

# Database query

This probe performs a SQL-query to one of the following databases: MySQL (4.1 - 5.7), MS SQL (Microsoft SQL Server 2005 / 2008 / 2008 R2 / 2012 / 2014), PostgreSQL (9.x), Oracle (9.0 - 11.2) and HP Vertica.

- [Example](#)
- [Result](#)
- [Terminal counterpart](#)
- [Known problems and errors](#)

## Example

**Monitoring** ★

Agent	<input type="text" value="Saymon Agent Staging (ID:817)"/>
Probe type	<input type="text" value="Database query"/>
Database type	<input type="text" value="MySQL"/>
Hostname	<input type="text" value="localhost"/>
Port	<input type="text" value="3306"/>
Database name:	<input type="text" value="saymondb"/>
Instance name:	<input type="text" value="false"/>
Login	<input type="text" value="saymon"/>
Password	<input type="password" value="*****"/>
Encoding	<input type="text" value="utf8"/>
SQL query	<input type="text" value="select count(id) from states"/>
Period	<input type="text" value="30"/> <input type="text" value="seconds"/>

Field	Description
Database type	Select: MySQL, PostgreSQL, MS SQL, Oracle, HP Vertica
Hostname	Localhost by default
Port	Default: MySQL - 3306; PostgreSQL - 5432; MS SQL - 1433; Oracle - 1521; HP Vertica - 1521
Database name	Database name to which the request is being made
Instance name	Database instance name in which the request is being made
Login	DB username
Password	DB Password
Encoding	SQL query encoding
SQL query	SQL query text (you can only use SELECT command, and query field is limited to 1024 characters)
Period	Describes how often to perform the check(60 seconds by default)

## Result

After the check has been done the result is displayed in the data table:

Data		Table for field: -- Not selected --	Exact values: <input checked="" type="radio"/> NO		
count(id)					
9					
Rows: 1					

Field	Description
count(id)	Number of records in the "ID" column from the "States" table

**Raws** is an additional field in which the array length is indicated.

Total number of rows is displayed when the array value is the result of the probe or the input data.

## Terminal counterpart

Counterpart execution of this check in the terminal:

```
mysql -u saymon -p
mysql> show databases
-> ;
+-----+
| Database          |
+-----+
| information_schema |
| saymondb          |
+-----+
2 rows in set (0.00 sec)
```

```
mysql> use saymondb
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A
```

```
Database changed
mysql> show tables
-> ;
+-----+
| Tables_in_saymondb |
+-----+
| class_categories   |
| classes            |
| history            |
| migration          |
| obj_prop_types     |
| object_properties  |
| objects            |
| relation_types     |
| relations          |
| state_history      |
| states             |
+-----+
11 rows in set (0.00 sec)
```

```
mysql> select count(id) from states;
+-----+
| count(id) |
+-----+
|          9 |
+-----+
1 row in set (0.00 sec)
```

## Known problems and errors

Sensor error! Can not issue data manipulation statements with executeQuery().

Incorrectly specified SQL query.

**Sensor error! Connection refused (Connection refused)**

Check the correctness of the specified port number (Default: MySQL - 3306; PostgreSQL - 5432; MS SQL - 1433; Oracle - 1521; HP Vertica - 1521).

**Sensor error! Access denied for user 'say'@'localhost'**

It is necessary to check the correctness of the data indicated in the fields: Login and Password.