

**Задание 6**  
**Лим В. БПИ225**

**Задача 1:**

Заполним данными базу:

```
INSERT INTO "Publisher" ("PubName", "PubAddress") VALUES
('Publisher1', 'Moscow, Red Square 1'),
('Publisher2', 'St. Petersburg, Nevsky Prospect 10'),
('Publisher3', 'New York, 5th Avenue 500'),
('Publisher4', 'Berlin, Alexanderplatz 20'),
('Publisher5', 'London, Oxford Street 15'),
('Publisher6', 'Paris, Champs-Élysées 45'),
('Publisher7', 'Tokyo, Shibuya 8'),
('Publisher8', 'Sydney, George Street 35'),
('Publisher9', 'Rome, Via Nazionale 10'),
('Publisher10', 'Madrid, Gran Vía 25'),
('Publisher11', 'Moscow, Tverskaya 5'),
('Publisher12', 'St. Petersburg, Neva Embankment 100'),
('Publisher13', 'New York, Park Avenue 450'),
('Publisher14', 'Berlin, Unter den Linden 50'),
('Publisher15', 'London, Piccadilly Circus 5'),
('Publisher16', 'Paris, Rue de Rivoli 30'),
('Publisher17', 'Tokyo, Ginza 2'),
('Publisher18', 'Sydney, Pitt Street 20'),
('Publisher19', 'Rome, Piazza di Spagna 1'),
('Publisher20', 'Madrid, Paseo de la Castellana 120');

INSERT INTO "Reader" ("ID", "LastName", "FirstName",
"Address", "BirthDate") VALUES
(1, 'Ivanov', 'Ivan', 'Moscow, Tverskaya 3', '1985-03-15'),
(2, 'Petrov', 'Petr', 'Moscow, Arbat 15', '1990-06-20'),
(3, 'Sidorov', 'Sidr', 'Moscow, Pushkin Square 7',
'1980-01-25'),
(4, 'Vasiliev', 'Vladimir', 'St. Petersburg, Nevsky Prospect
8', '1992-11-11'),
(5, 'Dmitriev', 'Dmitry', 'St. Petersburg, Rubinstein Street
18', '1982-05-05'),
(6, 'Kuznetsov', 'Nikolai', 'New York, Brooklyn 100',
'1989-12-01'),
(7, 'Morozov', 'Alexey', 'Berlin, Friedrichstrasse 10',
'1987-08-16'),
```

```
(8, 'Smirnov', 'Mikhail', 'London, Regent Street 55',
'1995-07-21'),
(9, 'Stepanova', 'Anastasia', 'Paris, Boulevard Saint-Germain
12', '1984-09-10'),
(10, 'Karpov', 'Andrei', 'Tokyo, Akihabara 7', '1988-03-03'),
(11, 'Gorshkov', 'Evgeny', 'Moscow, Sadovaya 20',
'1991-11-11'),
(12, 'Romanov', 'Maksim', 'St. Petersburg, Vosstaniya Street
21', '1993-02-22'),
(13, 'Novikov', 'Sergey', 'New York, Manhattan 200',
'1983-07-30'),
(14, 'Petrova', 'Irina', 'Berlin, Kreuzberg 5', '1981-04-25'),
(15, 'Tikhonova', 'Elena', 'London, Baker Street 22',
'1990-10-09'),
(16, 'Sokolov', 'Dmitry', 'Paris, Rue Saint-Honoré 45',
'1986-01-11'),
(17, 'Alekseev', 'Vladimir', 'Tokyo, Shinjuku 3',
'1989-02-05'),
(18, 'Zaharova', 'Svetlana', 'Sydney, Darling Harbour 12',
'1983-12-01'),
(19, 'Mikhailov', 'Vladislav', 'Rome, Via del Corso 18',
'1985-06-15'),
(20, 'Fedorova', 'Olga', 'Madrid, Plaza Mayor 7',
'1991-01-12');
```

```
INSERT INTO "Book" ("ISBN", "Title", "Author", "PagesNum",
"PubYear", "PubName") VALUES
('978-1-234-56789-0', 'Book Title 1', 'Author A', 300, 2010,
'Publisher1'),
('978-1-234-56789-1', 'Book Title 2', 'Author B', 450, 2015,
'Publisher2'),
('978-1-234-56789-2', 'Book Title 3', 'Author C', 210, 2018,
'Publisher3'),
('978-1-234-56789-3', 'Book Title 4', 'Author A', 320, 2020,
'Publisher4'),
('978-1-234-56789-4', 'Book Title 5', 'Author D', 500, 2019,
'Publisher5'),
('978-1-234-56789-5', 'Book Title 6', 'Author E', 280, 2012,
'Publisher6'),
('978-1-234-56789-6', 'Book Title 7', 'Author F', 360, 2017,
'Publisher7'),
('978-1-234-56789-7', 'Book Title 8', 'Author G', 220, 2013,
'Publisher8');
```

```
(
    '978-1-234-56789-8', 'Book Title 9', 'Author H', 480, 2021,
    'Publisher9'),
('978-1-234-56789-9', 'Book Title 10', 'Author I', 390, 2010,
    'Publisher10'),
('978-1-234-56789-10', 'Book Title 11', 'Author J', 150, 2008,
    'Publisher11'),
('978-1-234-56789-11', 'Book Title 12', 'Author A', 310, 2016,
