МИНИСТЕРСТВО НАУКИ И ВЫСШЕГО ОБРАЗОВАНИЯ РОССИЙСКОЙ ФЕДЕРАЦИИ

федеральное государственное автономное образовательное учреждение высшего образования

«САНКТ-ПЕТЕРБУРГСКИЙ ГОСУДАРСТВЕННЫЙ УНИВЕРСИТЕТ АЭРОКОСМИЧЕСКОГО ПРИБОРОСТРОЕНИЯ»

КАФЕДРА №  43

ОТЧЕТ

ЗАЩИЩЕН С ОЦЕНКОЙ

ПРЕПОДАВАТЕЛЬ

### Старший преподаватель                                                               Путилова Н. В.

должность, уч. Степень, звание   подпись, дата                    инициалы, фамилия

ОТЧЕТ О ЛАБОРАТОРНОЙ РАБОТЕ №6

[Разработка SQL запросов:](https://pro.guap.ru/inside/student/tasks/129276) запросы с подзапросами

по курсу: ПРОЕКТИРОВАНИЕ БАЗ ДАННЫХ

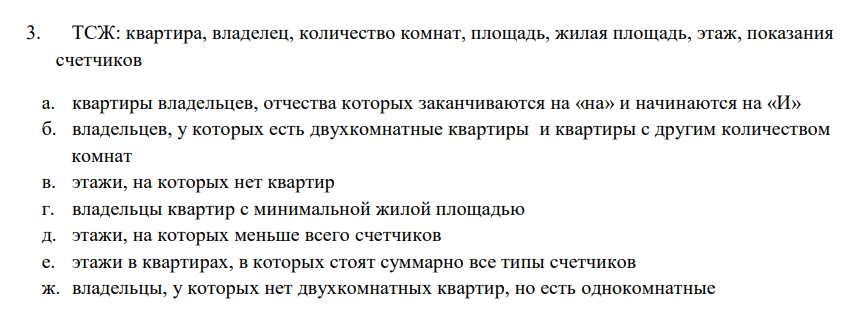
РАБОТУ ВЫПОЛНИЛ

СТУДЕНТ ГР. 4136                                                                        Бобрович Н. С.

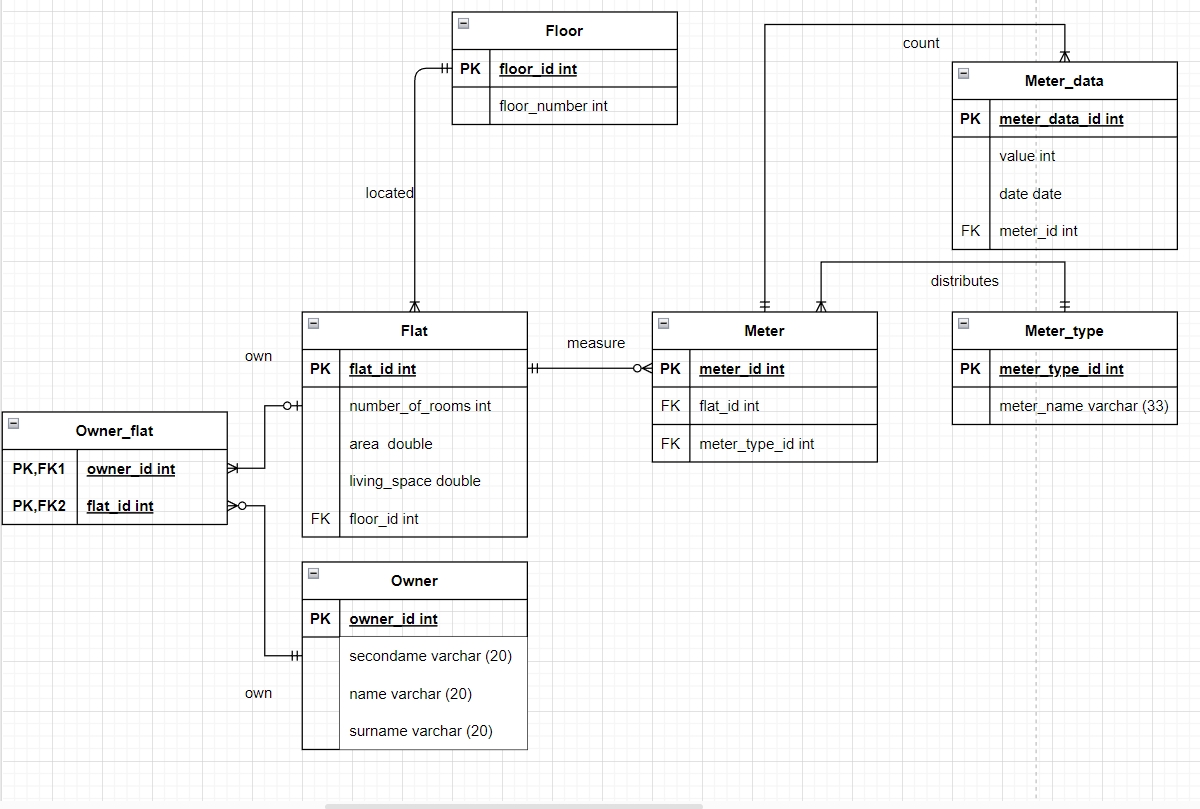
                                                                         подпись, дата                      инициалы, фамилия

