MySQL Workbench Tutorial

Ron Mak

http://www.cs.sjsu.edu/~mak/

Department of Computer Engineering Department of Computer Science Department of Applied Data Science San Jose State University

February 1, 2020

Introduction

This tutorial introduces you to the use of the MySQL Workbench, a way to communicate with a MySQL database via a graphical user interface (GUI). You will use Workbench to query the Schools database named **aproposl_school** located on a MySQL database management server (DBMS) running on a remote web hosting site.

You may find it easier to start with the MySQL Shell and then move to the Workbench.

Installation

Go to <u>https://dev.mysql.com/downloads/</u> to download and install MySQL Workbench. If you would rather run the MySQL DBMS locally, then also download and install the MySQL Community Server, which is the free version of the DBMS.

Start the MySQL Workbench

To start the MySQL Workbench on MacOS, open it from the Applications folder (Figure 1).

To start the MySQL Workbench in Windows 10, first click the Windows icon in the lower left corner of your screen, scroll to **MySQL**, drop down the menu, and click on **MySQL Workbench** (Figure 2).



Figure 1. MySQL Workbench startup window on MacOS.



Figure 2. MySQL Workbench startup window in Windows 10.

Connect to the Remote Database

Click the \bigcirc next to **MySQL Connections**. In the **Setup New Connection** dialog box, enter the following:

Field	Entry
Connection Name	School
Hostname	apropos-logic.com
Username	aproposl_school
Password	school

Setup New Connection						
Connection Name:	School	Type a name for the connection				
Connection Method:	Standard (TCP/IP)	Method to use to connect to the RDBMS				
	Parameters SSL Advance	ed				
Hostname:	apropos-logic.com Port: 3306	Name or IP address of the server host - and TCP/ IP port.				
Username:	aproposl_school	Name of the user to connect with.				
Password:	Store in Keychain Clear	The user's password. Will be requested later if it's not set.				
Default Schema:		The schema to use as default schema. Leave blank to select it later.				
Configure Server	Management	est Connection Cancel OK				

Click the **Test Connection** button. If successful, you will see:



Click the **OK** button in this window, and then click the **OK** button in the **Setup New Connection** dialog box. The new remote database connection should now appear:

		MySQL Workbench					
	Walaama ta		× Morkbonch				
	welcome to	IVIYSQL					
	MySQL Workbench is the official graphical user interface (GUI) tool for MySQL. It allows you to design, create and browse your database schemas, work with database objects and insert data as well as design and run SQL queries to work with stored data. You can also migrate schemas and data from other database vendors to your MySQL database.						
	Browse Documentation >	Read the Blog >	Discuss on the Forums >				
	MySQL Connections ⊕ ⊗		Q Filter connections				
	School aproposl_school apropos-logic.com:3306						
Could not conn	ect to target database.						

MySQL Workbench		- 🗆 X				
School ×	A School ×					
File Edit View Query Databas	e Server Tools Scripting Help					
8 5 6 6 6 6		Ø 				
Navigator	Query 1 ×	SQLAdditions				
MANAGEMENT	🗀 🖬 🗲 🛣 👰 🕐 👧 🥥 🚳 🐻 Limit to 1000 rows 🔹 🔸 ┥ 🔍 🧻 🖃	◄ ▶ 🛐 🐬 Jump to				
 Server Status Client Connections Users and Privileges Status and System Variables Data Export Data Import/Restore 	1	Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.				
INSTANCE € Startup / Shutdown Server Logs ✓ Options File PERFORMANCE © Dashboard Ø Performance Reports Ø Performance Schema Setup Administration Schemas						
Information		Context Help Snippets				
No object school of	Output					
NO ODJECT SElected	□ Action Output •					
	# Time Action Message	Duration / Fetch				
Object Info Session						

Click on the **School** connection, and an SQL Editor window will open:

Click on the **Schemas** tab to see the database **aproposl_school**. You should be able to see the names of the tables:

