

# SQL

## *QuickStart Guide*

The Simplified Beginner's Guide to Managing,  
Analyzing, and Manipulation Data with SQL

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## One of the Most In-Demand Tech Skills Is Now More Accessible Than Ever

New author and experienced mentor Walter Shields has simplified the SQL learning process for everyone from absolute beginners to coding veterans.

Available 11/7/2019

Albany, NY—ClydeBank Media is proud to announce the release of their newest coding and data management title, *SQL QuickStart Guide* [978-1-945051-75-3, \$24.99] from author and mentor Walter Shields. Mr. Shields has nearly twenty years of experience helping truly massive organizations manage and understand their data so they can better make critical decisions. In the past Shields has worked with such notable partners as the Target Corporation, the NYC Transit Authority, and the NYC Administration for Children’s Services.

“Learning SQL was a challenge for me,” said Shields about his early days working with SQL. “It felt like I was driving blind in a high-speed race, struggling to operate the controls; meanwhile, every other driver seemed to pass me by. The most frustrating part was that there was no one to slow the race down and give me a slow, steady, and firm understanding of SQL in a way that made it simple fun and not rocket science.

“Seeing my mom take her time teaching students and gifting them with patience and belief—this gave me the confidence that the same thing could be done with the topic of SQL. So, I rolled out my laptop in a Tribeca coffee shop with one mindset: I was going to apply patient belief in everyone that came to learn SQL from me; and when I saw how much I encouraged folks to believe in their ability to understand what they once thought was too complex, I knew I was fully aligned with my true passion—teaching!”

Now over a decade later, Walter’s side project has outgrown the coffee shop. His natural ability to convey topics with clarity shines through in his brand new *SQL QuickStart Guide* and his wealth of knowledge is put on display. At a time when every in-demand and high-powered job includes a tech, coding, or, most importantly, data component, *SQL QuickStart Guide* is an invaluable resource.

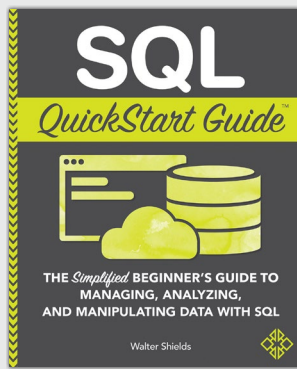
### **About the Author**

Walter Shields has worked with massive-scale databases for nearly twenty years. As the technology has changed, and the focus on data and databases has grown, so has Walter's professional trajectory. Not only has his longtime mentorship morphed into its own business, but Walter's experience and talent in navigating databases is manifest in his latest project: Datadecided.

Datadecided is a Tableau-based data visualization company that helps medium and large businesses leverage their data with actionable data visualizations. Join Walter's SQL students at [www.sqltrainingwheels.com](http://www.sqltrainingwheels.com) and learn more about how Datadecided helps business leaders harness the power of their data at [www.datadecided.com](http://www.datadecided.com).

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# SQL QuickStart Guide

The Simplified Beginner's Guide to Managing,  
Analyzing, and Manipulating Data

## ABOUT THE BOOK:

What does an overwhelming wealth of data and information have in common with one of today's fastest-growing career paths? Structured Query Language (SQL) is the answer. Pronounced "sequel" by many, SQL is the workhorse programming language that forms the backbone of modern data management and interpretation. In *SQL QuickStart Guide*, experienced mentor and SQL expert Walter Shields draws on his considerable knowledge to make the topic of relational database management accessible, easy to understand, and actionable. With more data being produced every second than you could interpret in your lifetime, the ability of businesses to warehouse, access, and, most importantly, understand and interpret this data has never been more critical.

This book is ideal for those seeking to increase their job prospects and enhance their careers, for developers looking to expand their programming capabilities, or for anyone who wants to take advantage of our data-driven future—even with no prior coding experience!

