

JOINING TABLES

INNER JOIN:

Inner join selects records that have matching values in both tables

```
SELECT PERSON.person_name, UNIVERSITY.university_name FROM  
PERSON INNER JOIN UNIVERSITY ON PERSON.university =  
UNIVERSITY.university_id
```

LEFT JOIN

Left join returns all records from left table (TABLE 1) and the matched records from the right table (TABLE 2). Note that if there is no match from the right side → the result is **NULL !!!**

```
SELECT PERSON.person_name, UNIVERSITY.university_name FROM  
PERSON LEFT JOIN UNIVERSITY ON PERSON.university =  
UNIVERSITY.university_id
```

RIGHT JOIN

Left join returns all records from right table (TABLE 2) and the matched records from the left table (TABLE 1). Note that if there is no match from the left side → the result is **NULL !!!**

```
SELECT PERSON.person_name, UNIVERSITY.university_name FROM  
PERSON RIGHT JOIN UNIVERSITY ON PERSON.university =  
UNIVERSITY.university_id
```

/* count the number of cities by countries

**SELECT countryTable.name AS Country,
COUNT(cityTable.country_code) AS NumOfCities FROM city AS
cityTable JOIN country AS countryTable ON cityTable.country_code
= countryTable.code GROUP BY cityTable.country_code ORDER BY
NumOfCities DESC;**

/* count the population by continents

**SELECT SUM(cityTable.population) AS TotalPopulation,
countryTable.continent AS Continent FROM city AS cityTable JOIN
country AS countryTable ON cityTable.country_code =
countryTable.code GROUP BY countryTable.continent ORDER BY
TotalPopulation DESC;**