

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
```

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;
```

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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