

## 2.4

# How to Code a UNION

### How to Code a UNION

- A **UNION** combines the results of two or more queries into a single result set
- Each result set must have the same number of columns
- The corresponding data types for each column must be compatible. However, the column names may be different from each result set
- A **UNION** removes duplicate rows by default
- You may interfile the results using an **ORDER BY** clause if there is a column with a common name.

*Code Example:*

```
1 USE world;  
2 SELECT name, population  
3 FROM city WHERE CountryCode = 'AUS'  
4 UNION  
5 SELECT name, population  
6 FROM country  
7 WHERE continent = 'Oceania'  
8 ORDER BY name;
```

Results:

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

```
1 • USE world;
2 • SELECT name, population
3   FROM city WHERE CountryCode = 'AUS'
4 UNION
5 SELECT name, population
6   FROM country
7   WHERE continent = 'Oceania'
8 ORDER BY name;
9
```

Below the query editor is a 'Result Grid' showing the output of the query. The grid has two columns: 'name' and 'population'. The results are as follows:

name	population
Adelaide	978100
American Samoa	68000
Australia	18886000
Brisbane	1291117
Cairns	92273
Canberra	322723
Central Coast	227657

Legend:

- Country and population from country table (Cyan background)
- City and population from cities table (Yellow background)

**SELECT name, population  
FROM city  
WHERE CountryCode = 'AUS'**

- The first query returns the name and population from the city table.
- The filter (**WHERE CLAUSE**) of the query limits the country code to Australia.

**UNION**

- The '**UNION**' clause will combine this query with the results of the subsequent query.

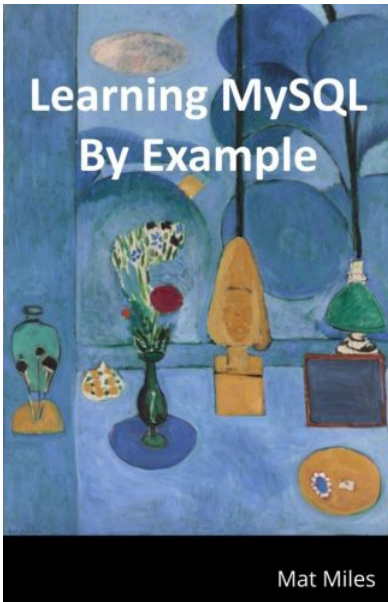
**SELECT name, population**

**FROM country**  
**WHERE continent = 'Oceania'**

- The second query returns the name and population from the country table.
- The filter (**WHERE** CLAUSE) of the query limits the continent code to Oceania.

**ORDER BY name;**

- It is possible to sort (**ORDER BY** CLAUSE) and interfile the results of both queries because each query shares a column with the same name. Otherwise, the **ORDER BY** clause would generate an error.



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