

# AQA Computer Science GCSE

## 3.7.2 Structured Query Language (SQL)

### Flashcards

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# What does SQL stand for?



# What does SQL stand for?

## Structured Query Language



# What is SQL used for?



# What is SQL used for?

To search for, manage, and manipulate data in a relational database.



# What does the SELECT keyword do?



# What does the SELECT keyword do?

It specifies which columns of data to retrieve.



# What does the FROM keyword do?





# What does the FROM keyword do?

It specifies which table to get the data from.



# What does the WHERE clause do?



# What does the WHERE clause do?

It filters records that meet a specific condition.



# What does the AND keyword do in SQL?



# What does the AND keyword do in SQL?

It combines multiple conditions in a  
**WHERE** clause.



# What does \* mean in an SQL query?



# What does \* mean in an SQL query?

It selects all columns from the table.



Write an SQL query to select  
all data from a table called  
Students.





Write an SQL query to select all data from a table called Students.

```
SELECT * FROM Students
```



Write an SQL query to show  
only the FirstName and  
LastName fields from the  
Students table.



Write an SQL query to show only the FirstName and LastName fields from the Students table.

```
SELECT FirstName, LastName  
FROM Students
```



Write an SQL query to select students aged over 16, given that there is a field titled age.



Write an SQL query to select students aged over 16, given that there is a field titled age.

```
SELECT * FROM Students WHERE  
age > 16
```



Write an SQL query to select female students aged over 16, given that there is also a field titled sex which is either "female" or "male".




Write an SQL query to select female students aged over 16, given that there is also a field titled sex which is either "female" or "male".

```
SELECT * FROM Students WHERE  
age > 16 AND sex = "female"
```




Write an SQL command that would return “2010” from this database.

Table: Vehicles		
Registration 	Age	YearManufactured
BN61 YCZ	6	2011
ED10 XBL	7	2010
LN62 ERR	5	2012





Write an SQL command that would return “2010” from this database.

Table: Vehicles		
Registration 	Age	YearManufactured
BN61 YCZ	6	2011
ED10 XBL	7	2010
LN62 ERR	5	2012

```
SELECT YearManufactured FROM Vehicles WHERE Registration = "ED10 XBL"
```



Write an SQL command to add the following information to the database

Registration: RD63 OLE

Age: 5

YearManufactured: 2013



Write an SQL command to add the information to the database

```
INSERT INTO Vehicles VALUES ("RD63 OLE", 5, 2013)
```



Which of the following commands would return all information from the database?

**A:** SELECT ALL FROM Vehicles

**B:** FROM Vehicles SELECT EVERYTHING

**C:** SELECT \* FROM Vehicles




Which of the commands would return all information from the database?

C




Write an SQL command that would change the vehicle with registration BN61 YCZ's age to 10.

Table: Vehicles		
Registration 	Age	YearManufactured
BN61 YCZ	6	2011
ED10 XBL	7	2010
LN62 ERR	5	2012



Write an SQL command that would change the vehicle with registration BN61 YCZ's age to 10.

Table: Vehicles		
Registration 	Age	YearManufactured
BN61 YCZ	6	2011
ED10 XBL	7	2010
LN62 ERR	5	2012

```
UPDATE Vehicles SET Age = 10 WHERE Registration = "BN61 YCZ"
```



# Is SQL case sensitive?





# Is SQL case sensitive?

SQL keywords are not case sensitive,  
but data values might be.



How do you join two tables  
when retrieving data from  
related tables?



How do are two tables joined when retrieving data from related tables?

By setting the primary key equal to the foreign key in the WHERE statement.



# How are attributes specific to a table written?



# How are attributes specific to a table written?

`table_name.attribute_name`



# Write an SQL command to retrieve the StudentNo from any students in class 12C.



Table: Students				
StudentNo 	Name	Email	Year	TeacherID
55685	Aaron Aaronson	a.a.aaronson@outlook.com	1	01
55887	Beth Hunter	elisabeth.h@gmail.com	2	02
55622	Sam Cooper	samc00per@hotmail.com	1	01

Table: Teachers		
TeacherID 	Name	Class
01	Mr. Davies	13D
02	Ms. Smith	12C



Write an SQL command to retrieve the StudentNo from any students in class 12C.

```
SELECT Students.StudentNo  
FROM Students, Teachers  
WHERE Teachers.Class = '12C' AND  
Teachers.TeacherID = Students.TeacherID
```



# Write an SQL command to retrieve the names of any students and teachers in class 13D.



Table: Students				
StudentNo 	Name	Email	Year	TeacherID
55685	Aaron Aaronson	a.a.aaronson@outlook.com	1	01
55887	Beth Hunter	elisabeth.h@gmail.com	2	02
55622	Sam Cooper	samc00per@hotmail.com	1	01

Table: Teachers		
TeacherID 	Name	Class
01	Mr. Davies	13D
02	Ms. Smith	12C





Write an SQL command to retrieve the names of any students and teachers in class 13D.

```
SELECT Students.Name, Teachers.Name  
FROM Students, Teachers  
WHERE Teachers.Class = '13D' AND  
Teachers.TeacherID = Students.TeacherID
```



Write an SQL command to retrieve the StudentNo of all student and order it by increasing TeacherID.



Table: Students				
StudentNo 	Name	Email	Year	TeacherID
55685	Aaron Aaronson	a.a.aaronson@outlook.com	1	01
55887	Beth Hunter	elisabeth.h@gmail.com	2	02
55622	Sam Cooper	samc00per@hotmail.com	1	01

Table: Teachers		
TeacherID 	Name	Class
01	Mr. Davies	13D
02	Ms. Smith	12C



Write an SQL command to retrieve the StudentNo of all student and order it by increasing TeacherID.

```
SELECT Students.StudentNo  
FROM Students, Teachers  
WHERE Teachers.TeacherID =  
Students.TeacherID  
ORDER BY Teachers.TeacherID ASC
```

