Chapter 3

How to retrieve data from a single table

Exercises

Enter and run your own SELECT statements

In these exercises, you'll enter and run your own SELECT statements.

1. Write a SELECT statement that returns four columns from the Products table: product_code, product_name, list_price, and discount_percent. Then, run this statement to make sure it works correctly.

Add an ORDER BY clause to this statement that sorts the result set by list price in descending sequence. Then, run this statement again to make sure it works correctly. This is a good way to build and test a statement, one clause at a time.

2. Write a SELECT statement that returns one column from the Customers table named full_name that joins the last_name and first_name columns.

Format this column with the last name, a comma, a space, and the first name like this:

Doe, John

Sort the result set by last name in ascending sequence.

Return only the customers whose last name begins with letters from M to Z.

NOTE: When comparing strings of characters, 'M' comes before any string of characters that begins with 'M'. For example, 'M' comes before 'Murach'.

3. Write a SELECT statement that returns these columns from the Products table:

list_price The list_price column

date_added The date_added column

Return only the rows with a list price that's greater than 500 and less than 2000.

Sort the result set in descending sequence by the date_added column.

4. Write a SELECT statement that returns these column names and data from the Products table:

list_price The list_price column

discount_percent The discount_percent column

discount_amount A column that's calculated from the

previous two columns

discount_price A column that's calculated from the

previous three columns

Round the discount_amount and discount_price columns to 2 decimal places.

Sort the result set by discount price in descending sequence.

Use the LIMIT clause so the result set contains only the first 5 rows.

5. Write a SELECT statement that returns these column names and data from the Order Items table:

item id The item id column

item_price The item_price column

discount_amount The discount_amount column

quantity The quantity column

price_total A column that's calculated by multiplying

the item price by the quantity

discount_total A column that's calculated by multiplying

the discount amount by the quantity

item_total A column that's calculated by subtracting

the discount amount from the item price and

then multiplying by the quantity

Only return rows where the item_total is greater than 500.

Sort the result set by item total in descending sequence.

Work with nulls and test expressions

6. Write a SELECT statement that returns these columns from the Orders table:

order_id The order_id column
order_date The order_date column
ship_date The ship_date column

Return only the rows where the ship_date column contains a null value.

7. Write a SELECT statement without a FROM clause that uses the NOW function to create a row with these columns:

today_formatted The NOW function in this format:

DD-Mon-YYYY

This displays a number for the day, an abbreviation for the month, and a four-digit year.

8. Write a SELECT statement without a FROM clause that creates a row with these columns:

price 100 (dollars)

tax_rate .07 (7 percent)

tax_amount The price multiplied by the tax

total The price plus the tax

To calculate the fourth column, add the expressions you used for the first and third columns.