SQL

FAQ

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Preface

IMPORTANT – PLEASE DON'T SKIP THIS PART!

Here we will describe the process you need to go through whenever you encounter an error in programming. Please read the following two pages carefully, as they will surely save you a lot of time and effort in the long run!

A general note on problem-solving

Even the best programmers out there find it nearly impossible to successfully create the complex code that delivers the desired output the first time they write it. So, we can say coding is all about trying, stumbling upon an error, reading the obtained error message, finding a solution, and then applying it. Over and over again. In fact, this process is repeated infinitely.

Therefore, as a programmer, you need to develop the skill to quickly and efficiently identify and solve problems that occur while you are coding.

What should I do when I encounter a coding error?

With this question in mind, we will take you through the steps you should follow each time you encounter an error:

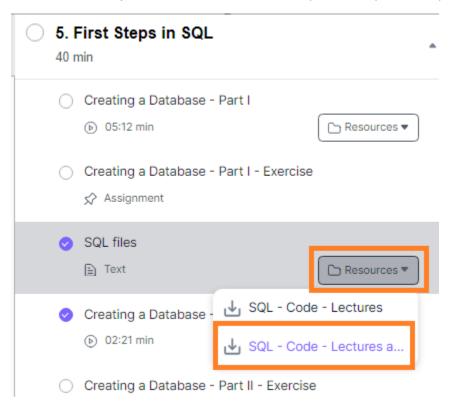
- 1) Read the error message carefully.

 Every time you make a mistake, you will obtain an error message. Sometimes, this message will be quite specific; you will be able to immediately spot the mistake and correct it. Other times, though, it will sound more general. Then, it will be your job to find where the error stems from.
- 2) If you encounter an error while you are replicating code you've seen in a lecture, please re-watch that video or at least the parts about the query you are trying to execute. Remember that every symbol and letter could make a difference! So don't overlook the details they might be the exact cause of this error!
- 3) If the error occurs while you are trying to solve an exercise, please carefully check the files containing the corresponding solution.
- 4) In some situations, however, the 3 steps described above may not help. Or... you may still have a question, even though you've managed to solve the error. In that case, please search through the existing threads in the Q&A section. If you can't find the answer to your question, you can post a new one there, and we'll be happy to help.

How can I speed up the process of solving the encountered problems?

While coding in MySQL, keep the following two files open, as they may contain the answers you are looking for.

1) The SQL - Code - Lectures and Task Solutions.sql file. You can find it in the resources section of Section 5: SQL files and use Workbench to keep this file open in a separate tab.



2) This FAQ sheet.

In both files, 1) and 2), use Ctrl + F to find a keyword related to the problem you are trying to solve quickly.

Use the FAQ sheet, the Q&A, and best of luck on your learning journey!

How can I uninstall MySQL (Server + Workbench)?

Keywords: uninstall, MySQL, Server, Workbench, Windows

Q&A thread for reference:

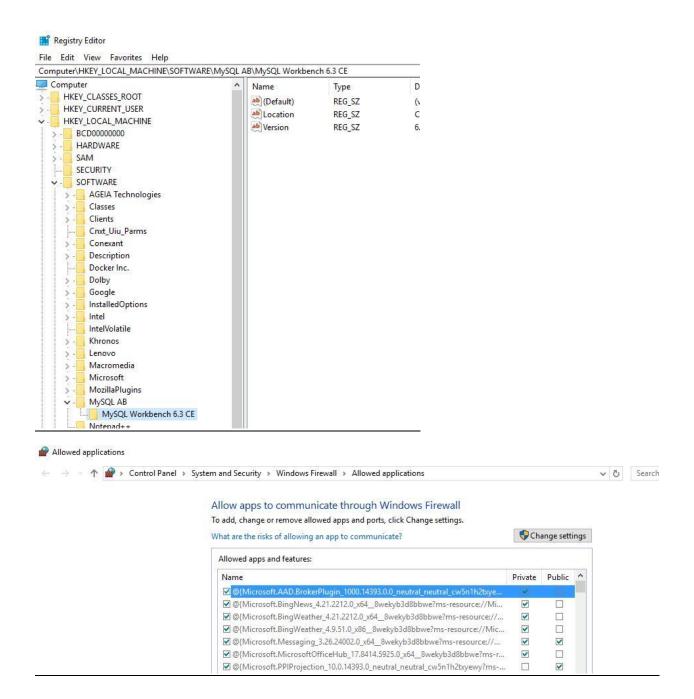
https://learn.365datascience.com/question/how-can-i-uninstall-mysgl-server-workbench/

