

MySQL Cheat Sheet

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What is MySQL?

MySQL is an open-source relational database management system (RDBMS) known for its fast performance and reliability. Developed by Oracle Corporation, it's widely used for web applications and online gaming.

Sample Data

The dataset contains details of the world's highest airport hubs, measured by passenger traffic. Each row contains the location and the total in airport transactions.

Location	Passenger_ytd	Intl_Passenger_ytd	Domestic_Passenger_ytd	Season	Airports
Los Angeles	441	321	120	Summer	Los Angeles International
Chicago-Midway	385	251	134	Summer	Chicago-Midway
Denver	341	241	100	Summer	Denver
San Francisco	331	241	90	Summer	San Francisco International
Atlanta	326	21	305	Summer	Atlanta
New York-JFK	321	251	70	Summer	New York-JFK

Querying tables

Get all the columns from a table using `SELECT *`

```
SELECT *
FROM Transactions;
```

Get a column from a table by name using `SELECT col`

```
SELECT Passenger
FROM Transactions;
```

Get multiple columns from a table by name using `SELECT col1, col2`

```
SELECT Passenger, Domestic_Passenger
FROM Transactions;
```

Get the column names with `SELECT col1, col2, col3, ...`

```
SELECT Passenger, Domestic_Passenger, Intl_Passenger
FROM Transactions;
```

Arrange the rows in ascending order of values in a column with `ORDER BY col`

```
SELECT Passenger, Domestic_Passenger
FROM Transactions
ORDER BY Domestic_Passenger;
```

Arrange the rows in descending order of values in a column with `ORDER BY col DESC`

```
SELECT Passenger, Intl_Passenger
FROM Transactions
ORDER BY Intl_Passenger DESC;
```

Get the number of rows returned with `COUNT(*)`

```
SELECT *
FROM Transactions;
-- 6
```

Get unique values with `SELECT DISTINCT`

```
SELECT DISTINCT Season
FROM Transactions;
```

Filtering Data

Filtering on numeric columns

Get rows where a column is greater than a value with `WHERE col > val`

```
SELECT Passenger, Domestic_Passenger
FROM Transactions
WHERE Domestic_Passenger > 100;
```

Get rows where a column is greater than or equal to a value with `WHERE col >= val`

```
SELECT Passenger, Domestic_Passenger
FROM Transactions
WHERE Domestic_Passenger >= 100;
```

Get rows where a column is less than a value with `WHERE col < val`

```
SELECT Passenger, Domestic_Passenger
FROM Transactions
WHERE Domestic_Passenger < 100;
```

Get rows where a column is equal to a value with `WHERE col = val`

```
SELECT Passenger, Domestic_Passenger
FROM Transactions
WHERE Domestic_Passenger = 100;
```

Get rows where a column is not equal to a value with `WHERE col != val` or `WHERE col <> val`

```
SELECT Passenger, Domestic_Passenger
FROM Transactions
WHERE Domestic_Passenger != 100;
```

Get rows where a column is between two values (inclusive) with `WHERE col BETWEEN val1 AND val2`

```
SELECT Passenger, Domestic_Passenger
FROM Transactions
WHERE Domestic_Passenger BETWEEN 100 AND 200;
```

Filtering on text columns

Get rows where text is equal to a value with `WHERE col = 'val'`

```
SELECT Passenger, Airport_Location
FROM Transactions
WHERE Airport_Location = 'Los Angeles';
```

Get rows where text is one of several values with `WHERE col IN ('val1', 'val2', ...)`

```
SELECT Passenger, Airport_Location
FROM Transactions
WHERE Airport_Location IN ('Los Angeles', 'San Francisco');
```

Get rows where text contains specific values with `WHERE col LIKE 'pattern'`
% - wildcard for characters

```
SELECT Passenger, Airport_Location
FROM Transactions
WHERE Airport_Location LIKE 'Los %';
```

Filtering on multiple columns

Get the rows where one condition and another condition hold with `WHERE col1 AND col2`

```
SELECT Passenger, Domestic_Passenger, Intl_Passenger
FROM Transactions
WHERE Domestic_Passenger > 100 AND Intl_Passenger > 50;
```

Get the rows where one condition or another condition holds with `WHERE col1 OR col2`

```
SELECT Passenger, Domestic_Passenger, Intl_Passenger
FROM Transactions
WHERE Domestic_Passenger > 100 OR Intl_Passenger > 50;
```

Filtering on missing data

Get rows where there are missing with `WHERE col IS NULL`

```
SELECT Passenger, A_Airport
FROM Transactions
WHERE A_Airport IS NULL;
```

Get rows where there are not missing with `WHERE col IS NOT NULL`

```
SELECT Passenger, A_Airport
FROM Transactions
WHERE A_Airport IS NOT NULL;
```

Aggregating Data

Simple aggregations

Get the total number of rows with `SELECT COUNT(*)`

```
SELECT COUNT(*)
FROM Transactions;
```

Get the total value of a column with `SELECT SUM(col)`

```
SELECT SUM(Domestic_Passenger)
FROM Transactions;
```