    'Publisher12'),
('978-1-234-56789-12', 'Book Title 13', 'Author K', 270, 2014,
    'Publisher13'),
('978-1-234-56789-13', 'Book Title 14', 'Author L', 430, 2011,
    'Publisher14'),
('978-1-234-56789-14', 'Book Title 15', 'Author M', 350, 2020,
    'Publisher15'),
('978-1-234-56789-15', 'Book Title 16', 'Author N', 460, 2019,
    'Publisher16'),
('978-1-234-56789-16', 'Book Title 17', 'Author O', 280, 2018,
    'Publisher17'),
('978-1-234-56789-17', 'Book Title 18', 'Author P', 500, 2017,
    'Publisher18'),
('978-1-234-56789-18', 'Book Title 19', 'Author Q', 300, 2015,
    'Publisher19'),
('978-1-234-56789-19', 'Book Title 20', 'Author R', 320, 2021,
    'Publisher20');
```

```
INSERT INTO "Category" ("CategoryName", "ParentCat") VALUES
('Fiction', NULL),
('Science Fiction', 'Fiction'),
('Fantasy', 'Fiction'),
('Biography', NULL),
('History', NULL),
('Science', NULL),
('Romance', NULL),
('Mystery', NULL),
('Adventure', 'Fiction'),
('Thriller', 'Mystery');
```

```
INSERT INTO "Copy" ("ISBN", "CopyNumber", "ShelfPosition")
VALUES
('978-1-234-56789-0', 1, 'A1'),
('978-1-234-56789-1', 1, 'B2'),
('978-1-234-56789-2', 1, 'C3'),
('978-1-234-56789-3', 1, 'D4'),
('978-1-234-56789-4', 1, 'E5'),
```

```
('978-1-234-56789-5', 1, 'F6'),
('978-1-234-56789-6', 1, 'G7'),
('978-1-234-56789-7', 1, 'H8'),
('978-1-234-56789-8', 1, 'I9'),
('978-1-234-56789-9', 1, 'J10'),
('978-1-234-56789-10', 1, 'K11'),
('978-1-234-56789-11', 1, 'L12'),
('978-1-234-56789-12', 1, 'M13'),
('978-1-234-56789-13', 1, 'N14'),
('978-1-234-56789-14', 1, 'O15'),
('978-1-234-56789-15', 1, 'P16'),
('978-1-234-56789-16', 1, 'Q17'),
('978-1-234-56789-17', 1, 'R18'),
('978-1-234-56789-18', 1, 'S19'),
('978-1-234-56789-19', 1, 'T20');
```

```
INSERT INTO "Borrowing" ("ReaderNr", "ISBN", "CopyNumber",
"ReturnDate") VALUES
```

```
(1, '978-1-234-56789-0', 1, '2024-12-10'),
(2, '978-1-234-56789-1', 1, '2024-12-11'),
(3, '978-1-234-56789-2', 1, '2024-12-12'),
(4, '978-1-234-56789-3', 1, '2024-12-13'),
(5, '978-1-234-56789-4', 1, '2024-12-14'),
(6, '978-1-234-56789-5', 1, '2024-12-15'),
(7, '978-1-234-56789-6', 1, '2024-12-16'),
(8, '978-1-234-56789-7', 1, '2024-12-17'),
(9, '978-1-234-56789-8', 1, '2024-12-18'),
(10, '978-1-234-56789-9', 1, '2024-12-19'),
(11, '978-1-234-56789-10', 1, '2024-12-20'),
(12, '978-1-234-56789-11', 1, '2024-12-21'),
(13, '978-1-234-56789-12', 1, '2024-12-22'),
(14, '978-1-234-56789-13', 1, '2024-12-23'),
(15, '978-1-234-56789-14', 1, '2024-12-24'),
(16, '978-1-234-56789-15', 1, '2024-12-25'),
(17, '978-1-234-56789-16', 1, '2024-12-26'),
(18, '978-1-234-56789-17', 1, '2024-12-27'),
(19, '978-1-234-56789-18', 1, '2024-12-28'),
(20, '978-1-234-56789-19', 1, '2024-12-29');
```

```
INSERT INTO "BookCat" ("ISBN", "CategoryName") VALUES
```

```
('978-1-234-56789-0', 'Fiction'),
('978-1-234-56789-1', 'Science Fiction'),
('978-1-234-56789-2', 'Fantasy'),
('978-1-234-56789-3', 'Biography'),
```

```
('978-1-234-56789-4', 'History'),  
( '978-1-234-56789-5', 'Science'),  
( '978-1-234-56789-6', 'Romance'),  
( '978-1-234-56789-7', 'Mystery'),  
( '978-1-234-56789-8', 'Adventure'),  
( '978-1-234-56789-9', 'Thriller'),  
( '978-1-234-56789-10', 'Fiction'),  
( '978-1-234-56789-11', 'Science Fiction'),  
( '978-1-234-56789-12', 'Fantasy'),  
( '978-1-234-56789-13', 'Biography'),  
( '978-1-234-56789-14', 'History'),  
( '978-1-234-56789-15', 'Science'),  
( '978-1-234-56789-16', 'Romance'),  
( '978-1-234-56789-17', 'Mystery'),  
( '978-1-234-56789-18', 'Adventure'),  
( '978-1-234-56789-19', 'Thriller');
```