## ABOUT THE AUTHOR:

**WALTER SHIELDS** is an SQL mentor, author, and data management entrepreneur with over twenty years of experience in the field. He has worked with data-driven organizations such as the Target Corporation and the NYC Transit Authority and has been a patient, helpful mentor for hundreds of thrilled and successful students.

Mr. Shields is the principal of Datadecided, a Tableau provider that helps businesses of all sizes communicate and understand their data in a visual medium.

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**This is a table**

InvoiceDate	BillingAddress	BillingCity	Total
2011-08-08 00:00:00	1031ParkSt	London	899
2012-03-11 00:00:00	1031ParkSt	London	899
2012-03-11 00:00:00	1031ParkSt	Paris	899
2011-05-05 00:00:00	171AuseSt	London	899
2009-02-27 00:00:00	1031ParkSt	Paris	198
2009-02-27 00:00:00	171AuseSt	London	198
2011-04-11 00:00:00	1031ParkSt	Paris	198
2011-04-11 00:00:00	1031ParkSt	London	198
2011-07-05 00:00:00	1031ParkSt	London	198
2011-07-05 00:00:00	1031ParkSt	London	198
Uncommitted Write			

**These are data**

The purpose of the database is to facilitate the interaction, organization, and analysis of related data across a multitude of records. When data is placed in tables that have the capacity to relate to one another within a database, a new level of versatility becomes possible.

A database is composed of tables, and tables are composed of records.

The rows in a given table are considered records. They may also be referred to as *entries*. The columns in a table may generally be referred to as *fields*. They may also be called *attributes*. Field attributes are the categories used to define the data within the record (row).

Throughout this book we will be using the term "records" to describe the rows in a table and "fields" to describe the columns. Please refer to the Terminology Summary in Figure 5.

**LINE OF COMMENT**

```
SELECT * FROM invoices;
```

**COMMENT BLOCK**

```
SELECT * FROM invoices; -- This query returns all of the records from the invoices table.
```

**NOTE**

Comments are often overlooked completely in SQL texts. We omit comments in future chapters for the sake of brevity only. When working with real-world databases, preceding comments have saved me a lot of time that would have otherwise spent writing additional queries to figure out how the database functioned. Comments become especially important when your queries will be read or used by others.

**The Structure of a Basic Query**

Writing a query is like asking a question in any natural language. The phrasing matters, the details matter, and the order of the words matters. The more detailed our question is, the more precise our answer will be.

In the creation of an SQL query, you need to consider the following five questions:

1. What database are we speaking to?
2. What table within that database are we requesting data from?
3. What fields within that table are we interested in?
4. Do we want to exclude any data, filter or omit any range or time period?
5. In one concise sentence, what does our query do?

**Start Writing Your Query**

In this writing your first query, you can use the existing Execute SQL tab labeled "SQL" or start a new Query Pane tab in the same way that you would open a new web browser tab. Click on the "Open Tab" icon.

**NOTE**

If you are having trouble with a query, refer to the first questions above. Contemplating these questions will help you write your query.

**OPEN TAB BUTTON**

**NEW TAB**

With our new Query Pane open, the first thing we will write is a comment block.

```
--  
-- CREATED BY: 'your name'  
-- CREATED ON: '2012-03-11'  
-- DESCRIPTION: 'A concise description of your query, i.e., how query #' --  
--
```

**NOTE**

Figure 125 shows a "Modify View" option that let the time of publication is grayed out and inaccessible. Modifying existing views is not a feature supported by the version of DB Browser we are currently using. However, in other implementations of SQL, such as SQL Server, it is possible to modify existing views. We will explain how to modify a view in SQL in later in this chapter.

**Why We Use Views**

Views are helpful for a number of reasons, but convenience is definitely the main one. If you find yourself repeatedly writing the same query or continually referring to a particular join that shows two tables instead together, it may be convenient to save that query as a view so that it can be referenced when you need it. Also, when a query is saved as a view, it can be called by a subquery by selecting the view name.