ANSWER

To remove MySQL Workbench and Server from your Windows computer, you need to go through the following 4 steps (with no exception). Make sure you complete all of them to finish the operation successfully:

- 1) Uninstall MySQL from Control Panel/Programs and Features
- 2) Uninstall MySQL from the start menu/Firewall/Allow an App through Windows Firewall (if found there)
- 3) Remove all files from drive C:/ProgramData/MySQL (if this folder is hidden on your computer, you could search for **%programdata%** in the start menu)
- 4) Remove all files from the Windows registry. To complete this step, you need to search for *regedit* in the start menu. Then, remove all files from the MySQL folder in the *regedit* editor.

You must complete all steps from 1) to 4) before you can restart your computer and retry installing the MySQL Workbench and Server again.



How can I recover the root password/RESET the password/ create a new password?

Keywords: password, recover, reset, create, new

Q&A thread for reference:

https://learn.365datascience.com/question/how-can-i-recover-the-root-password-reset-the-password_create-a-new-password/

ANSWER

For Windows users:

There's one extremely important thing to remember during the installation process, and it is the password you are going to set!

Although it is possible to change it later, it might not be the easiest thing to do. In such occasions, reinstallation of the software could sometimes be the quickest option.

Basically, if you need to reset your password, it's best to read through *Section B.4.3.2.1* from the following link:

https://dev.mysql.com/doc/refman/8.0/en/resetting-permissions.html

There, you will find a seven-step process provided by the creators of the software, so it is as good as it can be.

Remember that if you find it too complicated or there's something that doesn't work as indicated in the steps, you could uninstall MySQL completely, and install it again, this time remembering your password.

If it comes down to the point of uninstalling MySQL on Windows, here is a link that describes the 4 steps you should go through to do that (i.e. to remove the program from your computer completely).

<u>Uninstalling MySQL (Server + Workbench)</u>

For Mac users:

Execute the following commands:

1) sudo /usr/local/mysql/support-files/mysql.server stop to stop the server if it is running.

2) sudo mysqld_safe --skip-grant-tables to start the server in safe mode.

Then, open a new terminal and try the following commands.

3) mysql -u root to log in without a password.

4)

FLUSH PRIVILEGES;

ALTER USER 'root'@'localhost' IDENTIFIED BY '<YourNewPass>'; to update the user's password

and

5) sudo /usr/local/mysql/support-files/mysql.server start to start the server.

Installation stops at "Starting Server" Configuration Step. What can I do?

Keywords: install, configuration step, 'starting server'

Q&A thread for reference:

https://learn.365datascience.com/question/installation-stops-at-starting-server-configuration-step-what-can-i-do/

ANSWER

Failure to execute configuration steps during installation may result from the following problems:

- 1) Incompatibility between your Windows Operating System and the version of Workbench you have installed (for instance, if your computer is X86 but you are trying to install X64, you may encounter such issues).
- 2) Failing to properly clean the MySQL files from the registry of your computer after an unsuccessful attempt to install Workbench. Please refer to the following explanation of this problem.

<u>Uninstalling MySQL (Server + Workbench)</u>

Configuration stops at "Initializing Database". How can I fix this?

Keywords: install, configuration, initializing database

Q&A thread for reference:

https://learn.365datascience.com/question/configuration-stops-at-initializing-database-how-can-i-fix-this/

ANSWER

Please open the **my.ini** configuration file that should be found in the following folder:

"C:\ProgramData\MySQL\MySQL Server <version>\my.ini"

Then, open the file and at the end, add the phrase **lower_case_table_names=1** (or, if it is already there but it equals a different value, set it up to equal 1).

Finally, save the file and try installing MySQL again.

How can I Download MySQL Server and Workbench on a Mac?