**1. Показать все названия книг вместе с именами издателей.**

**У нас 20 книг и у каждой один издатель.**

**Запрос:**

```
SELECT b."Title", p."PubName"  
FROM "Book" b  
JOIN "Publisher" p ON b."PubName" = p."PubName";
```

**Результаты:**

146 ✓	SELECT b."Title", p."PubName"
147	FROM "Book" b
148	JOIN "Publisher" p 1..n<->1: ON b."PubName" = p."PubName";

Output		Result 3 ×
	"Title" ▾	"PubName" ▾
1	Book Title 1	Publisher1
2	Book Title 2	Publisher2
3	Book Title 3	Publisher3
4	Book Title 4	Publisher4
5	Book Title 5	Publisher5
6	Book Title 6	Publisher6
7	Book Title 7	Publisher7
8	Book Title 8	Publisher8
9	Book Title 9	Publisher9
10	Book Title 10	Publisher10
11	Book Title 11	Publisher11
12	Book Title 12	Publisher12
13	Book Title 13	Publisher13
14	Book Title 14	Publisher14
15	Book Title 15	Publisher15
16	Book Title 16	Publisher16
17	Book Title 17	Publisher17
18	Book Title 18	Publisher18
19	Book Title 19	Publisher19
20	Book Title 20	Publisher20

**2. В какой книге наибольшее количество страниц?**

**У нас две книги по 500 страниц.**

**Запрос:**

```
SELECT "Title"
FROM "Book"
WHERE "PagesNum" = (SELECT MAX("PagesNum") FROM "Book");
```

**Результат:**

```
150 ✓ SELECT "Title"
151 FROM "Book"
152 WHERE "PagesNum" = (SELECT MAX("PagesNum") FROM "Book");
153
154
```

Output Libdb.public.Book x

	"Title" ▾
1	Book Title 5
2	Book Title 18

### 3. Какие авторы написали более 5 книг?

У нас нет тех, кто написал больше 5 книг.

Запрос:

```
SELECT "Author"
FROM "Book"
GROUP BY "Author"
HAVING COUNT("ISBN") > 5;
```

Результат:

```
154 ✓ SELECT "Author"
155 FROM "Book"
156 GROUP BY "Author"
157 HAVING COUNT("ISBN") > 5;
158
```

Output Libdb.public.Book x

	"Author" ▾
--	------------

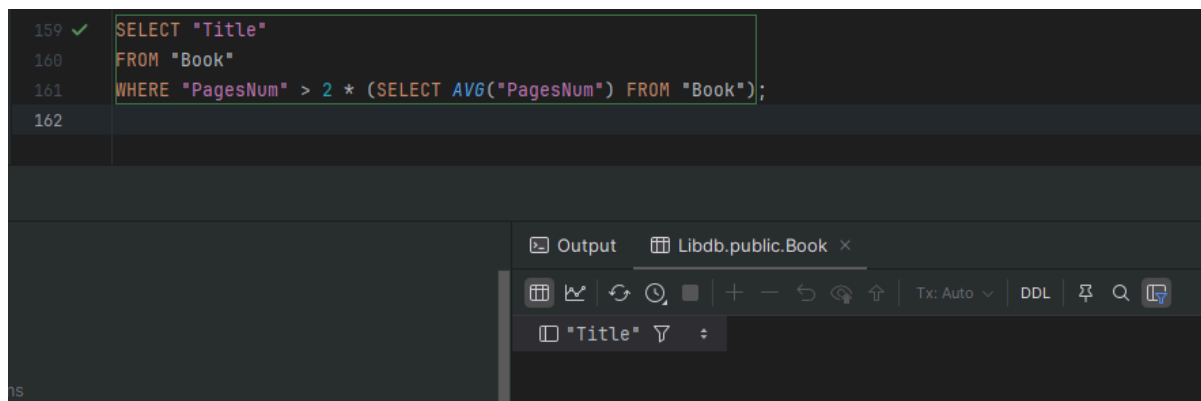
**4. В каких книгах более чем в два раза больше страниц, чем среднее количество страниц для всех книг?**

У нас нет книг, в которых количество страниц больше в два раза, чем среднее, потому что среднее больше 250, а максимальное количество у нас 500.

**Запрос:**

```
SELECT "Title"  
FROM "Book"  
WHERE "PagesNum" > 2 * (SELECT AVG("PagesNum") FROM "Book");
```

**Результат:**



**5. Какие категории содержат подкатегории?**

У нас такие категории, остальное - подкатегории наших:



	CategoryName	ParentCat
1	Fiction	<null>
2	Science Fiction	Fiction
3	Fantasy	Fiction
4	Biography	<null>
5	History	<null>
6	Science	<null>
7	Romance	<null>
8	Mystery	<null>
9	Adventure	Fiction
10	Thriller	Mystery

	ISBN	CategoryName
11	978-1-234-56789-10	Fiction
12	978-1-234-56789-11	Science Fiction
13	978-1-234-56789-12	Fantasy
14	978-1-234-56789-13	Biography
15	978-1-234-56789-14	History
16	978-1-234-56789-15	Science
17	978-1-234-56789-16	Romance
18	978-1-234-56789-17	Mystery
19	978-1-234-56789-18	Adventure
20	978-1-234-56789-19	Thriller

### Запрос:

```
SELECT "CategoryName"
FROM "Category"
WHERE "CategoryName" IN (SELECT "ParentCat" FROM "Category" WHERE
"ParentCat" IS NOT NULL);
```

### Результат:

```
162
163 ✓ SELECT "CategoryName"
164 FROM "Category"
165 WHERE "CategoryName" IN (SELECT "ParentCat" FROM "Category" WHERE "ParentCat" IS NOT NULL);
166
```

CategoryName
1 Fiction
2 Mystery

6. У какого автора написано максимальное количество книг?

