

The world database

We are going to use a [world database](#), which can be found on the MySQL official website. The data is outdated, but it does not affect us.

Examining the database

```
mysql> SHOW TABLES;
+-----+
| Tables_in_world |
+-----+
| City             |
| Country          |
| CountryLanguage  |
+-----+
```

```
mysql> DESCRIBE City;
+-----+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default | Extra           |
+-----+-----+-----+-----+-----+-----+
| ID         | int(11)   | NO   | PRI | NULL    | auto_increment |
| Name       | char(35)  | NO   |     |         |                 |
| CountryCode | char(3)   | NO   | MUL |         |                 |
| District   | char(20)  | NO   |     |         |                 |
| Population | int(11)   | NO   |     | 0       |                 |
+-----+-----+-----+-----+-----+-----+
```

Limiting data output

There are thousands of rows in the tables of the database. They cannot be displayed all on the screen. We can control the number of rows to be displayed with the `LIMIT` clause.

```
mysql> SELECT Id, Name, Population FROM City LIMIT 10;
+-----+-----+-----+
| Id | Name           | Population |
+-----+-----+-----+
| 1  | Kabul         | 1780000   |
| 2  | Qandahar      | 237500    |
| 3  | Herat         | 186800    |
| 4  | Mazar-e-Sharif | 127800    |
| 5  | Amsterdam     | 731200    |
| 6  | Rotterdam     | 593321    |
| 7  | Haag          | 440900    |
| 8  | Utrecht       | 234323    |
| 9  | Eindhoven     | 201843    |
| 10 | Tilburg       | 193238    |
+-----+-----+-----+
```

- 1.- Show three of the five columns of the City table. There are lots of rows in the table. We limit the query to the first 10 rows.
- 2.- The LIMIT clause can be followed by two numbers. The first one is the offset and the second one is the number of rows to display. Show rows 16-20.
- 3.- There are 4079 cities in the table. We use the built-in COUNT() function to find out the number of rows;
- 4.- Show the most populated city in the table.
- 5.- Show the least populated city in the table.
- 6.- Returns all cities with a population above one million people.
- 7.- Select all city names which begin with Kal.
- 8.- Select all columns for one specific city, namely Bratislava.
- 9.- Find cities with a population in the range 670,000 and 700,000.
- 10.- Find the 10 most populated cities.
- 11.- Get the 10 least populated cities.
- 12.- Order data by city name and get the first ten cities
- 13.- The total number of people in the towns of the New York.
- 14.- Select all districts of USA which have population over 3 million people.
- 15.- The name of the HeadofState. If the database is outdated updated it.