# Eventsquid SQL Challenge

## Please answer all the questions below.

## Feel free to take your time and research as necessary!

**What is a trigger?**  
  
A trigger is a special kind of stored procedure executed when a certain event occurs.  
  
A trigger defines relations between tables.  
  
A trigger is part of data extraction process.

**Which SQL keyword is used to retrieve a maximum value?**  
  
MAX  
  
UPPER  
  
MOST  
  
TOP

**Can you join a table to itself?**  
  
Yes.  
  
No.

**What does the UNION operator do?**  
  
The UNION operator sorts the selected result set.  
  
The UNION operator behaves the same as the JOIN SQL clause.  
  
The UNION operator combines the results of two or more queries into a one result that includes all the rows from the queries in the union.

**Which of the following SQL clauses is used to select data from 2 or more tables?**  
  
HAVING  
  
WHERE  
  
JOIN

**Which of the following SQL statements is correct?**  
  
TRUNCATE TABLE Sales  
  
TRUNCATE \* FROM TABLE Sales  
  
TRUNCATE Sales TABLE

**The SQL BETWEEN operator ...**  
  
Specifies that a column is a primary key.  
  
Specifies a range to test.  
  
Specifies which tables we are selecting from.

**Which of the following 3 SQL statements is correct?**  
  
SELECT Username, Password WHERE Username = 'user1'  
  
SELECT Username AND Password FROM Users  
  
SELECT Username, Password FROM Users

**What is the difference between the WHERE and HAVING SQL clauses?**  
  
The HAVING SQL clause condition(s) is applied to all rows in the result set before the WHERE clause is applied (if present). The WHERE clause is used only with SELECT SQL statements and specifies a search condition for an aggregate or a group.  
  
The WHERE SQL clause condition(s) is applied to all rows in the result set before the HAVING clause is applied (if present). The HAVING clause is used only with SELECT SQL statements and specifies a search condition for an aggregate or a group.  
  
The WHERE and the HAVING clauses are identical

**Which SQL statement inserts data into a table called Projects?**  
  
INSERT INTO Projects (ProjectName, ProjectDescription) VALUES ('Content Development', 'Website content development project')  
  
INSERT Projects VALUES ('Content Development', 'Website content development project')  
  
INSERT Projects ('Content Development', 'Website content development project')  
  
SAVE INTO Projects (ProjectName, ProjectDescription) VALUES ('Content Development', 'Website content development project')

**The TRUNCATE TABLE...**  
  
deletes the table  
  
checks if the table has primary key specified  
  
deletes all rows from a table

**Which SQL keyword is used to retrieve only unique values?**  
  
UNIQUE  
  
DISTINCT  
  
DIFFERENT  
  
DISTINCTIVE

**Which of the following statements gets the total value of the column 'Price' in the 'Sales' table?**  
  
SELECT SUM(Price) FROM Sales  
  
SELECT SUM(Price) WHERE Sales  
  
SELECT TOTAL(Price) FROM Sales  
  
SELECT ADD(Price) FROM Sales

**The IN SQL keyword...**  
Is used with the DISTINCT SQL keyword only.  
  
Defines the tables we are selecting or deleting data from.  
  
Determines if a value matches any of the values in a list or a sub-query.

**A trigger belongs to...**  
  
to all tables in the database  
  
more than one table in the database  
  
a single table in the database

**The INNER JOIN clause...**  
  
returns all rows from 2 tables.  
  
returns only the rows from the first table, which have non-matching values with the second table in the field on which the 2 tables are joined.  
  
returns all rows that have matching value in the field on which the 2 tables are joined.

Below are two tables: Employee and Duties. Feel free to use as much space as you need to write your answers.

**Employees**

|  |  |  |  |
| --- | --- | --- | --- |
| **empID** | **firstName** | **lastName** | **salary** |
| 1 | Bob | Smith | 100,000 |
| 2 | Ellen | Jones | 125,000 |
| 3 | John | Evans | 85,000 |
| 4 | Olivia | Brown | 92,000 |
| 5 | Steven | Matthews | 109,000 |

**Duties**

|  |  |  |
| --- | --- | --- |
| **dutyID** | **empID** | **duty** |
| 1 | 1 | Writing |
| 2 | 1 | Editing |
| 3 | 2 | Sales |
| 4 | 3 | Printing |
| 5 | 3 | Editing |
| 6 | 4 | Training |
| 7 | 4 | Sales |
| 8 | 5 | Book Reviews |

**Write a query to sort employees alphabetically by last name, returning empID, firstName and lastName in the result set.**

**Write a query to retrieve the empID, firstName, lastName and salary of the employee that has the highest salary.**

**Write a query to retrieve the empID, firstName, lastName and salary of the employee that has the lowest salary.**

**Write a query to retrieve a list of unique duties, returning only the duty column in the result set.**

**Write a query to list the empID, firstName, lastName and count of duties of all employees with MORE THAN one duty.**

**Write a query to list the empID, firstName, lastName and duty of each employee and their duties (multiple rows in the output record set for each employee is okay).**