Упорядочим по количеству и выберем первого.

Запрос:

```
SELECT "Author"
FROM "Book"
GROUP BY "Author"
ORDER BY COUNT("ISBN") DESC
LIMIT 1;
```

Результат:

```
167 ✓ SELECT "Author"
168 FROM "Book"
169 GROUP BY "Author"
170 ORDER BY COUNT("ISBN") DESC
171 LIMIT 1;
172
```

Author
1 Author A

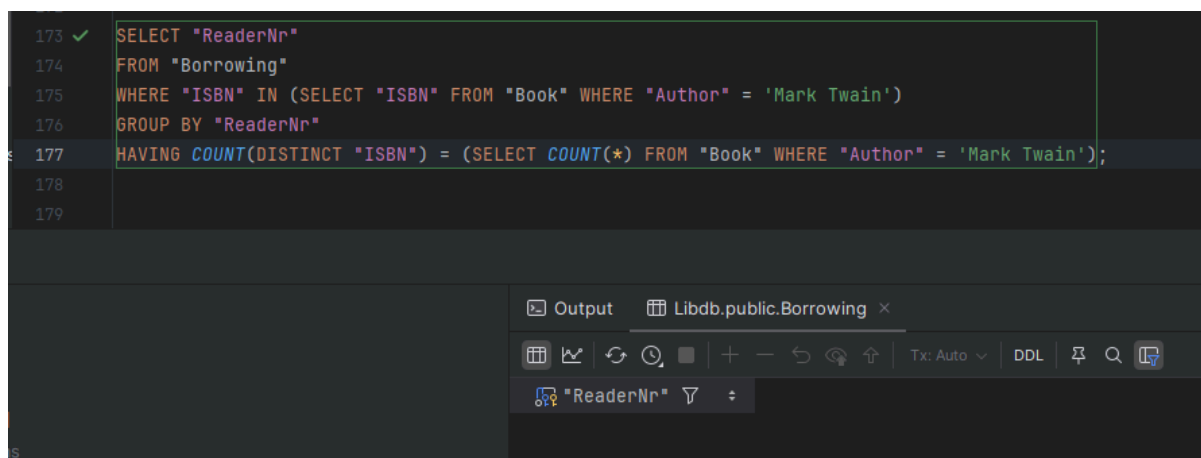
7. Какие читатели забронировали все книги (не копии), написанные "Марком Твеном"?

Нет у нас таких, к сожалению...

**Запрос:**

```
SELECT "ReaderNr"
FROM "Borrowing"
WHERE "ISBN" IN (SELECT "ISBN" FROM "Book" WHERE "Author" = 'Mark Twain')
GROUP BY "ReaderNr"
HAVING COUNT(DISTINCT "ISBN") = (SELECT COUNT(*) FROM "Book" WHERE
"Author" = 'Mark Twain');
```

**Результат:**



```
173 ✓ SELECT "ReaderNr"
174 FROM "Borrowing"
175 WHERE "ISBN" IN (SELECT "ISBN" FROM "Book" WHERE "Author" = 'Mark Twain')
176 GROUP BY "ReaderNr"
177 HAVING COUNT(DISTINCT "ISBN") = (SELECT COUNT(*) FROM "Book" WHERE "Author" = 'Mark Twain');
178
179
```

**8. Какие книги имеют более одной копии?**

Все у нас по одной копии имеют.

**Запрос:**

```
SELECT "ISBN"
FROM "Copy"
GROUP BY "ISBN"
HAVING COUNT("CopyNumber") > 1;
```

**Результат:**

```
178
179 ✓ SELECT "ISBN"
180 FROM "Copy"
181 GROUP BY "ISBN"
182 HAVING COUNT("CopyNumber") > 1;|
183
184
```

Output Libdb.public.Copy ×

Grid View Refresh History Stop + - Undo Redo Tx: Auto DDL Filter Search

ISBN

77 ms

## 9. ТОП 10 самых старых книг.

Упорядочиваем книги по году публикации и берем первые 10.

**Запрос:**

```
SELECT "Title", "PubYear"
FROM "Book"
ORDER BY "PubYear"
LIMIT 10;
```

**Результат:**

184	✓	SELECT "Title", "PubYear"
185		FROM "Book"
186		ORDER BY "PubYear"
187		LIMIT 10;
188		
189		

Output		Libdb.public.Book
	"Title" ▾	"PubYear" ▾
1	Book Title 11	2008
2	Book Title 1	2010
3	Book Title 10	2010
4	Book Title 14	2011
5	Book Title 6	2012
6	Book Title 8	2013
7	Book Title 13	2014
8	Book Title 19	2015
9	Book Title 2	2015
10	Book Title 12	2016

**10. Перечислите все категории в категории “Спорт” (с любым уровнем вложенности).**

**У нас**

**Запрос:**

```
WITH RECURSIVE CategoryHierarchy AS (
  SELECT "CategoryName", "ParentCat"
  FROM "Category"
  WHERE "CategoryName" = 'Спорт'
  UNION ALL
  SELECT c."CategoryName", c."ParentCat"
  FROM "Category" c
  INNER JOIN CategoryHierarchy ch ON c."ParentCat" = ch."CategoryName"
)
SELECT "CategoryName"
FROM CategoryHierarchy;
```

