Университет ИТМО

Факультет ФПИ и КТ

**Лабораторная работа №4**

По ИСиБД

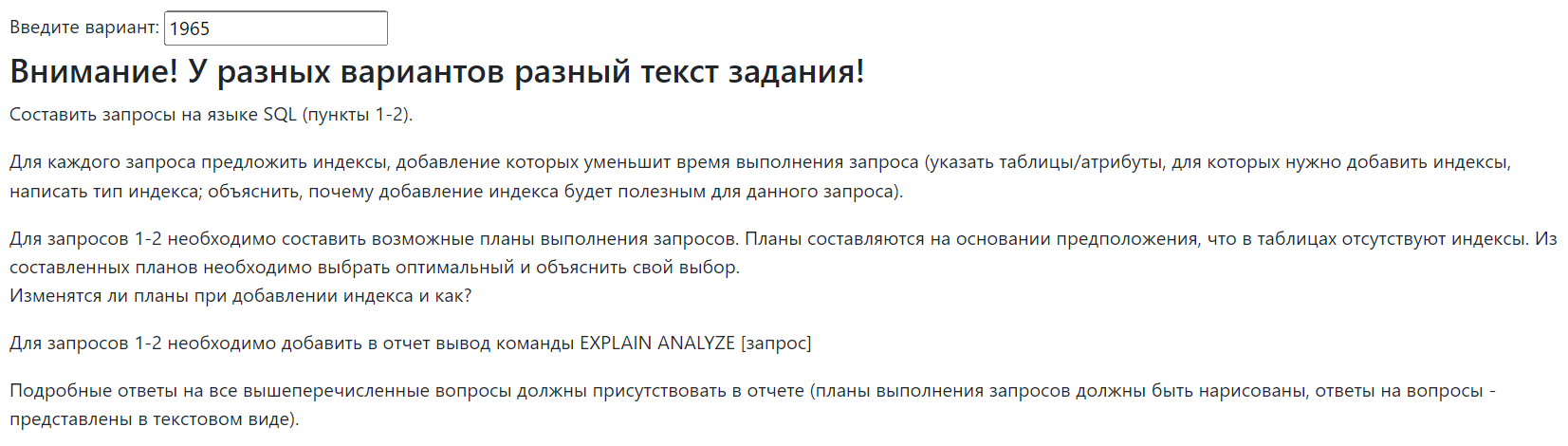
Вариант 1965

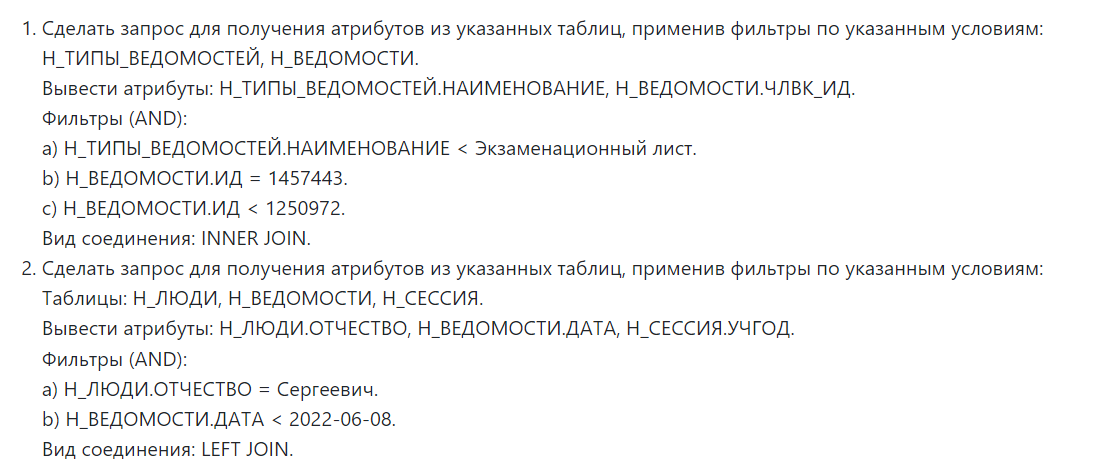
Выполнил: Никитин Е. А.

