Relational Databases: MySQL

# Installation

Is already pre-installed.

# Database Creation

Try to start MySQL client.

$ mysql

You will see an Access Denied error, because MySQL implicitly tries to use your Unix username (**cloudera** in our case), while doesn’t having one registered. Let’s proceed using Cloudera’s builtin root credentials.

$ mysql -uroot -pcloudera

Create a new database.

mysql> create database bedrock;

List all available databases.

mysql> show databases;

Switch to the created one.

mysql> use bedrock;

Create a table.

mysql> create table employee (name char(20), dept char(20), jobtitle char(20));

Show information about it.

mysql> describe employee;

+----------+----------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+----------+----------+------+-----+---------+-------+

| name | char(20) | YES | | NULL | |

| dept | char(20) | YES | | NULL | |

| jobtitle | char(20) | YES | | NULL | |

+----------+----------+------+-----+---------+-------+

3 rows in set (0.00 sec)

List all the tables in the current database.

mysql> show tables;

+-------------------+

| Tables\_in\_bedrock |

+-------------------+

| employee |

+-------------------+

1 row in set (0.00 sec)

Insert several employee records one-by-one.

mysql> insert into employee values ('Fred Flinstone','Quarry', 'Rock Digger');

mysql> insert into employee values ('Wilma Flinstone', 'Finance', 'Analyst');

mysql> insert into employee values ('Barney Rubble', 'Sales', 'Manager');

mysql> insert into employee values ('Betty Rubble', 'IT', 'Developer');

Now let’s try to add user **cloudera** and launch the client without specifying root credentials.

mysql> create user cloudera;

mysql> quit

$ mysql

Now there is no error, we are in the shell. Let’s try to use our bedrock database.

mysql> use bedrock;

Oops! We forgot to grant privileges on this database to our new user. Let’s fix it!

mysql> quit

$ mysql -uroot -pcloudera

mysql> grant all privileges on bedrock.\* to cloudera;

mysql> quit

$ mysql

mysql> use bedrock;

It works! Let’s perform several selects.

mysql> SELECT \* from employee;

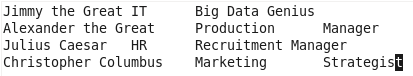
mysql> SELECT name FROM employee WHERE dept='Sales';

# Data Loading

Create a tab-delimited file load.tsv in your **cloudera**’s home directory. It should contain lines with tab-delimited fields for the bedrock.employee table. The number of tab delimited fields and their order must match the database ones. Example:

Betty Rubble IT Developer

Try to be original and input at least 4 lines of employee entries of your own choosing.  
Copy the contents of the file here:



Load the file data into the bedrock.employee table.

mysql> load data local infile 'load.tsv' into table employee;

Select full contents of the employee table and paste both query and execution results here:

