Installing MySQL and MySQL Workbench

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Installing MySQL

- Download MySQL from Oracle
 - Alternative for your own projects: You can get MariaDB, a split of MySQL or BerkeleyDB
 - Follow the instructions of the OS

Installation

- Need administrator privileges
- Download
 - Go to https://dev.mysql.com/downloads/installer/ and select according to Operating System
 - Create Oracle login
 - Follow instructions
 - Do NOT forget the password you are setting
 - On windows: Install as a service
- Add mysql to the path

Starting MySQL

- On MacOS: System Preferences has now a MySQL icon
 - Click on it and start services
- On Windows:
 - Open 'Run' Window by using Win key + R
 - Type 'services.msc'
 - Now search for MySQL service based on the version that is installed.
 - Click on 'stop', 'start' or 'restart' the service option.

Importing a Database

- Go to https://www.mysqltutorial.org/mysql-sampledatabase.aspx
- Download sample database
- Follow instructions

Python and MySQL

- There are different connectors
- Update your Python version
 - Then install a mysql connector
 - pip3 install mysql-connector-python

Installing MySQL Workbench

- Go to the Oracle download site and sign in
 - Install according to OS

SQL Work Bench

- Insure that your mysql server is running
 - MAC : System Preferences —> MySQL



SQL Work Bench

- Starting MySQL server through a terminal
 - Find mysql.server

```
heal/mycal/bin/ How to
                              support-files — -zsh — 80×24
Last login: Thu Jan 16 22:43:42 on ttys000
thomasschwarz@Peter-Canisius ~ % cd /usr/local/mysgl-8.0.19-macos10.15-x86 64/su
pport-files
[thomasschwarz@Peter-Canisius support-files % ls
mysgl-log-rotate
                        mysgl.server
                                                 mysgld multi.server
[thomasschwarz@Peter-Canisius support-files % mysgl.server start
zsh: command not found: mysql.server
[thomasschwarz@Peter-Canisius support-files % sudo ./mysql.server start
Password:
Sorry, try again.
Password:
Starting MySQL
.Logging to '/usr/local/mysgl/data/Peter-Canisius.local.err'.
. SUCCESS!
thomasschwarz@Peter-Canisius support-files %
```

- Open up SQL workbench
 - Select the SQL server (should be only one)

•••		MySQL Workbench	
	MySQL Connections ⊕ ⊗		Q Filter connections
	Local instance 3306		

SQL Work Bench

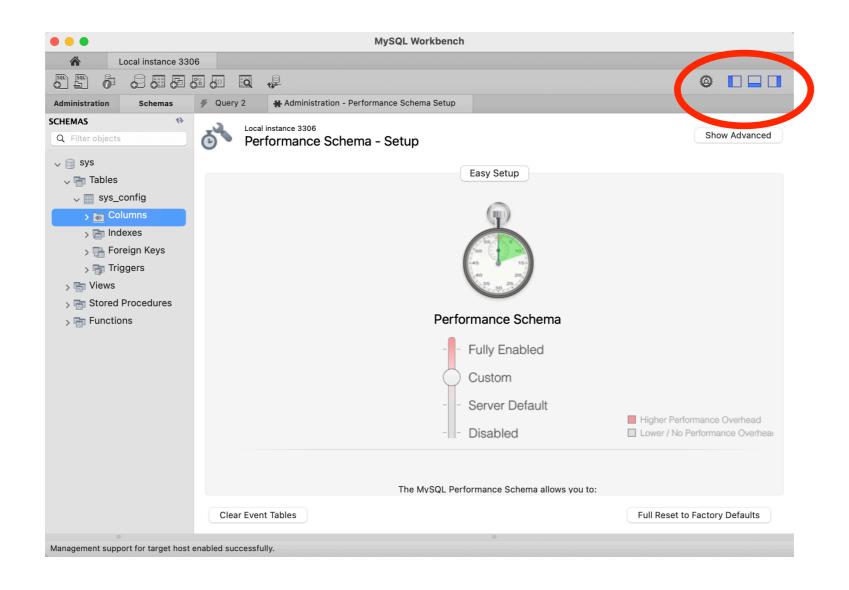
• If there is no server, click on the + sign and add it.

- Open up SQL workbench
 - Select the SQL server (should be only one)

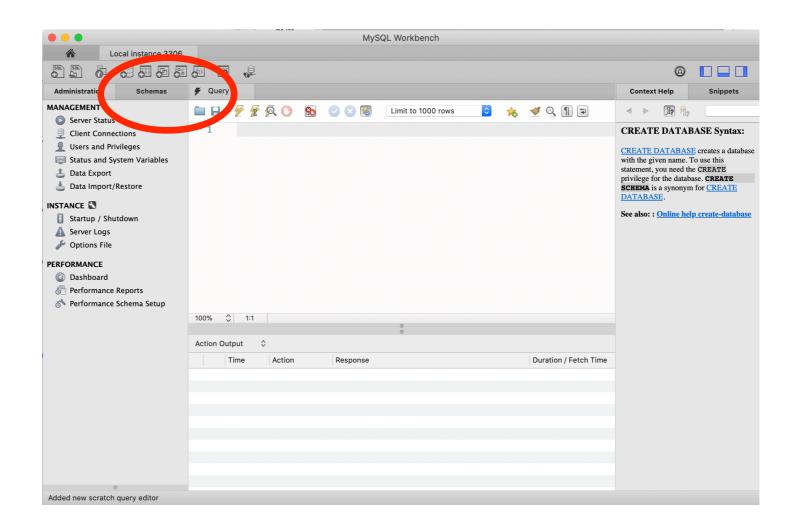


- The main page shows all existing connections
 - Since you just installed MySQL, there should only be one

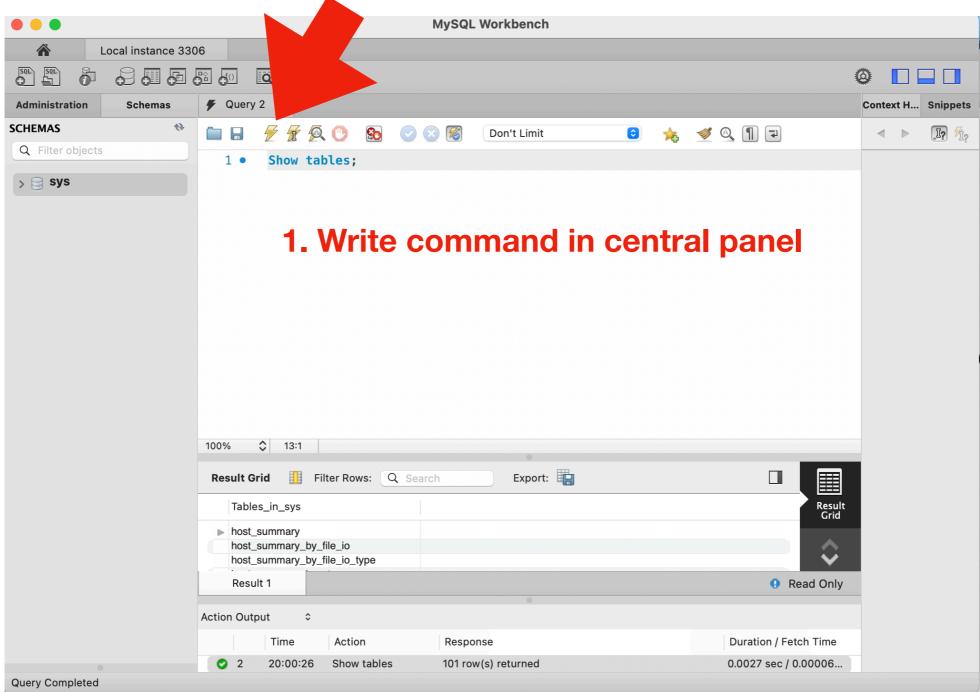
- Understanding the view
- Show left, right, down panel on the right



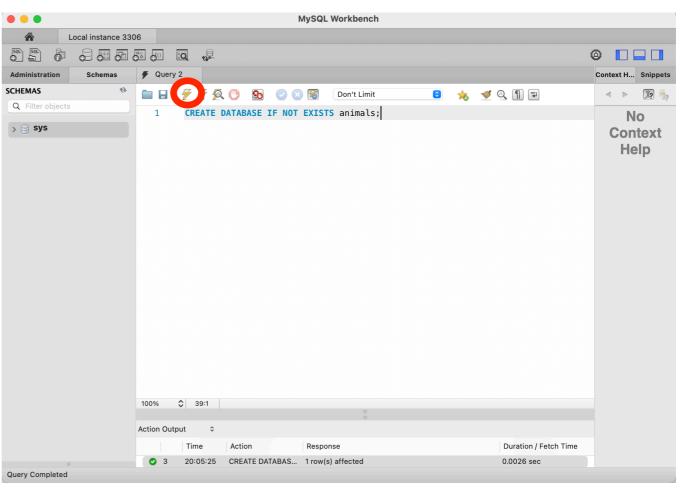
- Select Schemas
 - There should be at least one master scheme called sys



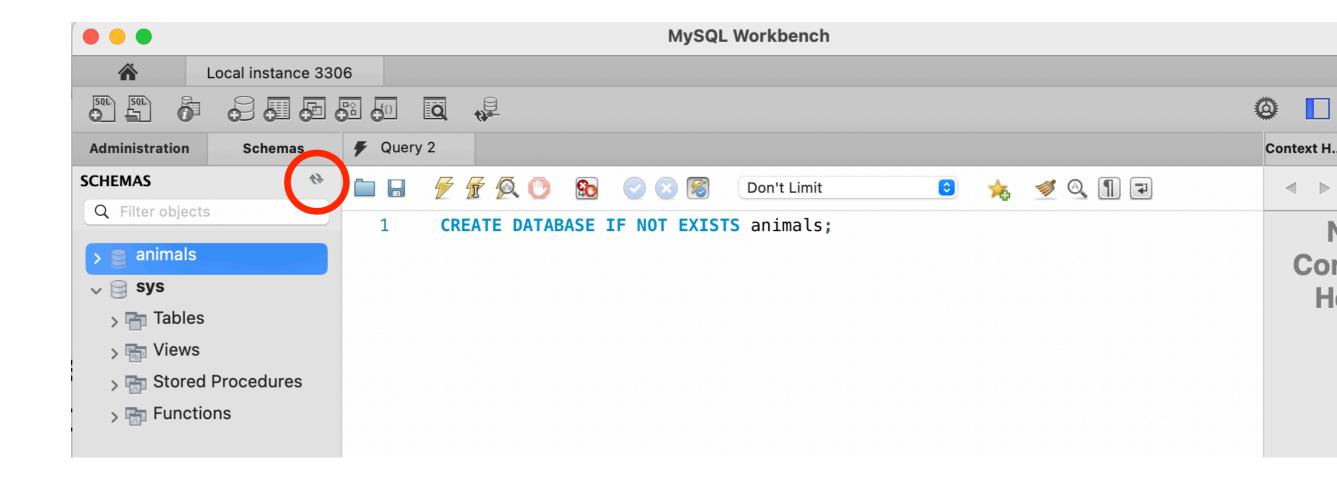
2. Click the flash symbol to execute



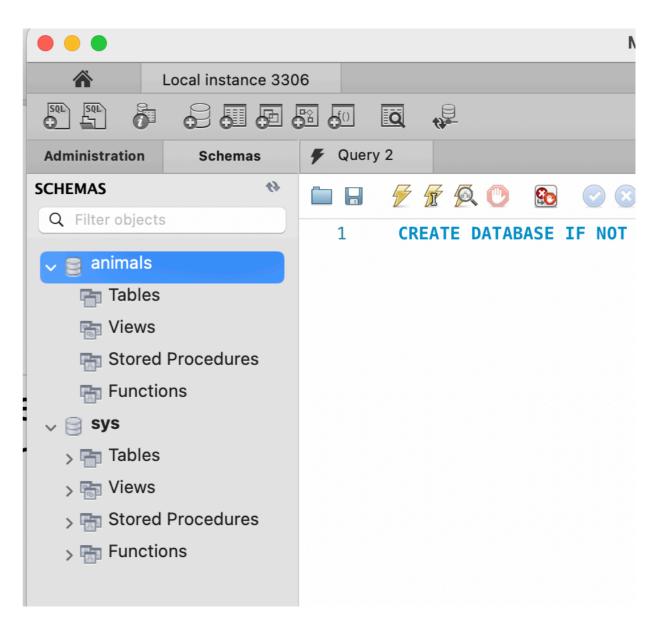
- In the middle panel, write:
 - CREATE DATABASE IF NOT EXISTS animals;
 - Then execute
 - Notice output



