

Library management

MySQL Workbench

Local instance MySQL80 ×

File Edit View Query Database Server Tools Scripting Help

Navigator SQL File 3* ×

MANAGEMENT

- Server Status
- Client Connections
- Users and Privileges
- Status and System Variables
- Data Export
- Data Import/Restore

INSTANCE

- Startup / Shutdown
- Server Logs
- Options File

PERFORMANCE

- Dashboard
- Performance Reports
- Performance Schema Setup

Administration Schemas

```
1 • create database library;
2 • use library;
3 • create table student (std_id int , name varchar(50),dept varchar(50),
4   year int, primary key(std_id));
5 • create table books(book_id int , title varchar(100),author varchar(50),category varchar(50),
6   primary key(book_id));
7 • create table borrowed (br_id int , std_id int , book_id int , br_date date , return_date date,
8   primary key(br_id),foreign key(std_id) references student(std_id),
9   foreign key(book_id) references books(book_id));
10 • insert into student values(1, "Alice_johnson" , "computer_science" , 2),
11   (2,"Bob_smith" , "mechanical" , 3),
12   (3,"carol_white " , "computer_science" , 1),
13   (4,"David_brown" , "electrical" , 4);
14 • insert into books values(101,"database systems","Navathe","CS"),
15   (102,"operating systems","silberschatz","CS"),
16   (103,"physics fundamentals","Halliday","Science"),
17   (104,"Modern fiction","orwell","fiction");
18 • insert into borrowed values(1, 1, 101, "2024-01-10", "2024-03-20"),
19   (2, 2, 103, "2024-02-01",null),
20   (3, 3, 102, "2024-02-15", "2024-03-01"),
21   (4, 1, 104, "2024-03-10",null);
22
23 • select * from student where dept ='computer_science';
24
25 • select title from books b join borrowed br on br.book_id=b.book_id where return_date is null ;
26
27 • select distinct s.name from student s
28   join borrowed b on s.std_id = b.std_id
29   where b.br_date between '2024-02-01' and '2024-02-15';
30
31 • select s.std_id,s.name,count(b.book_id) as total_books_borrowed
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content: | Res Gr

	std_id	name	dept	year
▶	1	Alice_johnson	computer_science	2
*	3	carol_white	computer_science	1
*	NULL	NULL	NULL	NULL

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SQL

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join borrowed b on s.std_id = b.std_id
where b.br_date between '2024-02-01' and '2024-02-15';
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Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Result Grid

title
physics fundamentals
Modern fiction

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```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Result Grid

name
Bob_smith
carol_white

SQL File 3* x

Limit to 50000 rows

```

20      (3, 3, 102, "2024-02-15", "2024-03-01"),
21      (4, 1, 104, "2024-03-10", null);
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23 •   select * from student where dept = 'computer_science';
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28     join borrowed b on s.std_id = b.std_id
29     where b.br_date between '2024-02-01' and '2024-02-15';
30
31 •   select s.std_id,s.name,count(b.book_id) as total_books_borrowed
32     from student s join borrowed b  on s.std_id = b.std_id
33     group by s.std_id, s.name order by total_books_borrowed desc limit 50000;
34
35 •   select b.title,b.author,s.name from student s

```

Result Grid

std_id	name	total_books_borrowed
1	Alice_johnson	2
2	Bob_smith	1
3	carol_white	1

Result Grid

title	author	name
database systems	Navathe	Alice_johnson
operating systems	silberschatz	carol_white
physics fundamentals	Halliday	Bob_smith
Modern fiction	orwell	Alice_johnson

```

38
39 •   select b.title, b.author, count(br.book_id) as times_borrowed
40     from books b join borrowed br on b.book_id = br.book_id
41     group by b.book_id, b.title, b.author
42     having count(br.book_id) = (select max(book_count) from (select count(book_id) as book_count
43       from borrowed group by book_id) as counts);
44
45 •   select s.std_id, s.name from student s left join borrowed b on s.std_id = b.std_id

```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

	title	author	times_borrowed
▶	database systems	Navathe	1
	operating systems	silberschatz	1
	physics fundamentals	Halliday	1
	Modern fiction	orwell	1

```

45 •   select s.std_id, s.name from student s left join borrowed b on s.std_id = b.std_id
46     where b.book_id is null;
47
48 •   select category, count(book_id) as total_books from books group by category;

```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

	std_id	name
▶	4	David_brown

```

48 •   select category, count(book_id) as total_books from books group by category;
49

```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

	category	total_books
▶	CS	2
	Science	1
	fiction	1