

# 4.1

## The INSERT Clause With a Column List

### The INSERT Clause With a Column List

- You can INSERT single or multiple rows at a time.
- An INSERT with a column list DOES NOT require you to provide a value for each column. If you do not want to provide a value for a specific column, you do not have to include it in the column list. For columns that allow null values, the system will automatically provide a null value for you.
- If you want a column that provides a default value such as an auto-increment column to be populated with the default value, you do not need to list the column in the column list. The system will automatically provide the default value.
- When coding with a column list, the columns may appear in any order as long as the VALUES list matches the order of the column list.

*Below is a basic example of an INSERT statement with a column list:*

```
1  USE world;  
2  INSERT INTO city  
3      (name, countryCode, district, population)
```

4 VALUES

5 ("San Felipe", "CHL", "Valparaiso", 64126);

Results:

The screenshot shows a MySQL query editor with the following SQL code:

```
1 USE world;  
2 INSERT INTO city  
3 (name, countrycode, district, population)  
4 VALUES  
5 ('San Felipe', 'CHL', 'Valparaiso', 64126);  
6
```

Annotations in the image:

- A box labeled "Column List" points to the column list: `(name, countrycode, district, population)`.
- A box labeled "No quotes because this is a number" points to the value `64126`.
- A box labeled "Quotes required because these values are strings." points to the string values `'San Felipe'`, `'CHL'`, and `'Valparaiso'`.

The Output pane shows the execution results:

#	Time	Action
1	09:53:09	USE world
2	09:53:09	INSERT INTO city (name, countrycode, district, population) VALUES ('San Felipe', 'CHL', 'Valparaiso', 64126)

Results of the Insert:

The screenshot shows a MySQL query editor with the following SQL code:

```
1 SELECT *  
2 FROM CITY  
3 WHERE name = 'san felipe'  
4 AND countrycode = 'chl';  
5
```

An annotation points to the WHERE clause: "An auto-increment value was automatically provided."

The Result Grid shows the following data:

ID	Name	CountryCode	District	Population
4082	San Felipe	CHL	Valparaiso	64126
*	NULL	NULL	NULL	NULL

**INSERT INTO city**

- Insert the value into the city table. The INTO keyword is not required.

**(name, countryCode, district, population)**

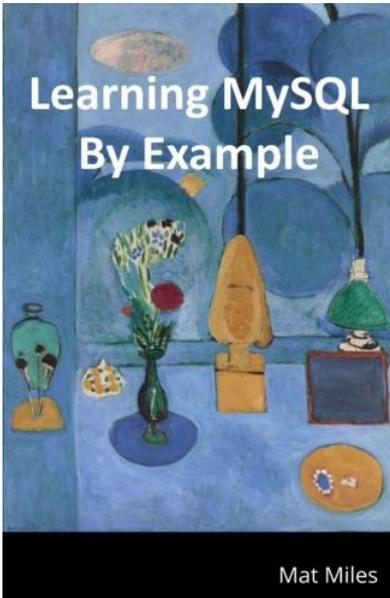
- The column list is comma-separated and enclosed in parentheses.

**VALUES**

- The VALUES keyword is between the column list and the actual values. No commas are necessary.

**("San Felipe", "CHL", "Valparaiso", 64126);**

- The values order must appear in the corresponding order of the column list.
- You must enclose strings in quotes.
- You must not enclose numbers in quotes.
- You do not have to specify columns that allow null values or default values in the column list. They will automatically get a null or default value.



Miles, M. (2021). *Learning MySQL By Example*. EdTech Books. [https://edtechbooks.org/learning\\_mysql](https://edtechbooks.org/learning_mysql)