

# Spring 2022 courses

## DONE db quiz 6

### Settings

- A question has only ONE right answer unless otherwise noted
- This quiz covers the beginning of the SELECT roundup and the DataCamp course "Introduction to SQL"
- After the first play, the quiz will be opened for unlimited play
- Let me know if you have any comments or corrections

### Complete the SQL code to return the output

The database `people` has columns `birthdate` and `deathdate` that contain dates of birth and dates of death.

Select [1] [2] to get the percentage of people in `people` who are no longer alive.

CODE:

```
SELECT [1] * 100.0 / [2] AS percentage_dead FROM people;
```

OUTPUT:

```
percentage_dead
-----
9.372394
```

### Solution

TRUE:

- [1] `COUNT(deathdate)` [2] `COUNT(*)`

FALSE:

- [1] `COUNT(*)` [2] `COUNT(deathdate)`
- [1] `TOTAL(deathdate)` [2] `COUNT(*)`
- [1] `COUNT(birthdate)` [2] `TOTAL(deathdate)`

### Which SQL keyword is used to sort on multiple columns?

TRUE:

- `ORDER BY`

FALSE:

- `SORT`
- `ORDER`
- `GROUP BY`

### How would you find the number of records in a table?

The table books contains book titles in the column title, and other book attributes, like ISBN, author, and so on.

Which command returns the number of records in books?

*More than one answer is correct.*

TRUE:

- `SELECT COUNT(*) FROM books;`
- `SELECT COUNT(title) FROM books;`

FALSE:

- `SELECT * FROM books;`
- `SELECT COUNT FROM books;`

## Complete the code to return the output

The columns of the table books are: title, ISBN, author, length, language, publisher and date

Which code fragment returns the output below when you insert it in the code below for ???

CODE:

```
SELECT ??? FROM books LIMIT 5;
```

OUTPUT:

```
length
-----
544
110
288
310
145
```

TRUE

- `length`

FALSE:

- `ISBN`
- `number_of_pages as length`
- `language`

Feedback: length is the column that can be queried. There is no length information in the columns ISBN, or language, and number\_of\_pages does not exist as a column.

## How can you find out the names of all columns in an SQLite table t if the header is off?

Tip: if the header is off, the SQLite variable `.header` is OFF. You can e.g. see this with the `.show` command.

TRUE:

- `.schema`

FALSE:

- .show names
- SELECT \* FROM t;
- .mode column

Feedback: .schema contains all data definition commands (like CREATE). .show does not have an argument. SELECT would show the names IF the header was ON. .mode only changes the table layout.

## Complete the code to return the output

films is a table that contains attributes of films like duration and certification.

CODE:

```
??? duration, certification
FROM films
LIMIT 5;
```

OUTPUT:

duration	certification
123	'Not Rated'
110	
151	'Not Rated'
145	'Not Rated'
110	'Not Rated'

TRUE

- SELECT

FALSE

- GET
- SEL

~ .show

Feedback: There is no alias for the SELECT command, which is the only querying command in SQL

## What's wrong with the code?

You meant to print the four lines with id 2-5 but the output gives you what you see below. How can you fix the command?

```
SELECT * FROM foods LIMIT 4,1;
```

id	type_id	name
5	1	Black and White cookies

TRUE:

- It should be LIMIT 1,4

FALSE:

- It should be `LIMIT 1 OFFSET 4`
- It should be `SELECT type_id` instead of `*`
- You need a `WHERE` statement to filter the rows first

## What do database professionals need more than anything else?

*More than one answer is correct.*

TRUE

- Critical thinking skills
- Analysis skills
- Troubleshooting skills
- Research skills

## An SQLite REPL can be run in a Docker container

Definition: “A container is a standard unit of software that packages up code and all its dependencies so the application runs quickly and reliably from one computing environment to another.”

TRUE

Feedback: Replit.com uses a Docker container. See notes.org in GitHub for details.

## What does a JOIN operation in SQL do?

TRUE:

- It projects columns from multiple tables for a querying process

FALSE:

- It creates a Cartesian product of the rows of two tables
- It combines the Primary Keys of two tables
- It filters rows from a table to be queried further

Feedback: A CROSS JOIN is a special JOIN that amounts to a Cartesian product. The combination of PKs of two tables is a special type of JOIN, too: tables can be combined without PKs being involved (see the xyz examples from class). Filtering rows is done with WHERE, not JOIN.

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