Keywords: install, Mac, macOS, MySQL, Server, Workbench

Q&A thread for reference:

https://learn.365datascience.com/question/how-can-i-download-mysql-server-and-workbench-on-a-mac/

Lecture for reference:

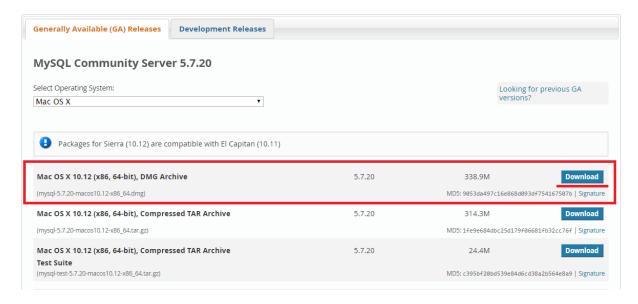
https://learn.365datascience.com/courses/sql/installing-mysql-on-macos-and-unix-systems/

ANSWER

Basically, the installation of MySQL Workbench on a Mac differs from the installation process on Windows. In case the instructions we've provided so far haven't been helpful, here's an alternative solution which involves no actual installer. You just need to download two DMG Archive files, and then use them to install the program.

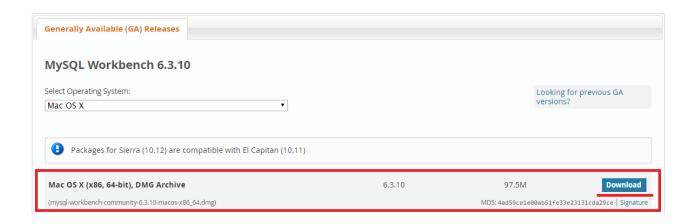
From this link, https://dev.mysql.com/downloads/mysql/,

you need to download a Community Server that is for the Mac OS X operating system.



Then, from this link, https://dev.mysql.com/downloads/workbench/,

download the only DMG Archive file available.



After you have installed them, open the first DMG Archive and follow the instructions.

Please remember any passwords you create or see on the way, as you will need them when starting the MySQL server.

ROLLBACK doesn't work. How can I solve this problem?

Keywords: ROLLBACK

Q&A thread for reference:

https://learn.365datascience.com/question/rollback-doesn-t-work-how-can-i-solve-this-problem/

Lecture for reference:

https://learn.365datascience.com/courses/sql/the-update-statement-part-i/

ANSWER

There are very few reasons that could lead to this problem. We believe there is a setting that, for some reason, has been switched on or off, and that's what causes the issue here.

In the SQL editor of MySQL Workbench, there is the possibility to toggle the *autocommit mode* by pressing a single button. This is the third of the three icons seen in the red rectangle. If you've pressed this button, it means that this mode will be turned on, and each statement will be committed immediately.



Please check if it has been left intact and you can see the three icons within the red rectangle in color, just as it is shown in the picture above.

(When the button has been pressed, the *autocommit mode* will be toggled on, and the tick and the X button will probably appear grey.



If this is the case, please toggle off the *autocommit* button by pressing the third of the icons to see the tick and the X button in blue again.)





Why do I get Error Code: 1452: Cannot Add or Update Child Row: INSERT record 999903?

Keywords: Error Code: 1452, update, child row, insert

Q&A thread for reference:

https://learn.365datascience.com/question/why-do-i-get-error-code-1452/

Lecture for reference:

https://learn.365datascience.com/courses/sql/the-insert-statement-part-ii/#assignment

ANSWER

Please stick to our general request to execute all code you see in the lectures and the exercises, in the given order. Doing this will prevent you from encountering some errors, such as this one – Error Code: 1452.

REASON FOR THE ERROR:

This error appears if you have already created another table, *employees*, where you have *missed* inserting data about the individual with id 999903. The relationship you have established between *employees* and *dept_emp* requires that you first insert a record in *employees*, and then insert a (related) record in *dept_emp*.

ON DELETE CASCADE means that if you remove record 999903 from *employees*, record 999903 will automatically be removed from *dept_emp* as well.

In brief, make sure the relationship between *employees* and *dept_emp* is valid and 999903 exists in *employees* so that you don't get the same error the next time you try inserting 999903 in *dept_emp*.