Санкт-Петербург 2023

Вариант 3:



Физическая модель БД:



Текст запросов:

USE BD1;

#6

ЗАПРОС Г)

SELECT O.\*

FROM owner AS O

LEFT JOIN owner\_flat AS O\_F ON O.owner\_id = O\_F.owner\_id

LEFT JOIN flat AS F ON F.flat\_id = O\_F.flat\_id WHERE living\_space = (SELECT MIN(living\_space) FROM flat);

SELECT O.\*

FROM owner AS O

LEFT JOIN owner\_flat AS O\_F ON O.owner\_id = O\_F.owner\_id

LEFT JOIN flat AS F ON F.flat\_id = O\_F.flat\_id WHERE living\_space <= ALL (SELECT (living\_space) FROM flat);

ЗАПРОС Д)

select FLO.floor\_id, COUNT(M.meter\_id)

from floor AS FLO

join flat AS FLA on FLO.floor\_id = FLA.floor\_id

LEFT JOIN meter AS M ON FLA.flat\_id = M.flat\_id

group by FLA.floor\_id

HAVING COUNT(M.meter\_id) = (

SELECT MIN(t.c) FROM (

SELECT COUNT(\*) AS c

FROM flat AS FLA

LEFT JOIN meter AS M ON FLA.flat\_id = M.flat\_id

GROUP BY M.meter\_id

) t

);

ВАРИАЦИИ ЗАПРОСА Е)

select FLO.floor\_id, COUNT(DISTINCT M\_T.meter\_type\_id)

from floor AS FLO

join flat AS FLA on FLO.floor\_id = FLA.floor\_id

JOIN meter AS M ON FLA.flat\_id = M.flat\_id

left join meter\_type AS M\_T ON m.meter\_type\_id = m\_t.meter\_type\_id

group by FLO.floor\_id

HAVING COUNT(DISTINCT M\_T.meter\_type\_id) = (

SELECT COUNT(meter\_type\_id) AS c FROM meter\_type

);

Select floor.\*

from floor

where not exists

(select \* from meter\_type

where not exists

(Select \* from floor as FLO

join flat as FLA on FLO.floor\_id = FLA.floor\_id

JOIN meter AS M ON FLA.flat\_id = M.flat\_id

where FLO.floor\_id = floor.floor\_id and meter\_type.meter\_type\_id = M.meter\_type\_id));

ВАРИАЦИИ ЗАПРОСА Ж)

SELECT O.\*

FROM owner AS O

JOIN owner\_flat AS O\_F ON O.owner\_id = O\_F.owner\_id

JOIN flat AS F ON F.flat\_id = O\_F.flat\_id

WHERE F.number\_of\_rooms = 1 AND O.owner\_id NOT IN

(SELECT O.owner\_id

FROM owner AS O

JOIN owner\_flat AS O\_F ON O.owner\_id = O\_F.owner\_id

JOIN flat AS F ON F.flat\_id = O\_F.flat\_id

WHERE F.number\_of\_rooms = 2);

/\*

SELECT O.\*

FROM owner AS O

JOIN owner\_flat AS O\_F ON O.owner\_id = O\_F.owner\_id

JOIN flat AS F ON F.flat\_id = O\_F.flat\_id

WHERE F.number\_of\_rooms = 1 EXCEPT

SELECT O.\*

FROM owner AS O

JOIN owner\_flat AS O\_F ON O.owner\_id = O\_F.owner\_id

JOIN flat AS F ON F.flat\_id = O\_F.flat\_id

WHERE F.number\_of\_rooms = 2;

\*/

SELECT O.\*

FROM owner AS O

JOIN owner\_flat AS O\_F ON O.owner\_id = O\_F.owner\_id

JOIN flat AS F ON F.flat\_id = O\_F.flat\_id

LEFT JOIN

(SELECT O.\*

FROM owner AS O

JOIN owner\_flat AS O\_F ON O.owner\_id = O\_F.owner\_id

JOIN flat AS F ON F.flat\_id = O\_F.flat\_id

WHERE F.number\_of\_rooms = 2

)q ON O.owner\_id = q.owner\_id

WHERE F.number\_of\_rooms = 1 AND q.owner\_id IS NULL;

Наборы данных, возвращаемые запросами:

