countries (No duplicates).
2. Display the names of countries and the number of customers belonging to each country in ascending order of the country name.
3. Selects all customers from the "Customers" table, sorted ascending by the "Country" and descending by the "CustomerName".
4. Display name and price of Top 3 costliest products.
5. Give the name and price of the cheapest and costliest product.
6. Count the number of orders shipped by each shipper.
7. Count number of products ordered by order Id : 10278.
8. Total quantity ordered for product id : 54.
9. Get numbers of items in order_id '10278'.
10. How orders have been made by customer_id '10'.
11. How many orders have number of products more than 3.