SOLUTION:

As explained in the article preceding this video, double-check if you've first inserted information about employee number 999903 in the *employees* table. Only then you should proceed with inserting information in the *titles* and *dept emp* tables.

What does the minus sign (-) mean in ORDER BY -a.emp_no DESC;

Keywords: ORDER BY, minus sign, -

Q&A thread for reference:

https://learn.365datascience.com/question/what-does-the-minus-sign-mean-in-order-by-a-emp-no-desc/

Lecture for reference:

https://learn.365datascience.com/courses/sql/union-vs-union-all/#assignment

ANSWER

1) ORDER BY a.emp_no DESC;

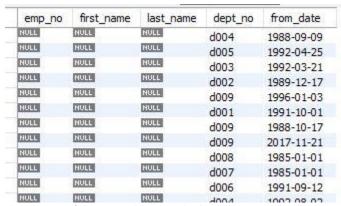
If you end the relevant query this way, you will obtain an output ordered with the highest employee number on top, the lowest employee number down the list, and the null values at the end.

emp_no	first_name	last_name	dept_no	from_date
499371	Nagui	Denis	NULL	NULL
498827	Yugun	Denis	NULL	NULL
498819	Kerhona	Denis	NULL	NULL
496457	Jagoda	Denis	NULL	NULL
492928	Martien	Denis	NULL	NULL
491874	Debaprosad	Denis	NULL	NULL
491562	Ewina	Denis	NULL	NULL
491073	Mechthild	Denis	NULL	NULL
489714	Hairong	Denis	HULL	NULL
485433	Hirovasu	Denis	NULL	NULL
481393	Tsuneo	Denis	NULL	NULL
480886	Shietuna	Denis	NULL	NULL
49004E	Food	Donis	NULL	NULL

the top part of the output has been displayed

ORDER BY a.emp_no ASC;

This ending of the query will do the opposite - the null values will be on top, and then the employee numbers will grow from the lowest to the highest.

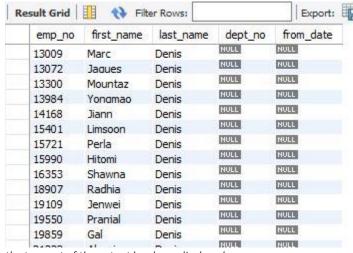


the top part of the output has been displayed

For options 3) and 4), remember that using ORDER BY followed by a minus sign works for numeric data only!

3) ORDER BY -a.emp_no DESC;

Using this code, you will first order the employees from the lowest to the highest number, and then leave the null values at the end.



the top part of the output has been displayed

4) ORDER BY -a.emp_no ASC;

Following the logic explained so far, this ending would list the null value first, and will then order all employees from the highest to the lowest number.

emp_no	first_name	last_name	dept_no	from_date
NULL	HULL	NULL	d004	1988-09-09
NULL	NULL	NULL	d005	1992-04-25
NULL	HULL	NULL	d003	1992-03-21
NULL	HULL	NULL	d002	1989-12-17
NULL	HULL	HULL	d009	1996-01-03
NULL	NULL	HULL	d001	1991-10-01
NULL	HULL	NULL	d009	1988-10-17
NULL	NULL	NULL	d009	2017-11-21
NULL	NULL	NULL	d008	1985-01-01
NULL	NULL	HULL	d007	1985-01-01
HULL	HULL	NULL	d006	1991-09-12
NULL	HULL	HULL	d004	1992-08-02
NULL	HULL	HULL	d006	1985-01-01
NULL	NULL	NULL	d004	1985-01-01

the top part of the output has been displayed

Depending on the situation, you may choose between 1), 2), 3), and 4). We think 3) suits our example best. That's why we have ended the query with ORDER BY -a.emp_no DESC;

Why would using a minus sign in such a situation be useful at all?

Specifically, the combination used in 3) is a frequently used technique because it allows the user to sort their output in ascending order, without starting with a (sometimes large) number of null values. In other words, if the user prefers to see the null values at the end of the output, using ORDER BY -a.emp_no DESC; is a very convenient choice.

Why does it work that way?

This is simply a peculiarity of the SQL syntax, and we must always comply with it.