SQL

① The SELECT statement is used to select data from a database.

① SELECT * From Customer // find all data from table

Syntax → Select * from table_Name

② find all data from Column1 and Column2 :-

SELECT CustomerName, City From Customers;

The SQL SELECT DISTINCT Statement

The SELECT DISTINCT statement is used to return only distinct (different) values.

Inside a table many duplicate values; and Sometimes you only want to list the different values.

Syntax SELECT DISTINCT Column1, Column2...
from table_Name;

② without Distinct

SELECT Country From Customers.

① SELECT DISTINCT Country From Customers;

③ Count no of different Country

SELECT COUNT (DISTINCT Country) From Customers;

The SQL WHERE clause

The WHERE clause is used to filter records.

Syntax

```
SELECT Column1, Column2, ...
From table_Name
WHERE Conditions;
```

Example

① SELECT * FROM Customers WHERE Country = 'Mexico';

② SELECT * From Customers WHERE CustomerID = 1;

Operators in The WHERE Clause

=	<>	Similar to !=
>	BETWEEN	
<	LIKE	
>=	IN	
<=		

SQL AND, OR and NOT Operators

AND Syntax

```
SELECT Column1, Column2, ...
From table_name
WHERE Condition1 And Condition2 AND ...;
```

OR Syntax

```
SELECT Column1, Column2, ...
From table_Name
Where Condition1 OR Condition2 OR Condition3 ...;
```

NOT Syntax

```
SELECT Column1, Column2, ...
FROM table_name
WHERE NOT Condition;
```

AND Example

```
SELECT * FROM Customers WHERE Country =
'Germany' AND City = 'Berlin';
```

OR Example

```
SELECT * FROM Customers WHERE City =
'Berlin' OR City = 'München';
```

NOT Example

```
SELECT * FROM Customers WHERE NOT Country =
'Germany';
```

Combining AND, OR, and NOT

Example

```
SELECT * FROM Customers WHERE Country =
'Germany' AND (City = 'Berlin' OR City = 'München');
```

Example

```
SELECT * FROM Customers
WHERE NOT Country = 'Germany' AND NOT Country =
'USA';
```

SQL ORDER By Keyword

The ORDER By keyword is used to sort the result set in ascending or descending order.

Syntax

```
SELECT Column1, Column2, ....
From table_name
ORDER By Column1, Column2, .... ASC|DESC
```

Example

1. SELECT * FROM Customers ORDER By Country;
2. SELECT * FROM Customers ORDER By Country DESC;
3. SELECT * FROM Customers ORDER By Country, CustomerName.
4. SELECT * FROM Customers ORDER By Country ASC, CustomerName DESC;

SQL INSERT INTO Statement

The INSERT INTO statement is used to insert new records in a table.

INSERT INTO Syntax

It is possible to write the INSERT INTO statment in two ways.

1. Specify both the column names and the values to be inserted:

```
INSERT INTO table_name (Column1, Column2,
    Column3, ---) Value (Value1, Value2, Value
    ,---);
```

2. If you are adding values for all the Columns of the table.

Syntax

```
INSERT INTO table_name Value (value1,
    value2, value3, ---);
```

Example

```
INSERT INTO Customers (customerName, ContactName,
    Address, City, PistalCode, Country) Value ('
    Cardinal', 'Tom B. Erichsen', 'Skagen 21', 'Sta
    gen', 4006, 'Norway'),
```

MySQL NULL Value

What is a NULL Value?

A field with a NULL value is a field with no value.

Syntax

```
SELECT Coloum_name
FROM table_name
WHERE Column_name IS NULL;
```

Example

```
SELECT CustomersName, ContactName, Address
FROM Customers
WHERE Address IS NULL;
```

Example 2

IS NOT NULL

```
SELECT CustomersName, ContactName, Address
FROM Customers
WHERE Address IS NOT NULL;
```

MySQL UPDATE Statement

The UPDATE Statement is used to modify the existing records in a table.

Syntax

```
UPDATE table_Name
SET Column1 = Value1, Column2 = value2,...
WHERE Condition;
```

Example

```
UPDate Customers
SET ContactName = 'Alfred Schmidt', City =
'Frankfurt'
WHERE CustomerID = 1;
```

UPDATE Multiple Records

```
UPDATE Customers
SET PostalCode = 00000
WHERE Country = 'Mexico';
```

MySQL DELETE Statement

The DELETE statement is used to delete existing records in a table

Syntax

```
DELETE FROM table_name WHERE Condition;
```

Example

```
DELETE FROM Customers WHERE CustomerName = "Alfred
```

Delete All Records

Syntax DELETE FROM table_name;

Example

```
DELETE FROM Customers;
```

MySQL Limit Clause

The Limit clause is used to specify the number of records to return.

Limit Syntax

```
SELECT column_name
FROM table_name
WHERE condition
Limit number;
```

Example

```
SELECT * FROM Customers
Limit 3;
```

ADD a WHERE CLAUSE

```
SELECT * FROM Customers
WHERE Country = 'Germany'
Limit 3;
```

MySQL MIN() and MAX() Functions

The MIN() function returns the smallest value of the Selected Column.

The MAX() function returns the largest value of the selected Column.

MIN() Syntax

```
SELECT MIN(Column_name)
FROM table_name
WHERE Condition;
```

MAX() Syntax

```
SELECT MAX(Column_name)
FROM table_name
WHERE Condition;
```

MIN() Example

```
SELECT MIN(price) As Smallestprice
FROM products;
```

MAX() Example

```
SELECT MAX(price) As Largestprice
FROM Products;
```