

Inserting Rows

`INSERT` clause is used to insert new rows in a table.

Syntax

```
1  INSERT INTO
2      table_name (column1, column2,..., columnN)
3  VALUES
4      (value11, value12,..., value1N),
5      (value21, value22,..., value2N),
6      ...;
```

SQL

Any number of rows from 1 to n can be inserted into a specified table using the above syntax.

Database

Let's learn more about the `INSERT` clause by going hands-on on the

`player` and `match_details` tables that store the details of players and matches in a tournament respectively.

- `player` table stores the name, age and score of players.
- `match_details` table stores name of team, opponent team name, place, date and match result

Examples

1. Insert `name` , `age` and `score` of 2 players in the `player` table.

```
1  INSERT INTO
2      player (name, age, score)
3  VALUES
4      ("Rakesh", 39, 35),
5      ("Sai", 47, 30);
```

SQL

Upon executing the above code, both the entries would be added to the

`player` table.

Let's view the added data!

We can retrieve the inserted data by using the following command.

SQL

```
1 SELECT *
2 FROM player;
```

We shall know more about retrieving data in further cheat sheets.

2. Similarly, let's insert the details of 2 matches in the match_details table.

```
1 INSERT INTO
2   match_details (team_name, played_with, venue, date, is_won)
3 VALUES
4   ("CSK", "MI", "Chennai", "2020-04-21", true),
5   ("SRH", "RR", "Hyderabad", "2020-04-23", true);
```

SQL

Note

1. Boolean values can be either given as (TRUE or FALSE) or (1 or 0). But in the database, the values are stored as 1 or 0.
2. Date object is represented as: 'YYYY-MM-DD'
3. Datetime object is represented as: 'YYYY-MM-DD HH:MM:SS'

Possible Mistakes

Mistake 1

The number of values that we're inserting must match with the number of column names that are specified in the query.

```
1 INSERT INTO
2   player(name, age, score)
3 VALUES
4   ("Virat", 31);
```

SQL

```
1 Error: 2 values for 3 columns
```

SQL

Mistake 2

We have to specify only the existing tables in the database.

```
1 INSERT INTO
```

SQL

```
2  players_information(name, age, score)
3  VALUES
4  ("Virat", 31, 30);
```

SQL

1 Error: no such table: players_information

Mistake 3

Do not add additional parenthesis

0 post VALUES keyword in the code.

```
1  INSERT INTO
2  player (name, age, score)
3  VALUES
4  (("Rakesh", 39, 35), ("Sai", 47, 30));
```

SQL

1 Error: 2 values for 3 columns

SQL

Mistake 4

While inserting data, be careful with the datatypes of the input values. Input value datatype should be same as the column datatype.

```
1  INSERT INTO
2  player(name, age, score)
3  VALUES
4  ("Virat", 31, "Hundred");
```

SQL

Warning

If the datatype of the input value doesn't match with the datatype of column, SQLite doesn't raise an error.

Try it Yourself!

- Three new players have joined the tournament. Try inserting the players' data in the player table.

name

age

score

name	age	score
Ram	28	70
Sita	25	30
Ravi	30	53