Let's refer back to the view `V_InvoiceTotal` that we created at the beginning of this chapter. You may remember from chapter 8 that we used the range function as a subquery so that we could compare the totals of invoices against the average total of all invoices. Instead of writing out the full average subquery in our statement, we could write our query this way instead.

```
SELECT InvoiceDate,  
BillingAddress,  
BillingCity,  
TOTAL  
FROM invoices  
WHERE TOTAL < (select  
*  
from V_InvoiceTotal)
```

**NOTE**

Even though our view is a complete SQL statement when we write and refer to it in a SELECT statement when using it with subqueries. We use the "symbol" of SELECT statements to get access to refer to it from the view being referenced. In this

**Using the LIKE Operator to Search for Wildcards**

In previous examples, we have used the operator to search for exactly the text we are looking for. SQL also allows us to search for parts of a text value using the LIKE operator. This is particularly useful when we are not certain how a text value is spelled in a database. Also, there may be cases where a text value is not spelled correctly in our database. If we were to look for all invoices that were billed in cities that start with "L", the criteria in our WHERE clause would need to be changed to accommodate this type of search.

What makes the LIKE operator so useful is its use of wildcard characters, which are represented by "%" and called the percent symbol. What follows the % sign is the only value you can expect to see in your result set. With the LIKE and wildcard, you can find variations on your input.

**NOTE**

Wildcard characters will always be enclosed in single quotation marks. Without quotation marks, % is an arithmetic operator known as modulo, as shown earlier in this chapter in the tables of operators. Text searches are not case sensitive. A lowercase "a" and an uppercase "A" will return the same results.

A wildcard symbol represents any number of any type of characters. As used in the example below, the query will search for any invoices that were billed in cities that start with "L". Our results show that both Toronto and Tucson are now included.

```
SELECT InvoiceDate,  
BillingAddress,  
BillingCity,  
TOTAL  
FROM invoices  
WHERE BillingCity LIKE 'L%'  
ORDER BY TOTAL
```

**NOTE**

Creating a view named `V_InvoiceTotal` as `SELECT InvoiceDate, BillingAddress, BillingCity, TOTAL FROM invoices` is a useful naming convention because it lets anyone reading your code know that they are dealing with a view. After the underscore symbol, we include a brief description of the view function, using further underscores if needed. We could also name this view `V_InvoiceTotal_Processed`. Choose whatever makes the most sense to you.

When we execute this statement, we get a message that says "Query executed successfully: CREATE VIEW V\_InvoiceTotal AS: If we then look in our Database Structure tab in DB Browser, the view `V_InvoiceTotal` can be viewed under a section called Views.

Now that this view is created, there are some simple tasks we can perform just by right-clicking on it. When we right-click on the view, we get the following menu box (Figure 125).

**NOTE**

Selecting the "Browse Table" option will move us to the adjacent Browse Data tab where we can investigate the contents of our view, as we would with any table in the database. From this menu, we can also delete the view or generate a copy of the code (which we typed earlier) that created it.

**NOTE**

Even though our view is a complete SQL statement when we write and refer to it in a SELECT statement when using it with subqueries. We use the "symbol" of SELECT statements to get access to refer to it from the view being referenced. In this

