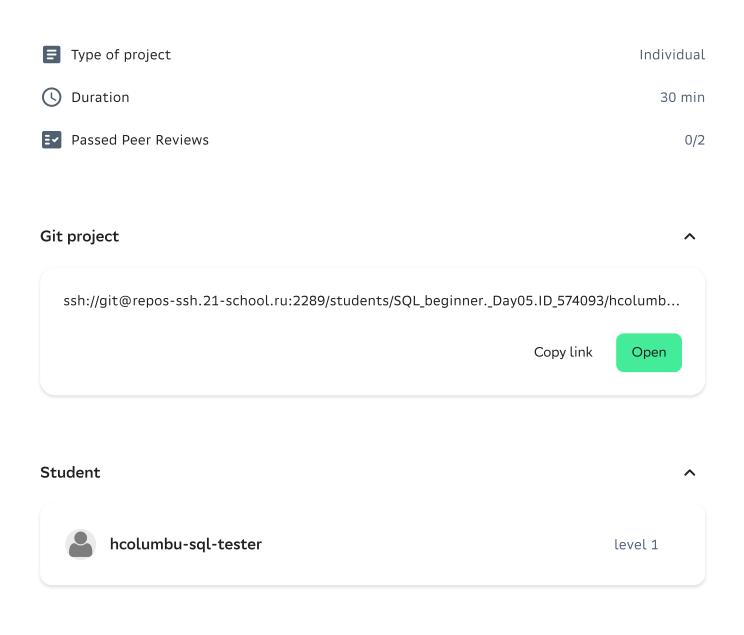


# ← Project review - SQL beginner. Day05



Introduction

About

The methodology of School 21 makes sense only if peer-to-peer reviews are done seriously. Please read all guidelines carefully before starting the review.

- Please, stay courteous, polite, respectful and constructive in all communications during t his review.
- Highlight possible malfunctions of the work done by the person and take the time to disc uss and debate it.
- Keep in mind that sometimes there can be differences in interpretation of the tasks and the scope of features. Please, stay open-minded to the vision of the other.
- If you have not finished the project yet, it is compulsory to read the entire instruction bef ore starting the review.

### **Guidelines**

- Evaluate only the files that are in src folder on the GIT repository of the student or group.
- Ensure to start reviewing a group project only when the team is present in full.
- Use special flags in the checklist to report, for example, an "empty work" if repository do es not contain the work of the student (or group) in the src folder of the develop branch, or "cheat" in case of cheating or if the student (or group) are unable to explain their work at a ny time during review as well as if one of the points below is not met. However, except for cheating cases, you are encouraged to continue reviewing the project to identify the probl ems that caused the situation in order to avoid them at the next review.
- Doublecheck that the GIT repository is the one corresponding to the student or the group.
- Meticulously check that nothing malicious has been used to mislead you.
- In controversial cases, remember that the checklist determines only the general order of the check. The final decision on project evaluation remains with the reviewer.

Main part

#### Exercise 00

Checks for the file day05\_ex00.sql

- The SQL script looks like below.

create index idx\_menu\_pizzeria\_id on menu(pizzeria\_id); create index idx\_person\_order\_person\_id on person\_order(person\_id); create index idx\_person\_order\_menu\_id on person\_order(menu\_id); create index idx\_person\_visits\_person\_id on person\_visits(person\_id); create index idx\_person\_visits\_pizzeria\_id on person\_visits(pizzeria\_id);

- The SQL script looks like below.

select count(\*) = 5 as check

```
from pg_indexes
where indexname in ('idx_menu_pizzeria_id','idx_person_order_person_id',
    'idx_person_order_menu_id','idx_person_visits_person_id','idx_person_visits_pizzeria_id')

- The result is below (raw ordering should be the same like on a screen below)

"true"

No 
Yes
```

### Exercise 01

Checks for the file day05\_ex01.sql

- The SQL script looks like below.

```
set enable_seqscan =off;
explain analyse
select
    m.pizza_name as pizza_name,
    pz.name as pizzeria_name
from menu m
inner join pizzeria pz on m.pizzeria_id = pz.id;
```

- The result should contain a part of text below.

"Index Scan using idx\_menu\_pizzeria\_id on menu m ..."

No Yes

#### Exercise 02

Checks for the file day05\_ex02.sql

- The SQL script looks like below.

create index idx\_person\_name on person(upper(name));

```
set enable_seqscan =off;
explain analyse
select *
from person
where upper(name) = 'Kate';
```

- The result should contain a part of text below.

"Index Scan using idx\_person\_name on person ..."





### Exercise 03

Checks for the file day05\_ex03.sql

- The SQL script looks like below.

create index idx\_person\_order\_multi on person\_order(person\_id, menu\_id,order\_date);

```
set enable_seqscan =off;
explain analyse
SELECT person_id, menu_id,order_date
FROM person_order
WHERE person_id = 8 AND
    menu_id = 19;
```

- The result should contain a part of text below.

"Index Only Scan using idx\_person\_order\_multi on person\_order ..."

No



## **Exercise 04**

Checks for the file day05\_ex04.sql

- The SQL script looks like below.

create unique index idx\_menu\_unique on menu(pizzeria\_id,pizza\_name);

```
set enable_seqscan =off;
explain analyse
select *
from menu
where pizzeria_id = 1 and pizza_name = 'cheese pizza';
```

- The result should contain a part of text below.

"Index Scan using idx\_menu\_unique on menu ..."





#### Exercise 05

Checks for the file day05\_ex05.sql

- The SQL script looks like below.

create unique index idx\_person\_order\_order\_date on person\_order(person\_id, menu\_id) wh ere order\_date = '2022-01-01';

```
set enable_seqscan =off;
explain analyse
select menu_id
from person_order
where order_date = '2022-01-01' and person_id =2;
```

- The result should contain a part of text below.

"Index Only Scan using idx\_person\_order\_order\_date on person\_order ..."

No Yes

## Exercise 06

Checks for the file day05\_ex06.sql

- The SQL script looks like below.

```
create index idx_1 on pizzeria(rating);
```

set enable\_seqscan =off;

explain analyse

**SELECT** 

m.pizza\_name AS pizza\_name,

max(rating) OVER (PARTITION BY rating ORDER BY rating ROWS BETWEEN UNBOUND ED PRECEDING AND UNBOUNDED FOLLOWING) AS k

FROM menu m

INNER JOIN pizzeria pz ON m.pizzeria\_id = pz.id ORDER BY 1,2;

- The result should contain a part of text below.

"Index Scan using idx\_1 on pizzeria pz ..."





