The SELECT Clause

In this lesson, we will take a look at the SELECT statement.

We'll cover the following

- The SELECT clause
  - Syntax
  - Example
  - Quick quiz!

The SELECT clause

The SQL **SELECT** statement is used to fetch the data from a database table that returns this data in the form of a result table. These result tables are called **result-sets**.

Syntax

The basic syntax of the `SELECT` statement is as follows:

```
SELECT column1, column2, ... columnN FROM table_name;
```

Here, `SELECT` specifies the column1, column2... to be selected and the `FROM` clause specifies from which table these columns are to be selected.

If you want to fetch all the fields available in the table, then you can use the following syntax:

```
SELECT * FROM table_name;
```

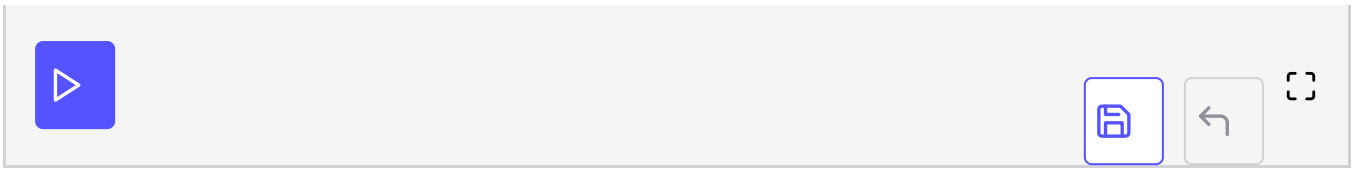
Example

Consider the CUSTOMERS table we used in the last lesson:

ID	NAME	AGE	ADDRESS	SALARY
1	Mark	32	Texas	50000.00
2	John	25	NY	65000.00
3	Emily	23	Ohio	20000.00
4	Bill	25	Chicago	75000.00
5	Tom	27	Washington	35000.00
6	Jane	22	Texas	45000.00

Let's say we want to fetch the `ID`, `Name` and `Salary` fields of the customers available in the CUSTOMERS table. To do this we must specify these three column names after the `SELECT` statement. The following code shows how this is possible:

```
CREATE TABLE CUSTOMERS(
  ID   INT              NOT NULL,
  NAME VARCHAR (20)     NOT NULL,
  AGE  INT              NOT NULL,
  ADDRESS  CHAR (25) ,
  SALARY   DECIMAL (18, 2),  /* The (18,2) simply means that we can have 18 digits with 2 of
  PRIMARY KEY (ID)
);

INSERT INTO CUSTOMERS (ID, NAME, AGE, ADDRESS, SALARY)
VALUES (1, 'Mark', 32, 'Texas', 50000.00 );

INSERT INTO CUSTOMERS (ID, NAME, AGE, ADDRESS, SALARY)
VALUES (2, 'John', 25, 'NY', 65000.00 );

INSERT INTO CUSTOMERS (ID, NAME, AGE, ADDRESS, SALARY)
VALUES (3, 'Emily', 23, 'Ohio', 20000.00 );

INSERT INTO CUSTOMERS (ID, NAME, AGE, ADDRESS, SALARY)
VALUES (4, 'Bill', 25, 'Chicago', 75000.00 );

INSERT INTO CUSTOMERS (ID, NAME, AGE, ADDRESS, SALARY)
VALUES (5, 'Tom', 27, 'Washington', 35000.00 );

INSERT INTO CUSTOMERS (ID, NAME, AGE, ADDRESS, SALARY)
VALUES (6, 'Jane', 22, 'Texas', 45000.00 );

SELECT ID, NAME, SALARY FROM CUSTOMERS;
```



The `SELECT` statement on **line 28** is used to fetch the data in the specified columns.

Now let's fetch all of the columns using * after the `SELECT` clause in the CUSTOMERS table:

```
CREATE TABLE CUSTOMERS(
  ID   INT              NOT NULL,
  NAME VARCHAR (20)     NOT NULL,
  AGE  INT              NOT NULL,
  ADDRESS  CHAR (25) ,
  SALARY   DECIMAL (18, 2),  /* The (18,2) simply means that we can have 18 digits with 2 of
  PRIMARY KEY (ID)
);

INSERT INTO CUSTOMERS (ID, NAME, AGE, ADDRESS, SALARY)
VALUES (1, 'Mark', 32, 'Texas', 50000.00 );

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SELECT * FROM CUSTOMERS;
```

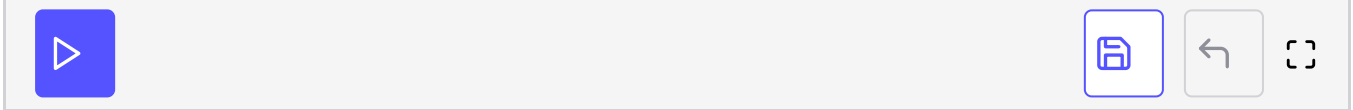

Quick quiz!

Q

Which of the following SELECT statements will display the NAME, AGE and ADDRESS columns only?

A)

```
SELECT *
FROM CUSTOMERS;
```

B)

```
SELECT NAME, AGE, ADDRESS
FROM CUSTOMERS;
```

C)

```
SELECT ID, NAME, AGE, ADDRESS, SALARY
FROM CUSTOMERS;
```

D)

```
SELECT NAME, AGE, ADDRESS
FROM CUSTOMERS
```

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In the next lesson, we will discuss how to use the `WHERE` clause.