SQL

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This is the tutorial on SQL

Create Table

```
CREATE TABLE customer (
ID INT PRIMARY KEY AUTO_INCREMENT,
Name VARCHAR(255),
Address VARCHAR(255),
City VARCHAR(255),
PostalCode INT,
Country VARCHAR(255));
```

Insert Rows into Table

Syntax

```
INSERT INTO table_name (column1, column2, column3, ...)
VALUES (value1, value2, value3, ...);
```

By Single Line

```
INSERT INTO customer VALUES
(1, 'Alfred Futterkiste', "Obere Str. 57", "Berlin", 12209, 'Country');
```

By Multiple Lines

```
INSERT INTO customer VALUES
(2, 'Ana Trujillo Emparedados y helados', "Avda. de la Constitución 2222", "México D.
```

```
F.", 05021, 'Mexico'),
(3,"Antonio Moreno Taquería","Mataderos","México D.F.",05023  ,"Mexico"),
(4,"Around the Horn","120 Hanover Sq.","London","WA1 1DP","UK");
```

In the above the `Wa1 1DP` is String but `postal code` column was INT so it is inserted 0 to Data base

SELECT

All Rows at once

```
SELECT * FROM CUSTOMERS;
```

Selective Rows

```
SELECT Name, PostalCode, Address FROM customer;
```

Name	PostalCode	Address
Alfred Futterkiste	12209	Obere Str. 57
Ana Trujillo Emparedados y helados	5021	Avda. de la Constitución 2222
Antonio Moreno Taquería	5023	Mataderos
Around the Horn	65023	120 Hanover Sq.

DISTINCT

It selects the DISTINCT value from each specified column

```
SELECT DISTINCT * FROM customer;
```

WHERE

```
SELECT * FROM customer WHERE ID = 4
```

AND , OR , NOT

AND

```
SELECT * from customer WHERE id = 1 and name = "Alfred Futterkiste";
```

1 ROW IS DISPLAYED

OR

```
SELECT * from customer WHERE id = 1 and name = "Alfred" OR id = 2;
```

NOT

```
SELECT * from customer WHERE NOT id = 2;
```

Order By

```
SELECT * from customer ORDER BY Address;
```

ASC

```
SELECT * from customer ORDER BY Address ASC;
```

DESC

```
SELECT * from customer ORDER BY Address DESC;
```

2 or more columns

```
SELECT * from customer ORDER BY Name,Address;
```

NULL/ NOT NULL

```
SELECT * from customer Where PostalCode is not NUll;
```

```
SELECT * from customer Where PostalCode is NUll;
```

UPDATE

```
UPDATE customer SET Name = "Robbi" , PostalCode = 20232 WHERE ID = 2;
```

DELETE

Column

```
DELETE FROM customer WHERE ID = 4;
```

Entire Records

```
DELETE FROM customer;
```

LIMIT

```
SELECT * FROM Customer WHERE ID < 4 LIMIT 2;
```

It can also work without WHERE :)

MIN / MAX

MIN

```
SELECT MIN(PostalCode) FROM customer;
```

```
SELECT MIN(PostalCode) AS MIN_POS FROM customer;
```

MAX

```
SELECT MAX(PostalCode) FROM customer;
```

```
SELECT MAX(PostalCode) AS MAX_AMT FROM Customer;
```

COUNT(), AVG() and SUM()

Count()

```
SELECT COUNT(Name) FROM Customer;
```

```
SELECT COUNT(Name) as COUNT_NUMBER FROM Customer;
```

SUM()

```
SELECT SUM(PostalCode) FROM customer;
```

AVG()

```
SELECT AVG(PostalCode) FROM customer;
```

> ❗ Note :
> The AVG(), SUM() only works if the colum has INT value else returns 0

LIKE

Syntax

```
SELECT column1, column2, ...
FROM table_name
WHERE columnN LIKE pattern;
```

LIKE Operator	Description
WHERE CustomerName LIKE 'a%'	Finds any values that start with "a"
WHERE CustomerName LIKE '%a'	Finds any values that end with "a"
WHERE CustomerName LIKE '%or%'	Finds any values that have "or" in any position
WHERE CustomerName LIKE '_r%'	Finds any values that have "r" in the second position
WHERE CustomerName LIKE 'a_%'	Finds any values that start with "a" and are at least 2 characters in length
WHERE CustomerName LIKE 'a__%'	Finds any values that start with "a" and are at least 3 characters in length
WHERE ContactName LIKE 'a%o'	Finds any values that start with "a" and ends with "o"

```
SELECT * FROM customer WHERE Name LIKE 'c%r';
```

In

```
SELECT * FROM customer WHERE NAME IN ('Chandrashekhar','Robbi');
```

BETWEEN

```
SELECT * FROM customer WHERE PostalCode BETWEEN 200 AND 200000;
```

BETWEEN with IN

```
SELECT * FROM customer
WHERE PostalCode BETWEEN 200 AND 200000
OR Name IN ('Chandrashekhar','Robbi');
```

ALIAS

```
SELECT Name AS Customer_name FROM customer;
```