Get the mean value of a column with `SELECT AVG(col)`

```
SELECT AVG(Domestic_Passenger)
FROM Transactions;
```

Get the maximum value of a column with `SELECT MAX(col)`

```
SELECT MAX(Domestic_Passenger)
FROM Transactions;
```

Get the minimum value of a column with `SELECT MIN(col)`

```
SELECT MIN(Domestic_Passenger)
FROM Transactions;
```

Grouping, filtering, and sorting

Get summary grouping values with `SELECT BY col`

```
SELECT Season, COUNT(*)
FROM Transactions
GROUP BY Season;
```

Get summary grouping values in order of columns with `ORDER BY col1, ORDER BY col2, ...`

```
SELECT Airport_Location, COUNT(Airport_Location) AS total_passenger
FROM Transactions
ORDER BY Airport_Location
ORDER BY total_passenger DESC;
```

Get rows where text is a group that is filtered with `WHERE BY col, HAVING clause`

```
SELECT Airport_Location, COUNT(Airport_Location) AS total_passenger
FROM Transactions
WHERE Airport_Location
WHERE BY total_passenger > 50;
```

Filter values on the grouping with `WHERE (col1, col2) GROUP BY col, HAVING clause, where`

```
SELECT Airport_Location, COUNT(Airport_Location) AS total_passenger
FROM Transactions
WHERE season = 'The best Summer Season'
ORDER BY Airport_Location
ORDER BY total_passenger DESC
WHERE total_passenger > 50;
```

MySQL-Specific Syntax

Not all code works in every version of MySQL. The following examples work in MySQL 5.6 and are guaranteed to work in other versions.

Get the number of rows returned after filtering with `COUNT(*)` or `count()`

```
SELECT *
FROM Transactions;
-- 6, 6
```

By default, MySQL uses row numbers starting at 0 with `ROWNUM`.

```
SELECT *
FROM Transactions;
-- Row 1: The best Summer Season
```

Get row numbers starting with `ROWID` (MySQL 5.6+)

```
SELECT *
FROM Transactions;
-- Row 1: The best Summer Season
```

Get the sorted rows with `ORDER BY()` and the sorted grouping with `ORDER BY()` or `ORDER BY()`

```
SELECT MAX(PASS), MAX(INTL_PASS)
FROM Transactions;
```

Get unique values with `DISTINCT`

```
SELECT Season;
```

MySQL Reference Guide

Michael Kofler



Mysql Reference Guide:

MySQL Reference Manual Michael Widenius, David Axmark, MySQL AB, 2002 This comprehensive reference guide offers useful pointers for advanced use of SQL and describes the bugs and workarounds involved in compiling MySQL for every system

MySQL Reference Manual David Axmark, 1995 *MySQL Reference Manual* Kaj Arno, 2005 [MySQL Administrator's Guide and Language Reference](#) MySQL AB, 2006-04-27 Written by the creators of MySQL and edited by one of the most highly respected MySQL authors the MySQL Administrator's Guide and Language Reference is the official guide to installing MySQL to setting up and administering MySQL databases and to storing and retrieving data in these databases This new edition combines into one book the MySQL Language Reference on CD with the practical information of the MySQL Administrator's Guide book **MySQL to DB2 Conversion Guide** Whei-Jen Chen, Angela Carlson, IBM

Redbooks, 2009-12-01 Switching database vendors is often considered an exhausting challenge for database administrators and developers Complexity total cost and the risk of downtime are often the reasons that restrain IT decision makers from starting the migration project The primary goal of this book is to show that with the proper planning and guidance converting from MySQL to IBM DB2 is not only feasible but straightforward If you picked up this book you are most likely considering converting to DB2 and are probably aware of several of the advantages of converting to DB2 data server In this IBM Redbooks publication we discuss in detail how you can take advantage of this industry leading database server This book is an informative guide that describes how to convert the database system from MySQLTM 5.1 to DB2 V9.7 on Linux and the steps that are involved in enabling the applications to use DB2 instead of MySQL This guide also presents the best practices in conversion strategy and planning conversion tools porting steps and practical conversion examples It is intended for technical staff that is involved in a MySQL to DB2 conversion project *MySQL Reference Manual*, 2002 [MySQL Language Reference](#) MySQL AB., 2005

With more than 4 million active installations MySQL is the world's most popular open source database Known for its speed high reliability and ease of use MySQL is rapidly becoming a low cost alternative to high priced high maintenance database systems from Oracle IBM and Microsoft and it already has more users than any of these more established proprietary databases The MySQL Language Reference is the only official guide to the MySQL language and programming APIs Written by the creators of MySQL and edited by the highly respected MySQL authors the MySQL Language Reference is designed for database administrators and programmers who need a reliable detailed reference to every part of the MySQL language and all the available APIs **Julia 1.0 Programming Complete Reference Guide** Ivo

