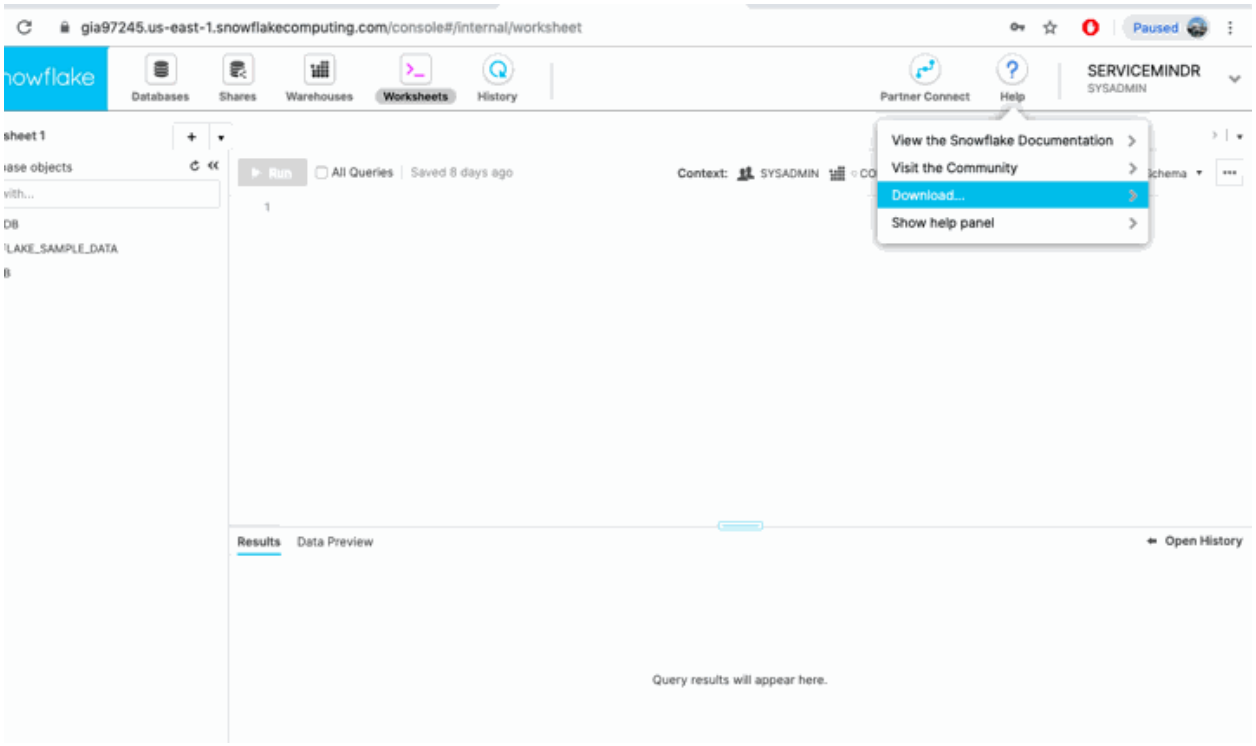
Install and configure SnowSQL

SnowSQL is the command-line interface for accessing your Snowflake instance.