**Результат:**

```
189 ✓ WITH RECURSIVE CategoryHierarchy AS (  
190     SELECT "CategoryName", "ParentCat"  
191     FROM "Category"  
192     WHERE "CategoryName" = 'Спорт'  
193     UNION ALL  
194     SELECT CategoryName c."CategoryName", ParentCat c."ParentCat"  
195     FROM "Category" c  
196     INNER JOIN CategoryHierarchy ch ON c."ParentCat" = ch."CategoryName"  
197 )  
198 SELECT "CategoryName"  
199 FROM CategoryHierarchy;  
200  
201
```

Output Libdb.public.Category ×

Tx: Auto DDL

"CategoryName"
----------------

У нас категории “Спорт” нет, но можем для Mystery запустить:

```
189 ✓ WITH RECURSIVE CategoryHierarchy AS (  
190     SELECT "CategoryName", "ParentCat"  
191     FROM "Category"  
192     WHERE "CategoryName" = 'Mystery'  
193     UNION ALL  
194     SELECT CategoryName c."CategoryName", ParentCat c."ParentCat"  
195     FROM "Category" c  
196     INNER JOIN CategoryHierarchy ch ON c."ParentCat" = ch."CategoryName"  
197 )  
198 SELECT "CategoryName"  
199 FROM CategoryHierarchy;  
200  
201
```

Output Libdb.public.Category ×

Tx: Auto

"CategoryName"
1 Mystery
2 Thriller

## Задача 2:

1. Добавьте запись о бронировании читателем ‘Василеем Петровым’ книги с ISBN 123456 и номером копии 4.

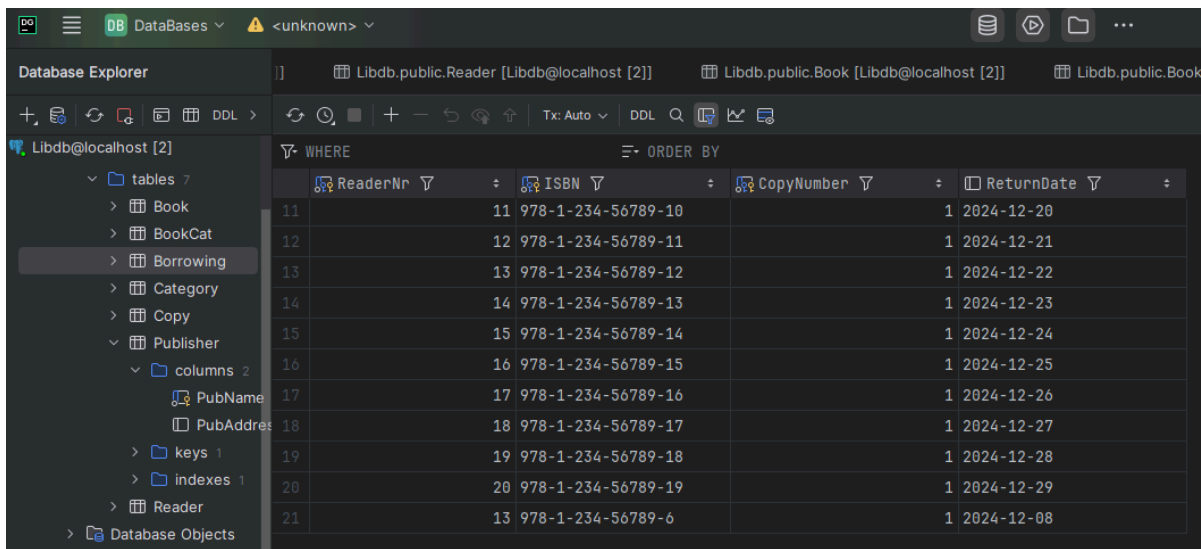
Сделаем то же самое, только для какого-нибудь человека, который есть в бд и книгу и копию, которая тоже есть в бд.

Запрос:

```
WITH reader AS (  
  SELECT "ID"  
  FROM "Reader"  
  WHERE "LastName" = 'Novikov' AND "FirstName" = 'Sergey'  
)
```


```
INSERT INTO "Borrowing" ("ReaderNr", "ISBN", "CopyNumber", "ReturnDate")  
SELECT "ID", '978-1-234-56789-6', 1, '2024-12-08' FROM reader;
```

Результат:



ReaderNr	ISBN	CopyNumber	ReturnDate
11	978-1-234-56789-10	1	2024-12-20
12	978-1-234-56789-11	1	2024-12-21
13	978-1-234-56789-12	1	2024-12-22
14	978-1-234-56789-13	1	2024-12-23
15	978-1-234-56789-14	1	2024-12-24
16	978-1-234-56789-15	1	2024-12-25
17	978-1-234-56789-16	1	2024-12-26
18	978-1-234-56789-17	1	2024-12-27
19	978-1-234-56789-18	1	2024-12-28
20	978-1-234-56789-19	1	2024-12-29
21	978-1-234-56789-6	1	2024-12-08

У нас внизу добавилась запись. У Novikov Sergey id=13:



ID	LastName	FirstName	Address	BirthDate
10	Karpov	Andrei	Tokyo, Akihabara 7	1988-03-03
11	Gorshkov	Evgeny	Moscow, Sadovaya 20	1991-11-11
12	Romanov	Maksim	St. Petersburg, Vosstaniya Street 21	1993-02-22
13	Novikov	Sergey	New York, Manhattan 200	1983-07-30
14	Petrova	Irina	Berlin, Kreuzberg 5	1981-04-25
15	Tikhonova	Elena	London, Baker Street 22	1990-10-09
16	Sokolov	Dmitry	Paris, Rue Saint-Honoré 45	1986-01-11
17	Alekseev	Vladimir	Tokyo, Shinjuku 3	1989-02-05
18	Zaharova	Svetlana	Sydney, Darling Harbour 12	1983-12-01
19	Mikhailov	Vladislav	Rome, Via del Corso 18	1985-06-15
20	Fedorova	Olga	Madrid, Plaza Mayor 7	1991-01-12

2. Удалить все книги, год публикации которых превышает 2000 год.

Думаю лучше взять 2010, чтобы не удалять все.

Запрос:

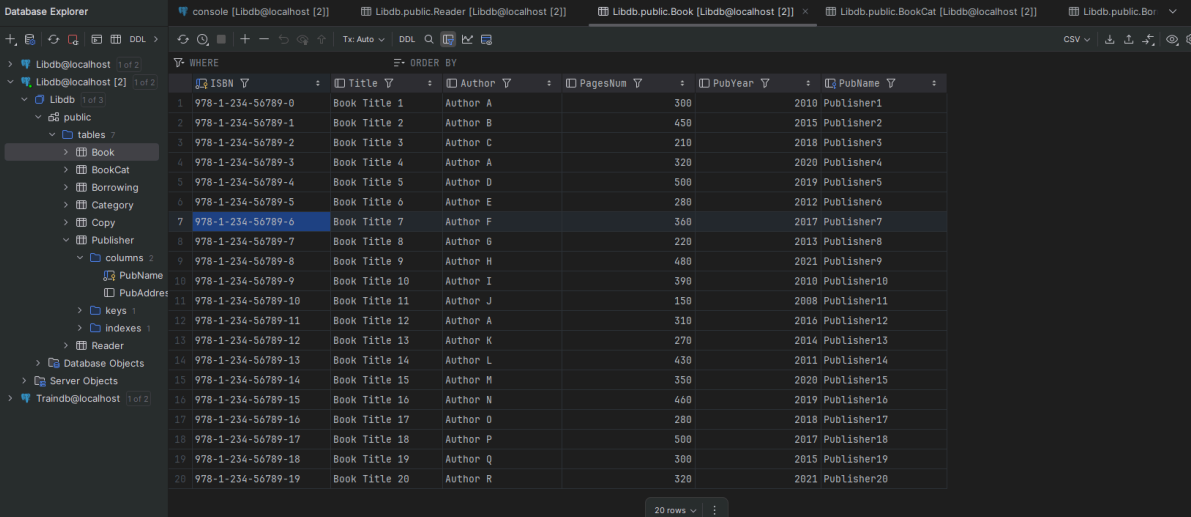
```
DELETE FROM "Borrowing" WHERE "ISBN" IN (SELECT "ISBN" FROM "Book" WHERE "PubYear" > 2010);
```

```
DELETE FROM "Copy" WHERE "ISBN" IN (SELECT "ISBN" FROM "Book" WHERE "PubYear" > 2010);
```

```
DELETE FROM "BookCat"  
WHERE "ISBN" IN (SELECT "ISBN" FROM "Book" WHERE "PubYear" > 2010);
```

```
DELETE FROM "Book"  
WHERE "PubYear" > 2010;
```

До удаления:



ISBN	Title	Author	PagesNum	PubYear	PubName
978-1-234-56789-0	Book Title 1	Author A	300	2010	Publisher1
978-1-234-56789-1	Book Title 2	Author B	450	2015	Publisher2
978-1-234-56789-2	Book Title 3	Author C	210	2018	Publisher3
978-1-234-56789-3	Book Title 4	Author A	320	2020	Publisher4
978-1-234-56789-4	Book Title 5	Author D	500	2019	Publisher5
978-1-234-56789-5	Book Title 6	Author E	280	2012	Publisher6
978-1-234-56789-6	Book Title 7	Author F	360	2017	Publisher7
978-1-234-56789-7	Book Title 8	Author G	220	2013	Publisher8
978-1-234-56789-8	Book Title 9	Author H	480	2021	Publisher9
978-1-234-56789-9	Book Title 10	Author I	390	2010	Publisher10
978-1-234-56789-10	Book Title 11	Author J	150	2008	Publisher11
978-1-234-56789-11	Book Title 12	Author A	310	2016	Publisher12
978-1-234-56789-12	Book Title 13	Author K	270	2014	Publisher13
978-1-234-56789-13	Book Title 14	Author L	430	2011	Publisher14
978-1-234-56789-14	Book Title 15	Author M	350	2020	Publisher15
978-1-234-56789-15	Book Title 16	Author N	460	2019	Publisher16
978-1-234-56789-16	Book Title 17	Author O	280	2018	Publisher17
978-1-234-56789-17	Book Title 18	Author P	500	2017	Publisher18
978-1-234-56789-18	Book Title 19	Author Q	300	2015	Publisher19
978-1-234-56789-19	Book Title 20	Author R	320	2021	Publisher20

