**Задание 1:**

SELECT DISTINCT s.first\_name, s.last\_name

FROM Schedule sch

INNER JOIN Teacher t ON sch.teacher = t.id

INNER JOIN Student\_in\_class sic ON sch.class = sic.class

INNER JOIN Student s ON sic.student = s.id

WHERE s.middle\_name IS NULL

AND t.first\_name = 'Bogdan'

AND t.last\_name = 'Moiseev'

AND t.middle\_name = 'Romanovich';

**Задание 2:**

SELECT s.date, tp.start\_pair, tp.end\_pair, s.number\_pair, COUNT(DISTINCT c.name) as classes\_count

FROM Schedule s

JOIN Timepair tp ON s.number\_pair = tp.id

JOIN Teacher t ON s.teacher = t.id

JOIN Subject su ON s.subject = su.id

JOIN Class c ON s.class = c.id

WHERE t.first\_name = 'Andrej' AND t.last\_name = 'Evseev'

GROUP BY s.date, s.number\_pair

HAVING COUNT(DISTINCT c.name) > 1;

**Задание 3:**

SELECT COUNT(\*) AS lesson\_count

FROM Schedule s

JOIN Class c ON s.class = c.id

WHERE c.name LIKE '%A' AND s.date BETWEEN '2019-09-01' AND '2019-09-30';

**Задание 4:**

SELECT su.name AS subject\_name, c.name AS class\_name, ROUND(SUM(TIME\_TO\_SEC(TIMEDIFF(tp.end\_pair, tp.start\_pair)))/3600, 1) AS total\_hours

FROM Schedule s

JOIN Timepair tp ON s.number\_pair = tp.id

JOIN Subject su ON s.subject = su.id

JOIN Class c ON s.class = c.id

WHERE su.name IN ('Russian language', 'English language')

GROUP BY su.name, c.name;

**Задание 5:**

SELECT 'student' AS type, CONCAT\_WS(' ', first\_name, middle\_name , last\_name) AS full\_name

FROM Student

UNION

SELECT 'teacher' AS type, CONCAT\_WS(' ', first\_name, middle\_name , last\_name) AS full\_name

FROM Teacher

ORDER BY type, full\_name;

Dashboard не поместился полностью в отклик, поскольку его размер 26 Мб. Его можно скачать по ссылке с моего гитхаба <https://github.com/akscent/internships/blob/7c3d60034cdb94333a727200aeabf364170f68c1/Biocad/summer2023/data_analyst/%D0%98%D1%80%D0%B8%D0%BD%D1%8F%D0%BA%D0%BE%D0%B2%20%D0%94%D0%B5%D0%BD%D0%B8%D1%81%20%D0%A1%D0%B5%D1%80%D0%B3%D0%B5%D0%B5%D0%B2%D0%B8%D1%87.pbix>

Для корректной работы также следует установить дополнения для R- и Python-скриптов. Кроме того, пакет дополнений находится по ссылке:

<https://github.com/akscent/internships/blob/main/Biocad/summer2023/data_analyst/%D0%94%D0%BE%D0%BF%D0%BE%D0%BB%D0%BD%D0%B5%D0%BD%D0%B8%D1%8F%20%D0%B4%D0%BB%D1%8F%20PBI.7z>