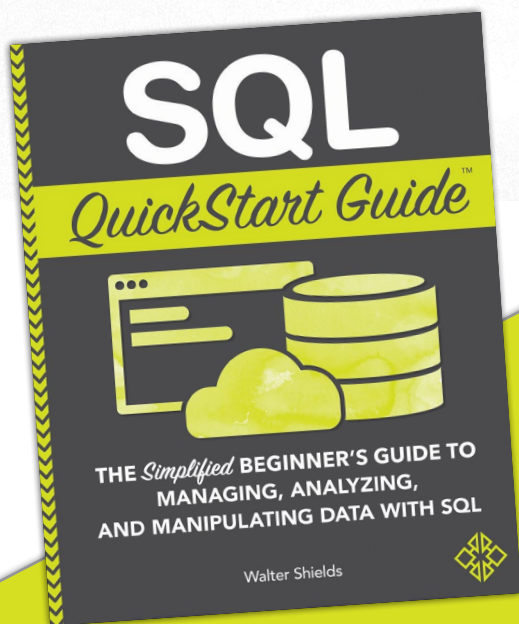
# WALTER SHEILDS



## A LEADING AUTHORITY ON SQL AND DATA ANALYSIS

**WALTER SHIELDS** is an SQL mentor, author, and data management entrepreneur with over twenty years of experience in the field. He has worked with data-driven organizations such as the Target Corporation and the NYC Transit Authority and has been a patient, helpful mentor for hundreds of thrilled and successful students.

Mr. Shields is the principal of Datadecided, a Tableau provider that helps businesses of all sizes communicate and understand their data in a visual medium.



### EXPERIENCE:

- Over 20 years SQL experience working with organizations such as Target, NYC Transit Authority, and Bank of America.
- Has taught and mentored hundreds of on students how to utilize SQL both in person and online.
- Founder of DataDecided, a Tableau-based data visualization company that helps medium and large businesses leverage their data with actionable data visualizations.

**WALTER SHIELDS**, in addition to authoring the **SQL QuickStart Guide: The Simplified Beginner's Guide to Managing, Analyzing, and Manipulating Data**, he is also the **founder of DataDecided**: <https://datadecided.com/> and **SQL Training Wheels**: <https://sqltrainingwheels.com/>



Datadecided 

SQL TRAINING WHEELS

# SAMPLE INTERVIEW QUESTIONS

**TITLE:** *SQL QuickStart Guide: The Simplified Beginner's Guide to Manage, Analyzing, and Manipulating Data with SQL*

**AUTHOR:** Walter Shields

## GENERAL QUESTIONS:

1. SQL is for navigating databases. What does this mean in the real world? What kind of businesses use SQL on a regular basis?
2. Is SQL easy to learn?
3. If SQL is easy to learn, why does it seem like there are still so many people who are not familiar with it as a language?
4. Is SQL necessary for people who want to become developers?
5. Would you say that the demand for job seekers with SQL experience is increasing or decreasing?
6. We have seen other languages come and go. Is there a risk of that for people who are learning SQL now for their careers?
7. Your main project right now focuses on data visualization. What benefit does this bring to your clients?

## BOOK-SPECIFIC QUESTIONS:

1. Why did you decide to write the *SQL QuickStart Guide*?
2. Who is the *SQL QuickStart Guide* for?
3. How much coding experience should someone have to get the most out of the book?
4. If someone picks up the book and reads it cover to cover, what are the next steps?

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## TARGET MARKETS:

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  - Individuals seeking to advance their professional career with SQL knowledge
  - Individuals seeking to learn SQL for personal endeavors
  - Individuals studying SQL for scholastic purposes
- » **Academic Market:**
  - High school classes in programming, data analysis, databases
  - Undergraduate classes in programming, data analysis, databases
- » **Additional Markets:**
  - Domestic and international libraries
  - Domestic and international bookstores
  - SQL/programming/data manipulation training programs & seminars

## COMP TITLES:



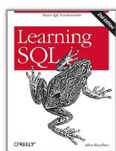
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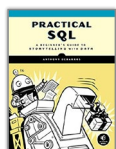
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**ISBN-13:** 978-1491938614 | **Publish Date:** February 28, 2016  
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» **Differentiated From Competition:**

- *SQL QuickStart Guide* is the most beginner-friendly, comprehensive, upto-date and widely accessible title on SQL programming
- *SQL QuickStart Guide* is the most simplified presentation of the material on the market. No unnecessary fluff is included to distract or confuse readers.
- The author, Walter Shields, is a qualified SQL expert with over 20 years of experience
- The title will be supplemented with multiple free online digital resources and a comprehensive online course taught by the author for an additional fee

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We believe that access to the right information is the key to success. That's why we're committed to providing high-quality, easily understandable, reliable information to our customers through the web, print books, e-books, and audiobooks.

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