После удаления:



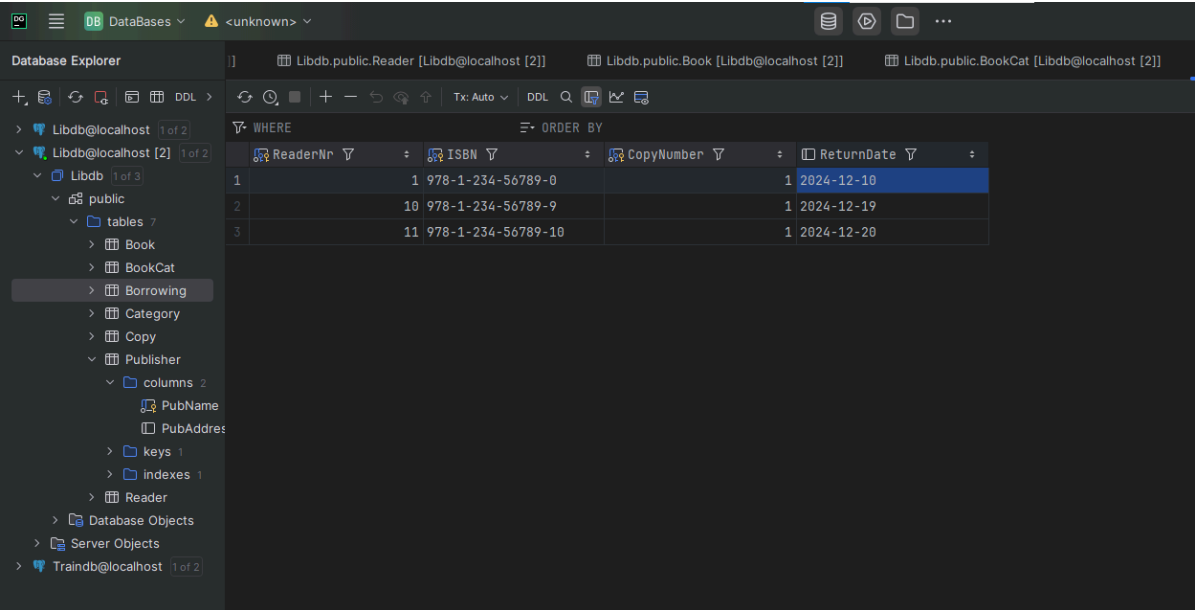
ISBN	Title	Author	PagesNum	PubYear	PubName
978-1-234-56789-0	Book Title 1	Author A	300	2010	Publisher1
978-1-234-56789-9	Book Title 10	Author I	390	2010	Publisher10
978-1-234-56789-10	Book Title 11	Author J	150	2008	Publisher11

**3. Измените дату возврата для всех книг категории "Базы данных", начиная с 01.01.2016, чтобы они были в заимствовании на 30 дней дольше.**

**Запрос:**

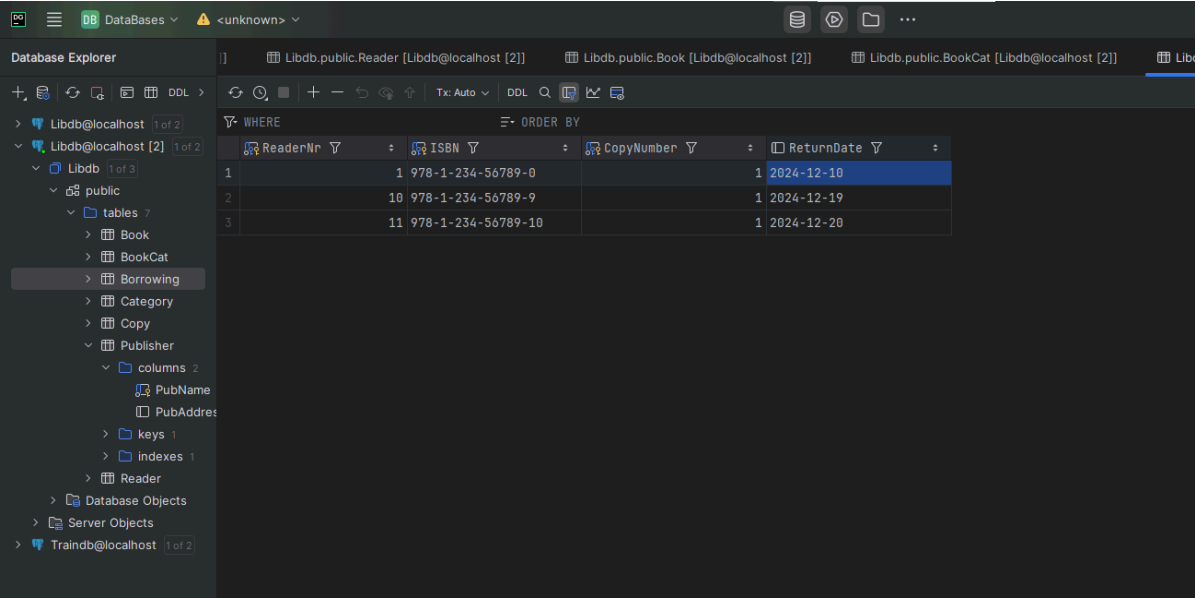
```
WITH BooksWithCategory AS (
    SELECT b."ISBN"
    FROM "Book" b
    JOIN "BookCat" bc ON b."ISBN" = bc."ISBN"
    WHERE bc."CategoryName" = 'Fiction'
)
UPDATE "Borrowing" b
SET "ReturnDate" = "ReturnDate" + INTERVAL '30 days'
WHERE b."ISBN" IN (SELECT "ISBN" FROM BooksWithCategory)
AND b."ReturnDate" >= '2016-01-01';
```

