

Exercise 1

Task 2

The output of `SELECT version();` is:

```
PostgreSQL 14.13 (Ubuntu 14.13-0ubuntu0.22.04.1) on x86_64-pc-linux-gnu,  
compiled by gcc (Ubuntu 11.4.0-1ubuntu1~22.04) 11.4.0, 64-bit
```

Task 3

The DB contains chess data.

The query:

```
SELECT COUNT(*)  
FROM games  
WHERE result = '1-0'
```

returns the number of games (7'753'413) that ended with a white victory.

Task 4

The query:

```
SELECT EXTRACT(MONTH FROM game_start), COUNT(*)  
FROM games  
GROUP BY EXTRACT(MONTH FROM game_start)
```

returns the number of games played in each month.

Output:

```
1  4770357  
2  5015361  
3  5801234
```

Task 5

Q:

What are the advantages and disadvantages of using databases to manage data compared to file-based approaches? (2 advantages and 2 disadvantages as bullet points)

A:

Advantages:

- Data consistency: Databases ensure that data is consistent and that it follows the defined constraints.

- Data integrity: Databases provide mechanisms to enforce data integrity, e.g., foreign key constraints.

Disadvantages:

- Complexity: Databases are more complex to set up and maintain compared to file-based approaches.
- Performance: Databases can be slower than file-based approaches for simple read/write operations.

Q:

What is the link to the official documentation for the `version()` function used in the first task and to which category of functions does it belong?

A:

The link to the official documentation for the `version()` function is here. The `version()` function belongs to the category of Session Information Functions.