# SQL SELECT Statement

## The SQL SELECT Statement

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

The data returned is stored in a result table, called the result-set.

### SELECT Syntax

|  |
| --- |
| **SELECT column1, column2, ... FROM table\_name;** |

Here, column1, column2, ... are the field names of the table you want to select data from.

**If you want to select all the fields available in the table, use the following syntax:**

|  |
| --- |
| SELECT \* FROM table\_name; |

## Demo Database

Below is a selection from the "Customers" table in the North wind sample database:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| CustomerID | CustomerName | ContactName | Address | City | PostalCode | Country |
| 1 | Alfreds Futterkiste | Maria Anders | Obere Str. 57 | Berlin | 12209 | Germany |
| 2 | Ana Trujillo Emparedados y helados | Ana Trujillo | Avda. de la Constitución 2222 | México D.F. | 05021 | Mexico |
| 3 | Antonio Moreno Taquería | Antonio Moreno | Mataderos 2312 | México D.F. | 05023 | Mexico |
| 4 | Around the Horn | Thomas Hardy | 120 Hanover Sq. | London | WA1 1DP | UK |
| 5 | Berglunds snabbköp | Christina Berglund | Berguvsvägen 8 | Luleå | S-958 22 | Sweden |

## SELECT Column Example

The following SQL statement selects the "CustomerName" and "City" columns from the "Customers" table:

Example

|  |
| --- |
| SELECT CustomerName, City FROM Customers; |

## Exercise

1.Insert the missing statement to get all the columns from the Customers table

 \* FROM Customers;

Answer: **select**

2. Write a statement that will select the City column from the Customers table.

   Customers;

Answer:

**Select city from customers;**

# SQL SELECT DISTINCT Statement

## The SQL SELECT DISTINCT Statement

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

Inside a table, a column often contains many duplicate values; and sometimes you only want to list the different (distinct) values.

### SELECT DISTINCT Syntax

### SQL WHERE Clause

### The SQL WHERE Clause

**The WHERE clause is used to filter records.**

It is used to extract only those records that fulfill a specified condition.

### WHERE Syntax

|  |
| --- |
| SELECT column1, column2, ... FROM table\_name WHERE condition; |

**Note:** **The WHERE clause is not only used in SELECT statements, it is also used in UPDATE, DELETE, etc.!**

## WHERE Clause Example

**The following SQL statement selects all the customers from the country "chennai", in the "Customers" table:**

### Text Fields vs. Numeric Fields

**SQL requires single quotes around text values (most database systems will also allow double quotes).**

**However, numeric fields should not be enclosed in quotes:**

### Example

|  |
| --- |
| SELECT \* FROM Customers WHERE CustomerID=1; |

### Operators in The WHERE Clause

|  |  |
| --- | --- |
| Operator | Description |
| = | **Equal** |
| > | **Greater than** |
| < | **Less than** |
| >= | **Greater than or equal** |
| <= | **Less than or equal** |
| <> | **Not equal. Note: In some versions of SQL this operator may be written as !=** |
| BETWEEN | **Between a certain range** |

**The following operators can be used in the WHERE clause:**

### Exercise:

Select all records where the City column has the value "Berlin".

|  |
| --- |
| SELECT \* FROM Customers   1. WHERE CITY ‘chennai’   2. select\*from customers  WHERE postalcode ='600054'; Syntax |
| select\*from customers  WHERE postalcode ='600054'; --where | |
| SELECT \* FROM customers  WHERE price = 18; --Equal (=) | |
| SELECT \* FROM customers  WHERE Price > 30; --greater(>) | |
| SELECT \* FROM customers  WHERE Price < 30; --(<)lesser than | |
| SELECT \* FROM customers  WHERE Price >= 30; --Greater than or equal >= | |
| SELECT \* FROM customers  WHERE Price <= 30 --Less than or equal <= | |
| SELECT \* FROM customers  WHERE Price <> 18; --<> Not equal. Note: In some versions of SQL this  operator may be written as != | |
| SELECT \* FROM customers  WHERE Price BETWEEN 50 AND 60; -- Between a certain range(AND) | |