Группа: Р33111

Санкт-Петербург

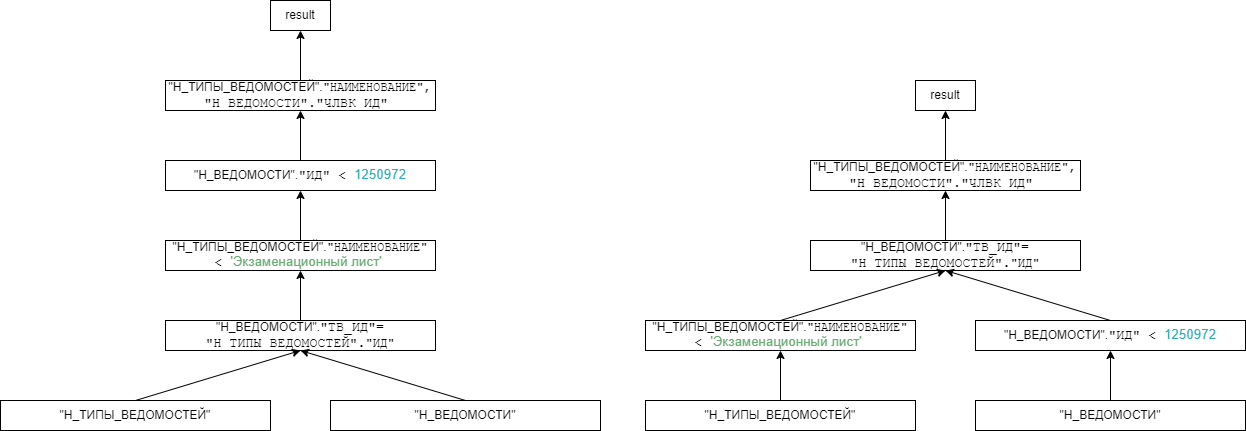
2023





## Первый запрос

SELECT "Н\_ТИПЫ\_ВЕДОМОСТЕЙ"."НАИМЕНОВАНИЕ", "Н\_ВЕДОМОСТИ"."ЧЛВК\_ИД" FROM "Н\_ВЕДОМОСТИ"  
JOIN "Н\_ТИПЫ\_ВЕДОМОСТЕЙ" ON "Н\_ВЕДОМОСТИ"."ТВ\_ИД"="Н\_ТИПЫ\_ВЕДОМОСТЕЙ"."ИД"  
WHERE "Н\_ТИПЫ\_ВЕДОМОСТЕЙ"."НАИМЕНОВАНИЕ" < 'Экзаменационный лист' AND "Н\_ВЕДОМОСТИ"."ИД" < 1250972;



Hash Join (cost=1.06..8090.94 rows=130883 width=30) (actual time=0.038..88.333 rows=178358 loops=1)

" Hash Cond: (""Н\_ВЕДОМОСТИ"".""ТВ\_ИД"" = ""Н\_ТИПЫ\_ВЕДОМОСТЕЙ"".""ИД"")"

" -> Seq Scan on ""Н\_ВЕДОМОСТИ"" (cost=0.00..6846.50 rows=196324 width=8) (actual time=0.012..37.661 rows=196305 loops=1)"

" Filter: (""ИД"" < 1250972)"

Rows Removed by Filter: 26135

-> Hash (cost=1.04..1.04 rows=2 width=30) (actual time=0.018..0.019 rows=2 loops=1)

Buckets: 1024 Batches: 1 Memory Usage: 9kB

" -> Seq Scan on ""Н\_ТИПЫ\_ВЕДОМОСТЕЙ"" (cost=0.00..1.04 rows=2 width=30) (actual time=0.005..0.007 rows=2 loops=1)"

" Filter: ((""НАИМЕНОВАНИЕ"")::text < 'Экзаменационный лист'::text)"

Rows Removed by Filter: 1

Planning Time: 0.266 ms

Execution Time: 96.720 ms

## Второй запрос

SELECT "Н\_ЛЮДИ"."ОТЧЕСТВО", "Н\_ВЕДОМОСТИ"."ДАТА", "Н\_СЕССИЯ"."УЧГОД" FROM "Н\_ЛЮДИ"  
LEFT JOIN "Н\_ВЕДОМОСТИ" ON "Н\_ЛЮДИ"."ИД"="Н\_ВЕДОМОСТИ"."ЧЛВК\_ИД"  
LEFT JOIN "Н\_СЕССИЯ" ON "Н\_ЛЮДИ"."ИД"="Н\_СЕССИЯ"."ЧЛВК\_ИД"  
WHERE "Н\_ЛЮДИ"."ОТЧЕСТВО" = 'Сергеевич' AND "Н\_ВЕДОМОСТИ"."ДАТА"::DATE < '2022-06-08';

Gather (cost=1292.23..7460.48 rows=5723 width=38) (actual time=2.186..35.456 rows=18926 loops=1)

Workers Planned: 2

Workers Launched: 2

-> Hash Join (cost=292.23..5888.18 rows=2385 width=38) (actual time=2.182..27.741 rows=6309 loops=3)

" Hash Cond: (""Н\_ВЕДОМОСТИ"".""ЧЛВК\_ИД"" = ""Н\_ЛЮДИ"".""ИД"")"

" -> Parallel Seq Scan on ""Н\_ВЕДОМОСТИ"" (cost=0.00..5456.25 rows=30895 width=12) (actual time=0.019..17.598 rows=74146 loops=3)"

" Filter: ((""ДАТА"")::date < '2022-06-08'::date)"

Rows Removed by Filter: 1

-> Hash (cost=287.29..287.29 rows=395 width=34) (actual time=2.042..2.044 rows=498 loops=3)

Buckets: 1024 Batches: 1 Memory Usage: 37kB

-> Hash Right Join (cost=168.91..287.29 rows=395 width=34) (actual time=1.100..1.949 rows=498 loops=3)

" Hash Cond: (""Н\_СЕССИЯ"".""ЧЛВК\_ИД"" = ""Н\_ЛЮДИ"".""ИД"")"

" -> Seq Scan on ""Н\_СЕССИЯ"" (cost=0.00..108.52 rows=3752 width=14) (actual time=0.011..0.457 rows=3752 loops=3)"

-> Hash (cost=163.97..163.97 rows=395 width=24) (actual time=0.992..0.993 rows=395 loops=3)

Buckets: 1024 Batches: 1 Memory Usage: 30kB

" -> Seq Scan on ""Н\_ЛЮДИ"" (cost=0.00..163.97 rows=395 width=24) (actual time=0.041..0.912 rows=395 loops=3)"

" Filter: ((""ОТЧЕСТВО"")::text = 'Сергеевич'::text)"

Rows Removed by Filter: 4723

Planning Time: 0.448 ms

Execution Time: 36.412 ms