



CHAPTER 6: UNIONS

2023

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WHAT IS UNION

The UNION operator is used to combine the result-set of two or more SELECT statements.

UNION

UNION Rules

- ☐ Each query must return the same number of columns.
- ☐ The columns must be in the same order.
- ☐ Column datatypes must be compatible.

UNION

```
SELECT column_name(s) FROM table1  
UNION  
SELECT column_name(s) FROM table2;
```

```
SELECT City FROM Customers  
UNION  
SELECT City FROM Suppliers  
ORDER BY City;
```

UNION WHERE

```
SELECT City, Country FROM Customers  
WHERE Country= 'Germany'  
UNION  
SELECT City, Country FROM Suppliers  
WHERE Country= 'Germany'  
ORDER BY City;
```

UNION VS UNION ALL

UNION

When using UNION command all the selected columns need to be of the same data type. With UNION only **distinct** values are selected.

UNION ALL

UNION ALL command is equal to UNION command except that UNION ALL selects all the values.

The difference between Union and Union all is that Union all will not eliminate duplicate rows

Instead, it just pulls all the rows from all the tables fitting your query specifics and combines them into a table.

UNION ALL

```
SELECT City FROM Customers
UNION ALL
SELECT City FROM Suppliers
ORDER BY City;
```

```
SELECT City, Country FROM Customers
WHERE Country= 'Germany'
UNION ALL
SELECT City, Country FROM Suppliers
WHERE Country= 'Germany'
ORDER BY City;
```


Practice UNION (USE ALL 3 TABLES)

1. Run a query to compile a view of the males, females and unknown applicants
2. Run a query to compile a view of everyone who attended a full-time course, whether they entered their gender or not

HR_M

enrollee_id	city	city_development_index	gender	relevent_experience	enrolled_university
32403	city_41	0.8270000000000001	Male	Has relevent experience	Full time course
31806	city_21	0.624	Male	No relevent experience	no_enrollment
27385	city_13	0.8270000000000001	Male	Has relevent experience	no_enrollment
27724	city_103	0.92	Male	Has relevent experience	no_enrollment
217	city_23	0.899	Male	No relevent experience	Part time course
12994	city_173	0.878	Male	Has relevent experience	no_enrollment
16287	city_21	0.624	Male	Has relevent experience	Full time course
10856	city_103	0.92	Male	Has relevent experience	no_enrollment
9272	city_90	0.698	Male	Has relevent experience	no_enrollment
14249	city_46	0.762	Male	Has relevent experience	no_enrollment
7865	city_21	0.624	Male	Has relevent experience	no_enrollment
7463	city_13	0.8270000000000001	Male	Has relevent experience	no_enrollment
29033	city_21	0.624	Male	No relevent experience	Full time course

HR_F

enrollee_id	city	city_development_index	gender	relevent_experience	enrolled_university	education_level
9858	city_103	0.92	Female	Has relevent experience	no_enrollment	Graduate
27302	city_160	0.92	Female	Has relevent experience	no_enrollment	Graduate
19139	city_103	0.92	Female	Has relevent experience	Part time course	Graduate
25855	city_103	0.92	Female	Has relevent experience	no_enrollment	Graduate
2094	city_64	0.6659999999999999	Female	Has relevent experience	no_enrollment	Graduate
12919	city_103	0.92	Female	Has relevent experience	no_enrollment	Graduate
21920	city_16	0.91	Female	No relevent experience	no_enrollment	Phd
14566	city_69	0.856	Female	Has relevent experience	Part time course	Graduate
10021	city_16	0.91	Female	Has relevent experience	no_enrollment	Graduate
22999	city_21	0.624	Female	Has relevent experience	no_enrollment	Graduate
19780	city_105	0.794	Female	Has relevent experience	no_enrollment	Masters
17205	city_114	0.9259999999999999	Female	Has relevent experience	no_enrollment	Masters
11169	city_21	0.624	Female	Has relevent experience	no_enrollment	Graduate

Practice UNION

1. Get all the country names from the tables countries and countriesother into one table
2. Get all the country names from the tables countries and countriesother into one table, ensure that there are no duplicates.
3. Get the first 5 country name and number of prizes for all the countries
4. Get the name of the countries from both table only if the percentage of prizes won by males is 100%



Practice UNION ADDITIONAL PRACTICE

1. Get all the data from the tables.
2. Get all the data from the tables if the students are male.
3. Get all the data from table 1 if the students are females and all data from table 2 if they are above 15 years.



Practice UNION ADDITIONAL PRACTICE

1. Produce a result with orders with quantities greater than 500.
2. Produce a result of all the different product types you can order.
3. produce a result with all orders that happened on the third month of the years.
4. produce a result with all the product names and quantiles that were ordered between 2021 AND 2023.
5. produce a result showing all the orders made by orderID 11.
6. produce a result with all products ordered beginning with a 'C'