**До продления:**



ReaderNr	ISBN	CopyNumber	ReturnDate
1	978-1-234-56789-0	1	2024-12-10
2	978-1-234-56789-9	1	2024-12-19
3	978-1-234-56789-10	1	2024-12-20

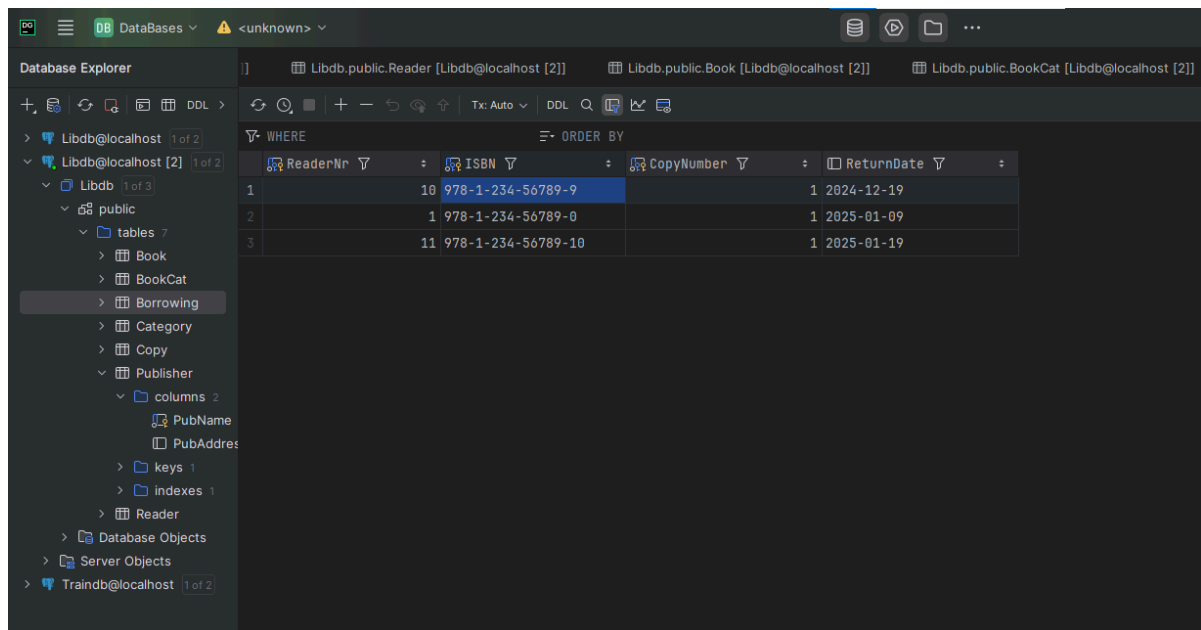
После продления:



ReaderNr	ISBN	CopyNumber	ReturnDate
1	978-1-234-56789-0	1	2024-12-10
2	978-1-234-56789-9	1	2024-12-19
3	978-1-234-56789-10	1	2024-12-20

Категории “Базы данных” нет, предлагаю запустить для “Fiction”:

После продления:



### Задача 3

1.

```
SELECT s.Name, s.MatrNr FROM Student s
WHERE NOT EXISTS (
SELECT * FROM Check c WHERE c.MatrNr = s.MatrNr AND c.Note >= 4.0 );
```

**Объяснение:**

Запрос возвращает имена и номера зачетов (MatrNr) всех студентов, которые не сдали ни одной лекции на оценку 4.0 и выше. Это студенты, которые либо не сдали экзамен вообще, либо получили оценки ниже 4.0 по всем предметам.

2.

```
( SELECT p.ProfNr, p.Name, sum(lec.Credit)
FROM Professor p, Lecture lec
WHERE p.ProfNr = lec.ProfNr
GROUP BY p.ProfNr, p.Name)
UNION
( SELECT p.ProfNr, p.Name, 0
FROM Professor p
WHERE NOT EXISTS (
SELECT * FROM Lecture lec WHERE lec.ProfNr = p.ProfNr ));
```

**Объяснение:**

**Этот запрос возвращает список профессоров с количеством кредитов, которые они преподавали:**

- **Профессоры, которые ведут лекции, получают общую сумму кредитов.**
- **Профессора, которые не ведут лекций, получают 0 в поле с суммой кредитов.**

**3.**

```
SELECT s.Name, p.Note  
FROM Student s, Lecture lec, Check c  
WHERE s.MatrNr = c.MatrNr AND lec.LectNr = c.LectNr AND c.Note >= 4  
AND c.Note >= ALL (  
SELECT c1.Note FROM Check c1 WHERE c1.MatrNr = c.MatrNr )
```

**Объяснение:**

**Запрос возвращает имена студентов и их оценки по конкретным экзаменам, где их оценка была наивысшей среди всех их оценок, и при этом эта оценка была 4 или выше.**