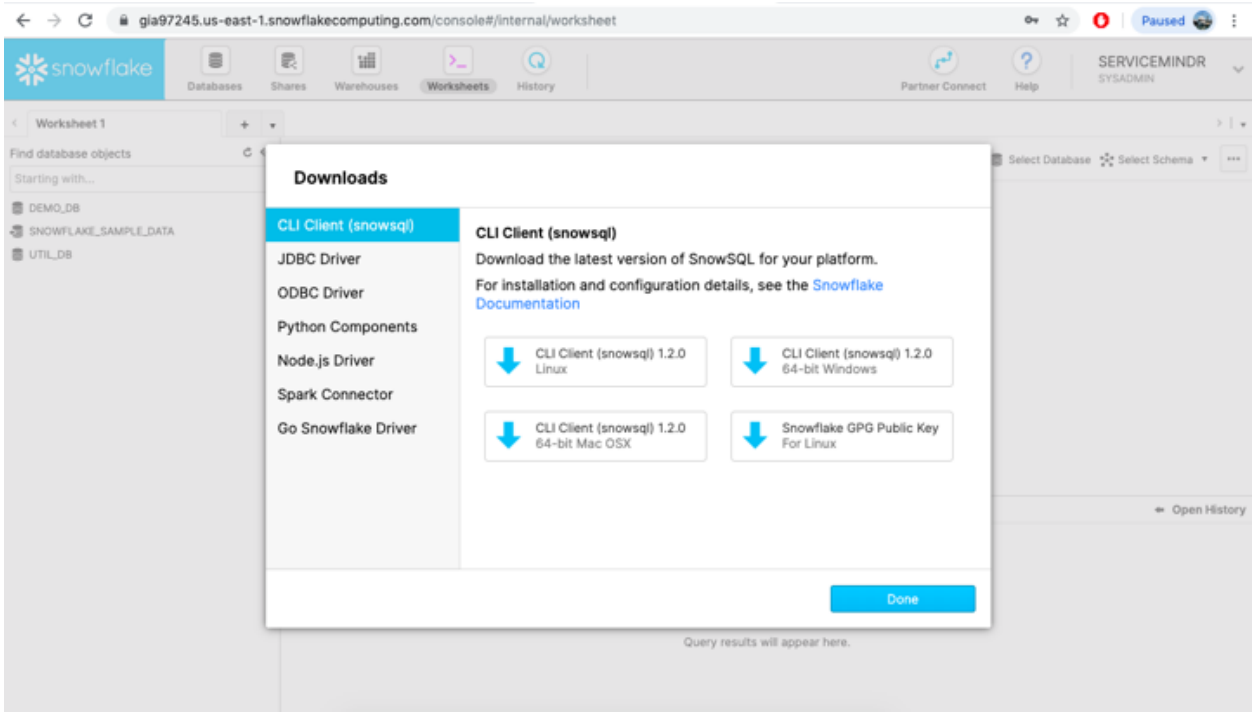
The following is a quick "how to" guide for setting it up.

Installation

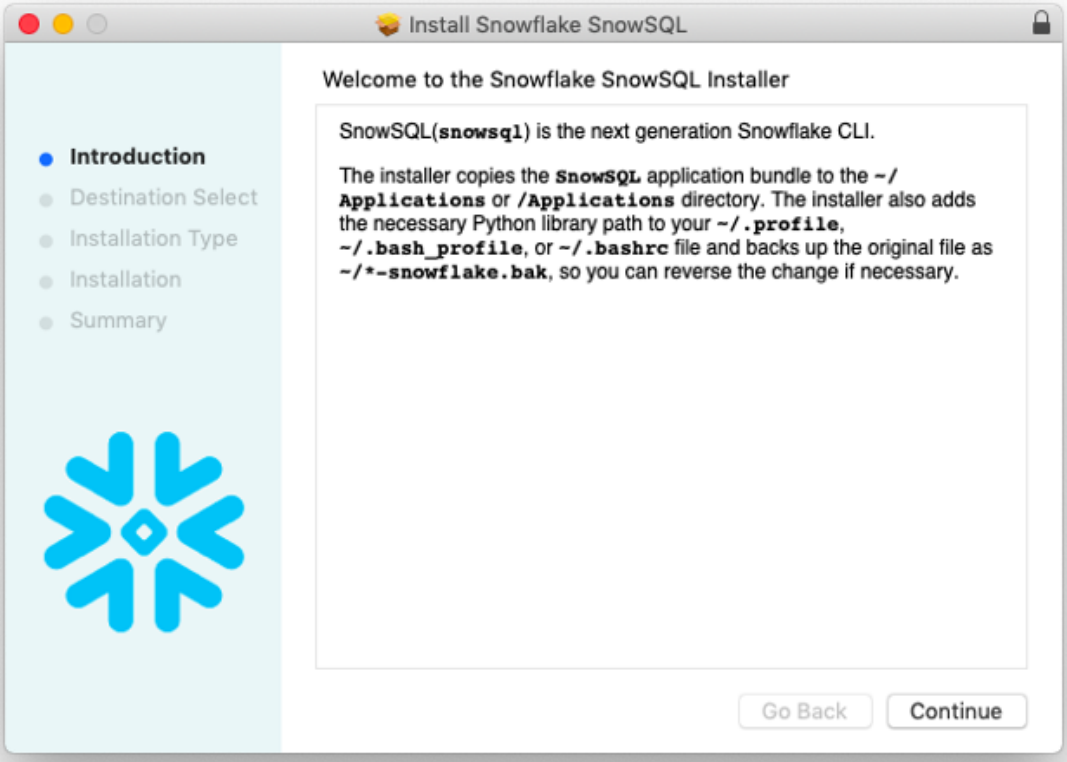
After logging into your Snowflake web interface, the SnowSQL installer is available via Help -> Download:

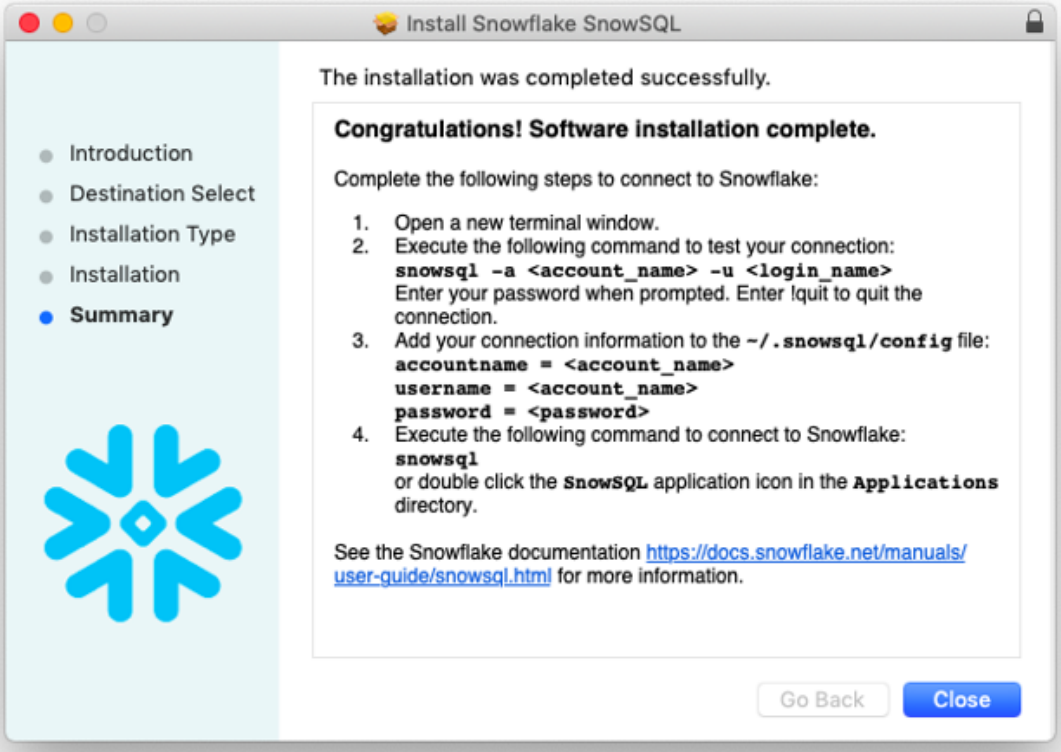


You'll need to select the appropriate version for your machine:



..and install it:


Install Snowflake SnowSQL
Introduction
Destination Select
Installation Type
Installation
Summary
Welcome to the Snowflake SnowSQL Installer
SnowSQL(snowsql) is the next generation Snowflake CLI.
The installer copies the SnowSQL application bundle to the ~/Applications or /Applications directory. The installer also adds the necessary Python library path to your ~/.profile, ~/.bash_profile, or ~/.bashrc file and backs up the original file as ~/*-snowflake.bak, so you can reverse the change if necessary.
Go Back
Continue