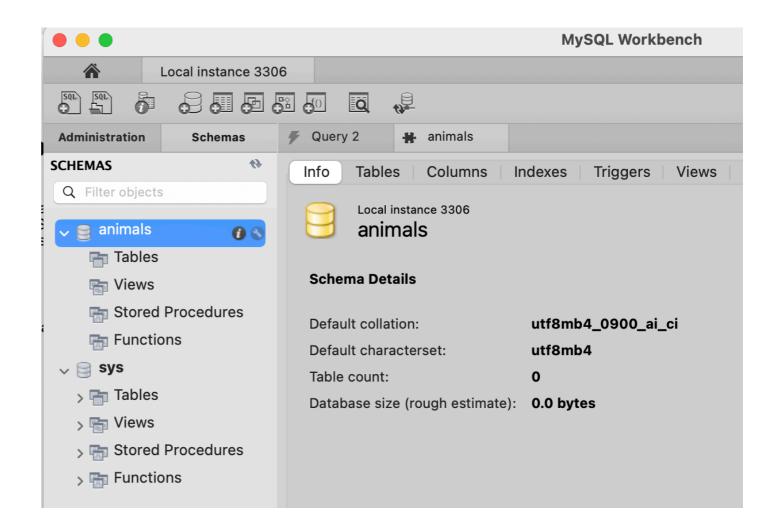
 After creating a database, need to update schemas in the upper right corner of the right panel



- There is more information on the schema in the right panel
- Just expand the name of the database



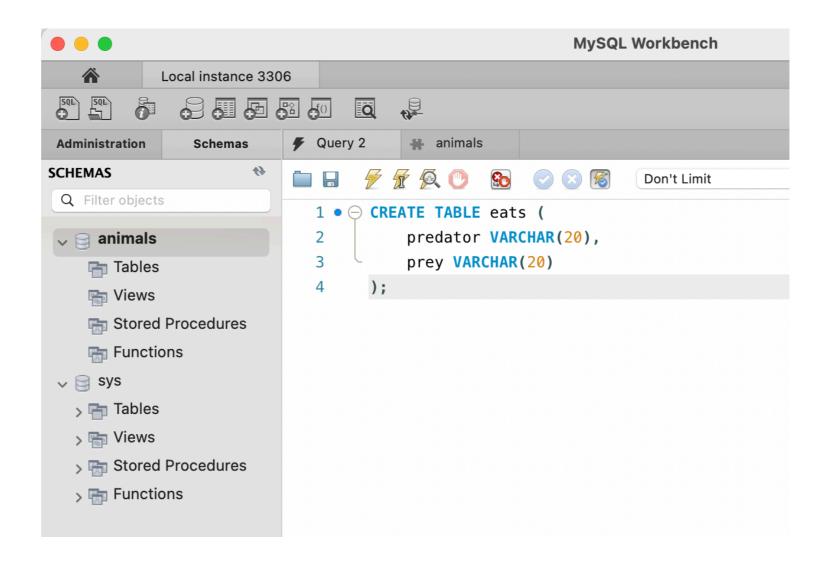
- Hover cursor over the name of the database
 - The information symbol (i) accesses more information



- Execute a query
 - USE animals;
- Now we can manipulate and use this database

MySQL Workbench							
Local instance 3306							
Administration Schemas	F Query 2 # animals	Context H Snippets					
SCHEMAS 🚸	🛅 🖬 🥖 🖉 🚱 📀 🛞 🐻 Don't Limit 💿 🤸 ダ 🔍 🖺 🖃	< > []? %]					
Q Filter objects	1	CREATE					
	2 • USE animals;	DATABASE					
🖶 Tables		Syntax:					
F Views		CREATE					
Stored Procedures		DATABASE creates a database with the					
Functions		given name. To use this statement, you					
√ 📄 sys		need the CREATE					
> 🖶 Tables		privilege for the database. CREATE					
> 🖶 Views		SCHEMA is a synonym for					

• Use queries to create a table

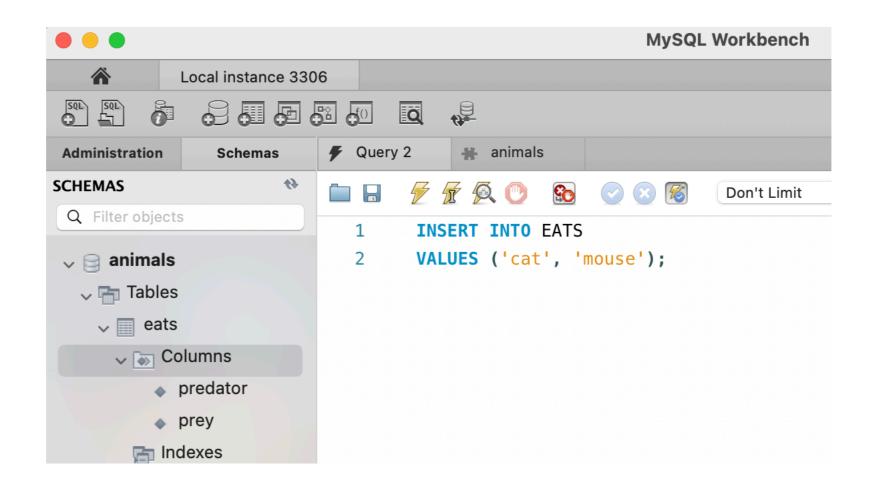


 After refreshing, we can find information about the new table by expanding the tab