📓 MySQL Workbench – 🗆 🗙					
School ×					
File Edit View Query Database	e Server Tools Scripting Help				
8 5 6 6 6 6			Ø I		
Navigator			SQLAdditions		
SCHEMAS 🚸	🗀 🖬 🕖 🛣 👰 🔘 🏡 🥥 🚳 🛛 📷 Limit to 1000 rows 🔹	· 🍌 ダ 🔍 🕦 🖃	◄ ▶ 🔄 🐴 Jump to ▼		
 Q Filter objects ♥ aproposi_school ♥ Tables ▶ Lass ▶ Lass ▶ Lakes ▶ Lakes ▶ Lakes ♥ Tabler ♥ Stored Procedures ♥ Functions 	1		Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.		
Administration Schemas					
Information	٢	>	Context Help Snippets		
No object selected	Output				
	Action Output				
Object lafe Service	f Time Action	Message	Duration / Fetch		

Enter SQL commands

It is easy to quickly see the contents of a table. For example, to see what's in the Class table, first select the table name, right-click (or, on a one-button Mac mouse, control-click), and choose the **Select Rows** menu item:



You will see the SQL query command **SELECT** * **FROM** aproposl_school.class and the table contents in the **Result Grid**:

📓 MySQL Workbench – 🗆 X							
School ×							
File Edit View Query Databa	se Server Tools Scripting Help						
8 8 6 8 8 8 8							
Navigator	Query 1 class ×	SQLAdditions					
SCHEMAS (%	🗀 📕 🗲 🖗 🧔 🕐 🛐 🗠 💿 🗐 Limit to 1000 rows 🔹 🖕 🕩 🔍 🛐 💷	◄ ▶ 1 19 1% Jump to					
Q. Filter objects	1 • SELECT * FROM aproposl school.class:						
		Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.					
Stored Procedures							
Administration Schemas	Result Grid Image: State Rooms Edit: Edit: Export/Import: Image: State Rooms Result ocd teacher_jd subject room 908 7008 Date structures 14 925 7003 Java programming 101 951 7012 Software engineering 210 974 7012 Operating systems 109 974 7012 Corpearing systems 109						
Information							
Inomation	dass 1 x Apply Revert	Context Help Snippets					
Table: class	Output						
Columns:	🗇 Action Output 👻						
Code AIDV teacher d int(10)UN subject varchar(45) room int(10)UN	# Time Action Message 1 20:51:56 SELECT * FROM aproposil_school.class LIMIT 0, 1000 5 row(s) returned	Duration / Ferch 0.062 sec / 0.000 sec					
Object Info Session							

•••	MySQL Workbench						
*	School						
	- 	6 0					◎ □ □ □
Administration	Schemas	🗲 cla	ISS				
SCHEMAS	13		1	🙊 🕐 🚯 🕝 😣 🗃	Limit to 1000 rows	🏡 🕑 Q. 🖺 🖃	
Q Filter object	S	1	SELEC	T * FROM aproposl_scho	ol.class;		
✓ aproprint apropriation of the second s	Load Spatial Data Set as Default Sch Filter to This Scher Schema Inspector Table Data Import	ema ma Wizard					
▶ 🔲 ta	Copy to Clipboard	•	37:1				
▶ 🔲 te	Send to SQL Editor	r 🕨			• •		
🚡 View	Create Schema		rid	Subject room	Edit: 📶 📆 🕁 E:	xport/Import: 🛛 🕁	
📅 Func			7008	Data structures 114			Grid
	Drop Schema		7051	Compilers 222			
	Search Table Data.		7012 7012	Software engineering 210 Operating systems 109			Form Editor
	Refresh All		NULL	NULL			\diamond
	class 2						Apply Revert
		Action	Output :	<u>`</u>	0		
		Action	Time	Action	Pesponse		Duration / Eetch Time
		O 1	21:25:53	SELECT * FROM aproposl_sch	ool.class LIMIT 5 row(s) returned		0.059 sec / 0.00000
Owen Complete	0						
Query Complete	d						

Right-click the database name aproposl_school and select Set as Default Schema:

Now you can enter and edit arbitrary SQL commands without needing to explicitly name the database in the commands. After entering a command, click the yellow lightning bolt \swarrow above the command to tell Workbench to execute it:



MySQL Workbench documentation: https://dev.mysql.com/doc/workbench/en/