To verify installation, simply open a terminal window and run snowsql. If installed properly, you will receive a list of connection and option flags:

```
$ snowsql
Usage: snowsql [OPTIONS]
Options:
  -a, --accountname TEXT          Name assigned to your Snowflake account. If
                                  you are not on us-west-2 or AWS deployement,
                                  append the region and platform to the end,
                                  e.g., <account>.<region> or
                                  <account>.<region>.<platform>Honors
                                  $SNOWSQL_ACCOUNT.
  -u, --username TEXT             Username to connect to Snowflake. Honors
                                  $SNOWSQL_USER.
  -d, --dbname TEXT               Database to use. Honors $SNOWSQL_DATABASE.
  -s, --schemaname TEXT           Schema in the database to use. Honors
                                  $SNOWSQL_SCHEMA.
  -r, --rolename TEXT             Role name to use. Honors $SNOWSQL_ROLE.
  -w, --warehouse TEXT            Warehouse to use. Honors $SNOWSQL_WAREHOUSE.
  -h, --host TEXT                 Host address for the connection. Honors
                                  $SNOWSQL_HOST.
  -p, --port INTEGER              Port number for the connection. Honors
                                  $SNOWSQL_PORT.
  --region TEXT                   (DEPRECATED) Append the region or any sub
```

```
                          domains before snowflakecomputing.com to the
                          end of accountname parameter after a dot.
                          e.g., accountname=<account>.<region>
  -m, --mfa-passcode TEXT Token to use for multi-factor authentication
                          (MFA)
  --mfa-passcode-in-password  Appends the MFA passcode to the end of the
                          password.
  --abort-detached-query  Aborts a query if the connection between the
                          client and server is lost. By default, it
                          won't abort even if the connection is lost.
  --probe-connection      Test connectivity to Snowflake. This option
                          is mainly used to print out the TLS/SSL
                          certificate chain.
  --proxy-host TEXT       (DEPRECATED. Use HTTPS_PROXY and HTTP_PROXY
                          environment variables.) Proxy server
                          hostname. Honors $SNOWSQL_PROXY_HOST.
  --proxy-port INTEGER    (DEPRECATED. Use HTTPS_PROXY and HTTP_PROXY
                          environment variables.) Proxy server port
                          number. Honors $SNOWSQL_PROXY_PORT.
  --proxy-user TEXT       (DEPRECATED. Use HTTPS_PROXY and HTTP_PROXY
                          environment variables.) Proxy server
                          username. Honors $SNOWSQL_PROXY_USER. Set
                          $SNOWSQL_PROXY_PWD for the proxy server
                          password.
  --authenticator TEXT    Authenticator: 'snowflake',
                          'externalbrowser' (to use any IdP and a web
                          browser), or
                          https://<your_okta_account_name>.okta.com
                          (to use Okta natively).
  -v, --version           Shows the current SnowSQL version, or uses a
                          specific version if provided as a value.
  --noup                  Disables auto-upgrade for this run. If no
                          version is specified for -v, the latest
                          version in ~/.snowsql/ is used.
  -D, --variable TEXT     Sets a variable to be referred by &<var>. -D
                          tablename=CENUSTRACKONE or --variable
                          db_key=$DB_KEY
  -o, --option TEXT       Set SnowSQL options. See the options
                          reference in the Snowflake documentation.
  -f, --filename PATH     File to execute.
  -q, --query TEXT        Query to execute.
  --config PATH           Path and name of the SnowSQL configuration
                          file. By default, ~/.snowsql/config.
  -P, --prompt            Forces a password prompt. By default,
                          $SNOWSQL_PWD is used to set the password.
  -M, --mfa-prompt        Forces a prompt for the second token for
                          MFA.
  -c, --connection TEXT   Named set of connection parameters to use.
  --single-transaction    Connects with autocommit disabled. Wraps
                          BEGIN/COMMIT around statements to execute
                          them as a single transaction, ensuring all
                          commands complete successfully or no change
                          is applied.
  --private-key-path PATH Path to private key file in PEM format used
```

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                          for key pair authentication. Private key
                          file is required to be encrypted and
                          passphrase is required to be specified in
                          environment variable
                          $SNOWSQL_PRIVATE_KEY_PASSPHRASE
    -U, --upgrade             Force upgrade of SnowSQL to the latest
                          version.
    -K, --client-session-keep-alive
                          Keep the session active indefinitely, even
                          if there is no activity from the user..
    --disable-request-pooling     Disable request pooling. This can help speed
                          up connection failover
    -?, --help                Show this message and exit.
```

Configuration

As indicated above, SnowSQL has a host of connection params and settings, and allows variable declaration and substitution. You won't need to be familiar with all the options to hit the ground running, but I definitely recommend leveraging ~/.snowsql/config to persist your connection details and personal preferences.

Create ~/.snowsql/config

```
$ touch ~/.snowsql/config
```

Add your connection details to the [connections] section.

The first few lines of your ~/.snowsql/config file should look like the following:

```
[connections]
accountname = YOUR_ACCOUNT_NAME
username = YOUR_USERNAME
password = YOUR_PASSWORD
```

Connect SnowSQL from prompt:

Sudo snowsql -a ix21114.ap-south-1

```
User: sreenivaskalahasti
Password:
* SnowSQL * v1.2.21
Type SQL statements or !help
sreenivaskalahasti#COMPUTE_WH@(no database).(no schema)>!help
+------------+-----------------------------------------+-------------+-------------------------------------------------------------------------------------------------------+
| Command    | Use                                     | Aliases     | Description                                                                                           |
|------------+-----------------------------------------+-------------+-------------------------------------------------------------------------------------------------------|
| !abort     | !abort <query id>                       |             | Abort a query                                                                                         |
| !connect   | !connect <connection_name>              |             | Create a new connection                                                                               |
| !define    | !define <variable>=<value>              |             | Define a variable as the given value                                                                  |
| !edit      | !edit <query>                           |             | Opens up a text editor. Useful for writing longer queries. Defaults to last query                     |
| !exit      | !exit                                   | !disconnect | Drop the current connection                                                                           |
| !help      | !help                                   | !helps, !h  | Show the client help.                                                                                 |
| !options   | !options                                | !opts       | Show all options and their values                                                                     |
| !pause     | !pause                                  |             | Pauses running queries.                                                                               |
| !print     | !print <message>                        |             | Print given text                                                                                      |
| !queries   | !queries help, <filter>=<value>, <filter> |           | Lists queries matching the specified filters. Write <!queries> help for a list of filters.            |
| !quit      | !quit                                   | !q          | Drop all connections and quit SnowSQL                                                                 |
| !rehash    | !rehash                                 |             | Refresh autocompletion                                                                                |
| !result    | !result <query id>                      |             | See the result of a query                                                                             |
| !set       | !set <option>=<value>                   |             | Set an option to the given value                                                                      |
| !source    | !source <filename>, <url>               | !load       | Execute given sql file                                                                                |
| !spool     | !spool <filename>, off                  |             | Turn on or off writing results to file                                                                |
| !system    | !system <system command>                |             | Run a system command in the shell                                                                     |
| !variables | !variables                              | !vars       | Show all variables and their values                                                                   |
+------------+-----------------------------------------+-------------+-------------------------------------------------------------------------------------------------------+
sreenivaskalahasti#COMPUTE_WH@(no database).(no schema)>use TRAINING_DB;
+----------------------------------+
| status                           |
|----------------------------------|
| Statement executed successfully. |
+----------------------------------+
1 Row(s) produced. Time Elapsed: 0.740s
sreenivaskalahasti#COMPUTE_WH@TRAINING_DB.PUBLIC>show databases;
```