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Beginning Database-Driven Application Development in Java EE Yuli Vasiliev, 2009-04-21 Beginning Database Driven Application Development in Java™ EE Using GlassFish™ focuses on the open source GlassFish persistence engine This book shows Java programmers how to develop applications utilizing relational database technologies with examples using Oracle and MySQL and the GlassFish application development framework and deployment platform all based on Java EE The book explains in detail how you can organize your Java EE solution into a multilayer architecture placing most emphasis on how to implement the persistence and database tiers of an application Through many examples this book shows how you can efficiently use the Java Persistence features available in the Java EE platform Find out how you can greatly simplify the task of building the persistence layer of your Java EE application by moving some application logic into the underlying database utilizing database views stored programs and triggers The book

also explains how to deploy Java EE applications to GlassFish a free open source Java EE 5 compliant application server

Databases in Networked Information Systems Subhash Bhalla,2000-11-22 This book constitutes the refereed proceedings of the International Workshop on Databases in Networked Information Systems DNIS 2000 held in Aizu Japan in December 2000 The 17 revised full invited and selected papers have been carefully reviewed for inclusion in the book The papers are organized in topical sections on data management systems database systems storage and retrieval and networked information systems applications

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MySQL Reference Dan H. Wilder,2002 Written by database specialist Dan Wilder the 16 page MySQL Reference card serves as a comprehensive reference guide to the MySQL database and is appropriate for beginners as well as advanced users Some of the topics covered include Configuration Command line client Definitions as well as many others

MySQL John Horn (Ph.D.),2004 Get step by step instruction from installing MySQL manipulating it and basic reporting to advanced reporting interfacing programs and backups

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The Definitive Guide to MySQL 5 Michael Kofler,2005 MySQL 5 due to be released in summer 2005 is slated to be the most significant release in the product s history The Definitive Guide to MySQL 5 Third Edition is the first book to offer in depth instruction on the new features This book shows readers how to connect to MySQL via all of the major APIs including PHP Perl Java JSP and C Novice and intermediate database administrators are introduced to both MySQL s key features and crucial database management concepts by way of real world examples such as discussion forums online polls and other data administration projects

Murach's MySQL Joel Murach,2015 This practical hands on tutorial reference guide to MySQL is perfect for beginners but it also works for experienced developers who are not getting the most from MySQL As you would expect this book shows how to code all of the essential SQL statements for creating and working with a MySQL database But beyond that this book also shows how to design a database including how to use the graphical MySQL Workbench to create an EER model It shows how to take advantage of relatively new MySQL features such as foreign keys transactions stored procedures stored functions triggers and events It even presents a starting set of skills for a database administrator DBA including how to secure and back up databases And like all Murach books it uses the distinctive paired pages format which breaks the material into manageable skills to speed up both learning and reference A great help for MySQL users at any level

Subject Guide to Books in Print ,1991

The British National Bibliography Arthur James Wells,2007

Mysql Reference Guide Book Review: Unveiling the Power of Words

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Table of Contents Mysql Reference Guide

1. Understanding the eBook Mysql Reference Guide
 - The Rise of Digital Reading Mysql Reference Guide
 - Advantages of eBooks Over Traditional Books
2. Identifying Mysql Reference Guide
 - Exploring Different Genres
 - Considering Fiction vs. Non-Fiction
 - Determining Your Reading Goals
3. Choosing the Right eBook Platform
 - Popular eBook Platforms
 - Features to Look for in an Mysql Reference Guide
 - User-Friendly Interface
4. Exploring eBook Recommendations from Mysql Reference Guide
 - Personalized Recommendations
 - Mysql Reference Guide User Reviews and Ratings
 - Mysql Reference Guide and Bestseller Lists
5. Accessing Mysql Reference Guide Free and Paid eBooks

- Mysql Reference Guide Public Domain eBooks
- Mysql Reference Guide eBook Subscription Services
- Mysql Reference Guide Budget-Friendly Options
- 6. Navigating Mysql Reference Guide eBook Formats
 - ePub, PDF, MOBI, and More
 - Mysql Reference Guide Compatibility with Devices
 - Mysql Reference Guide Enhanced eBook Features
- 7. Enhancing Your Reading Experience
 - Adjustable Fonts and Text Sizes of Mysql Reference Guide
 - Highlighting and Note-Taking Mysql Reference Guide
 - Interactive Elements Mysql Reference Guide
- 8. Staying Engaged with Mysql Reference Guide
 - Joining Online Reading Communities
 - Participating in Virtual Book Clubs
 - Following Authors and Publishers Mysql Reference Guide
- 9. Balancing eBooks and Physical Books Mysql Reference Guide
 - Benefits of a Digital Library
 - Creating a Diverse Reading Collection Mysql Reference Guide
- 10. Overcoming Reading Challenges
 - Dealing with Digital Eye Strain
 - Minimizing Distractions
 - Managing Screen Time
- 11. Cultivating a Reading Routine Mysql Reference Guide
 - Setting Reading Goals Mysql Reference Guide
 - Carving Out Dedicated Reading Time
- 12. Sourcing Reliable Information of Mysql Reference Guide
 - Fact-Checking eBook Content of Mysql Reference Guide
 - Distinguishing Credible Sources
- 13. Promoting Lifelong Learning
 - Utilizing eBooks for Skill Development

- Exploring Educational eBooks

14. Embracing eBook Trends

- Integration of Multimedia Elements
- Interactive and Gamified eBooks

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