

SQL Self-Test

These questions are provided to help you to assess your own level of knowledge. To be eligible to apply for this Certificate, you should be able to answer *all* of the questions. If you cannot answer these questions, or are uncertain of your answers, we recommend completing the [W3 Schools SQL tutorial](#) or, for more in-depth training, enrolling in our [Database Management Foundations](#) course before applying to the Certificate.

SELF-TEST

1. What is structured query language and how is it used?
2. What is a primary key?
3. What is a foreign key?
4. Why would you need to join two tables?
5. What is the difference between a one-to-one and a one-to-many relationship? Can you join 2 tables to create a many-to-many relationship?
6. Write a SQL statement which does the following:
 - a. Creates a new table with 3 fields: Firstname, Lastname, PID.
 - b. Make PID the primary key
 - c. Why might this table contain a foreign key?
7. Write an SQL statement for the above table that would find all people with the last name "Sweeney" and sort the results alphabetically by last name & first name.
8. Consider the following tables:

Employees:

Employee_ID	Name
01	Hansen, Ola
02	Svendson, Tove
03	Svendson, Stephen
04	Pettersen, Kari

Orders:

Prod_ID	Product	Employee_ID
234	Printer	01
657	Table	03

- a. Write a SQL statement that finds the name of employees who have a printer.
 - b. Write a SQL statement that finds anyone named "Svendson" and any products they own.
9. What is the difference between DDL and DML?

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10. Consider the following tables:

Product:

Product ID	Product Name	Product Category
12	Bike ABC	Road Bike
13	Bike DEF	Mountain Bike
14	Bike GHI	Road Bike
15	Bike JKL	Touring Bike

Sales:

Product ID	Customer	Sales Amount
12	Joe	1000
13	Tom	2000
14	Joe	1500
12	Bill	1000

- Write a SQL statement that returns the distinct list of product categories from the Product table.
- Write a SQL statement that returns the total record count from the Sales table.
- Write a SQL statement that returns the Sum of Sales Amount grouped by Product Category.
- Write a SQL statement that returns the Sum of Sales Amount grouped by Product Category having sales greater than 1500
- Write a SQL Statement that returns the Distinct count of customers from the Sales table
- Write a SQL Statement that returns a list of products that do not appear the Sales table.

END

Thank you for completing this self-test. If you cannot answer all these questions, or are uncertain of your answers, we recommend completing the [W3 Schools SQL tutorial](#) or, for more in-depth training, enrolling in our [Database Management Foundations](#) course before applying to the Certificate.