```
+------------------------------+----------------------+------------+------------+-------------------------+-------------+-------------------------------------
--------------+---------+----------------+
| created_on                   | name                 | is_default | is_current | origin                  | owner       | comment
| options | retention_time |
|------------------------------+----------------------+------------+------------+-------------------------+-------------+-------------------------------------
--------------+---------+----------------|
| 2022-01-09 05:50:52.078 -0800 | OUR_FIRST_DATABASE    | N          | N          |                         | ACCOUNTADMIN |
|         | 1              |
| 2022-01-02 08:12:50.161 -0800 | S3_TO_SNOWFLAKE       | N          | N          |                         | ACCOUNTADMIN |
|         | 1              |
| 2022-01-01 06:52:23.299 -0800 | SNOWFLAKE             | N          | N          | SNOWFLAKE.ACCOUNT_USAGE |              |
|         | 1              |
| 2022-01-01 06:52:27.797 -0800 | SNOWFLAKE_SAMPLE_DATA | N          | N          | SFC_SAMPLES.SAMPLE_DATA |
ACCOUNTADMIN | Provided by Snowflake during account provisioning |         | 1              |
| 2022-01-09 05:47:44.610 -0800 | TRAINING_DB           | N          | Y          |                         | ACCOUNTADMIN |
|         | 1              |
+------------------------------+----------------------+------------+------------+-------------------------+-------------+-------------------------------------
--------------+---------+----------------+
5 Row(s) produced. Time Elapsed: 0.156s
sreenivaskalahasti#COMPUTE_WH@TRAINING_DB.PUBLIC>show TABLES;
+------------------------------+-----------+---------------+-------------+-------+---------+------------+------+-------+--------------+----------------+---
-------------------+-----------------+--------------------+----------------------------+--------------------------+-------------+
| created_on                   | name      | database_name | schema_name | kind  | comment | cluster_by | rows | bytes |
owner        | retention_time | automatic_clustering | change_tracking | search_optimization |
search_optimization_progress | search_optimization_bytes | is_external |
|------------------------------+-----------+---------------+-------------+-------+---------+------------+------+-------+--------------+----------------+----
------------------+-----------------+--------------------+----------------------------+--------------------------+-------------|
| 2022-01-09 05:49:55.808 -0800 | EMP_BASIC | TRAINING_DB   | PUBLIC      | TABLE |         |            |    0 |     0 |
ACCOUNTADMIN | 1              | OFF                  | OFF             | OFF                 |                         NULL |                      NULL |
N           |
+------------------------------+-----------+---------------+-------------+-------+---------+------------+------+-------+--------------+----------------+---
-------------------+-----------------+--------------------+----------------------------+--------------------------+-------------+
1 Row(s) produced. Time Elapsed: 0.163s
sreenivaskalahasti#COMPUTE_WH@TRAINING_DB.PUBLIC>use OUR_FIRST_DATABASE;
+----------------------------------+
| status                           |
|----------------------------------|
| Statement executed successfully. |
+----------------------------------+
1 Row(s) produced. Time Elapsed: 0.143s
sreenivaskalahasti#COMPUTE_WH@OUR_FIRST_DATABASE.PUBLIC>show tables;
+------------------------------+--------------+--------------------+-------------+-------+---------+------------+------+-------+--------------+-------------
---+---------------------+----------------+--------------------+----------------------------+--------------------------+-------------+
| created_on                   | name         | database_name      | schema_name | kind  | comment | cluster_by | rows |
bytes | owner        | retention_time | automatic_clustering | change_tracking | search_optimization |
search_optimization_progress | search_optimization_bytes | is_external |
|------------------------------+--------------+--------------------+-------------+-------+---------+------------+------+-------+--------------+--------------
--+---------------------+----------------+--------------------+----------------------------+--------------------------+-------------|
| 2022-01-09 05:52:24.313 -0800 | LOAN_PAYMENT | OUR_FIRST_DATABASE | PUBLIC      | TABLE |         |            |    0
|     0 | ACCOUNTADMIN | 1              | OFF                  | OFF             | OFF                 |                         NULL |
NULL | N           |
+------------------------------+--------------+--------------------+-------------+-------+---------+------------+------+-------+--------------+-------------
---+---------------------+----------------+--------------------+----------------------------+--------------------------+-------------+
1 Row(s) produced. Time Elapsed: 0.144s
sreenivaskalahasti#COMPUTE_WH@OUR_FIRST_DATABASE.PUBLIC>SELECT CURRENT_WAREHOUSE();
+---------------------+
| CURRENT_WAREHOUSE() |
```

```
|--------------------|
| COMPUTE_WH         |
+--------------------+
1 Row(s) produced. Time Elapsed: 0.144s
sreenivaskalahasti#COMPUTE_WH@OUR_FIRST_DATABASE.PUBLIC>use WAREHOUSE TRAINING_WH;
+----------------------------------+
| status                           |
|----------------------------------|
| Statement executed successfully. |
+----------------------------------+
1 Row(s) produced. Time Elapsed: 0.146s
sreenivaskalahasti#TRAINING_WH@OUR_FIRST_DATABASE.PUBLIC>SELECT CURRENT_WAREHOUSE();
+--------------------+
| CURRENT_WAREHOUSE() |
|--------------------|
| TRAINING_WH        |
+--------------------+
1 Row(s) produced. Time Elapsed: 0.290s
sreenivaskalahasti#TRAINING_WH@OUR_FIRST_DATABASE.PUBLIC>SELECT CURRENT_SCHEMA();
+------------------+
| CURRENT_SCHEMA() |
|------------------|
| PUBLIC           |
+------------------+
1 Row(s) produced. Time Elapsed: 2.137s
sreenivaskalahasti#TRAINING_WH@OUR_FIRST_DATABASE.PUBLIC>
```