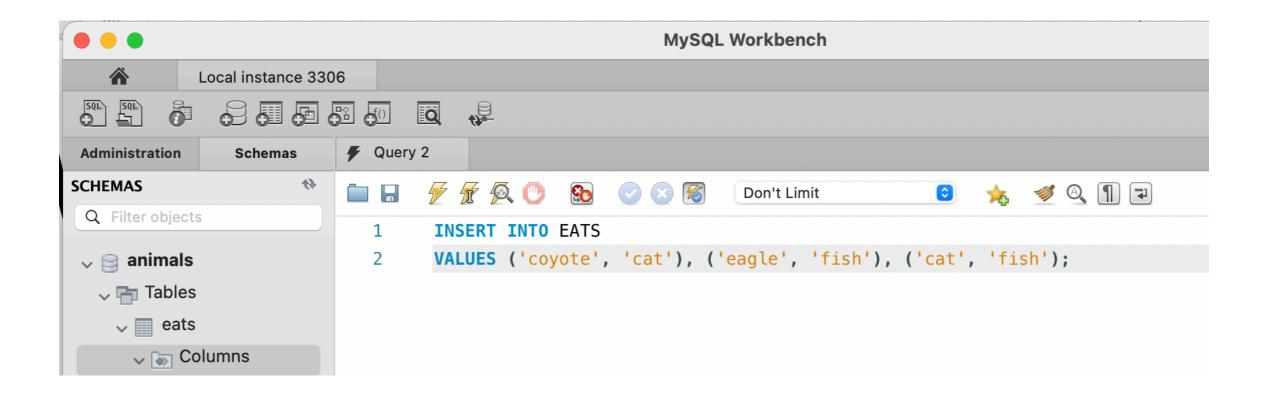
				MySQL	Workbench
Â	Local instance 330	6			
Administration	Schemas	F Query 2	🗰 animals		
SCHEMAS	43		f 👰 🕛 🔝	 S S 	Don't Limit
Q Filter objects		$1 \bullet \bigcirc$ CREATE TABLE eats (
√ ⊜ animals		2 predator VARCHAR(20),			
🗸 💼 Tables		3 prey VARCHAR(20)			
v 📰 eats		4);			
> 📷 Columns					
🕞 Indexes					
> 📑 Foreign Keys					
> 👘 Triggers					
🕞 Views					
Stored Procedures					
Functions					

- Referring to MYSQL objects
 - Use a default database
 - USE animals;
 - SELECT * FROM eats;
 - Use the dot notation to specify database
 - SELECT * FROM animals.eats;

• Inserting into a data base table:



• We can insert multiple records



- If you made a mistake, you can delete records
 - You might have to disable safe update mode
 - Preferences:

	Workbench Preferences		
General Editors SQL Editor Query Editor Object Editors SQL Execution Administration	Auto-save scripts interval: 10 seconds Interval to perform auto-saving of all open script tabs. The scripts will be restored from the last auto-saved version if Workbench unexpectedly quits. Create new tabs as Query tabs instead of File Restore expanded state of the active schema objects		
 ✓ Modeling Defaults MySQL Diagram Appearance 	Sidebar Sidebar Show Schema Contents in Schema Tree Show Metadata and Internal Schemas MySQL Session		
Fonts SSH Others	DBMS connection keep-alive interval (in seconds): 600 Time interval between sending keep- alive messages to DBMS. Set to 0 to not send keep-alive messages. The maximum amount of time the query		
	DBMS connection read timeout interval (in seconds): 30 can take to return data from the DBMS.Set 0 to skip the read timeout. DBMS connection timeout interval (in seconds): 60 Maximum time to wait before a connection attempt is aborted.		
	Other Internal Workbench Schema: .mysqlworkbench This schema will be used by MySQL Workbench to store information required for certain operations.		
	Safe Updates (rejects UPDATEs and DELETEs with no restrictions)		

• You can also issue a pseudo-query:

