

# **MYSQL Comprehensive Assessment**

## **Topic : Library Management System**

You are going to build a project based on Library Management System. It keeps track of all information about books in the library, their cost, status and total number of books available in the library.

Create a database named library and following TABLES in the database:

1. Branch
2. Employee
3. Books
4. Customer
5. IssueStatus
6. ReturnStatus

Attributes for the tables:

### 1. Branch

- Branch\_no - Set as PRIMARY KEY
- Manager\_Id
- Branch\_address
- Contact\_no

### 2. Employee

- Emp\_Id – Set as PRIMARY KEY
- Emp\_name
- Position
- Salary
- Branch\_no - Set as FOREIGN KEY and it refer Branch\_no in Branch table

### 3. Books

- ISBN - Set as PRIMARY KEY
- Book\_title
- Category
- Rental\_Price
- Status [Give yes if book available and no if book not available]
- Author
- Publisher

### 4. Customer

- Customer\_Id - Set as PRIMARY KEY
- Customer\_name
- Customer\_address
- Reg\_date

### 5. IssueStatus

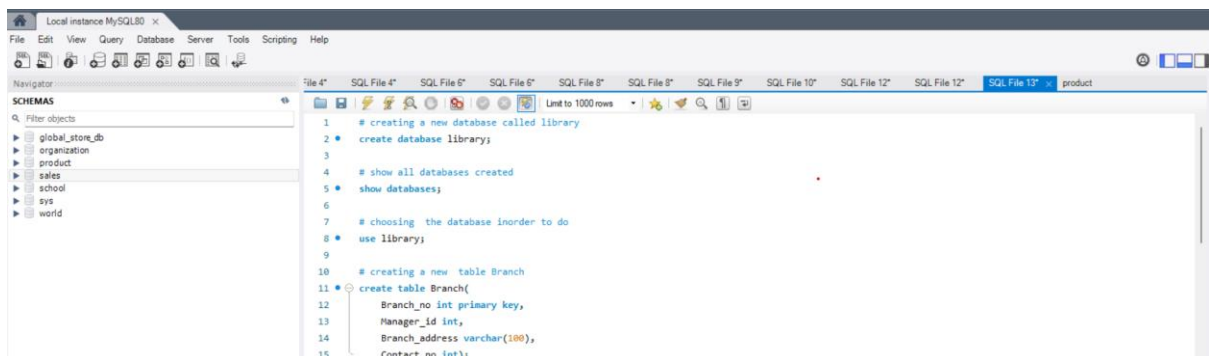
- Issue\_Id - Set as PRIMARY KEY
- Issued\_cust – Set as FOREIGN KEY and it refer customer\_id in CUSTOMER table Issued\_book\_name
- Issue\_date
- Isbn\_book – Set as FOREIGN KEY and it should refer isbn in BOOKS table

## 6. ReturnStatus

- Return\_Id - Set as PRIMARY KEY
- Return\_cust
- Return\_book\_name
- Return\_date
- Isbn\_book2 - Set as FOREIGN KEY and it should refer isbn in BOOKS table

Display all the tables and Write the queries for the following :

1. Retrieve the book title, category, and rental price of all available books.
2. List the employee names and their respective salaries in descending order of salary.
3. Retrieve the book titles and the corresponding customers who have issued those books.
4. Display the total count of books in each category.
5. Retrieve the employee names and their positions for the employees whose salaries are above Rs.50,000.
6. List the customer names who registered before 2022-01-01 and have not issued any books yet.
7. Display the branch numbers and the total count of employees in each branch.
8. Display the names of customers who have issued books in the month of June 2023.
9. Retrieve book\_title from book table containing history.
10. Retrieve the branch numbers along with the count of employees for branches having more than 5 employees
11. Retrieve the names of employees who manage branches and their respective branch addresses.
12. Display the names of customers who have issued books with a rental price higher than Rs. 25.



Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

- global\_store\_db
  - organization
  - product
  - sales
  - school
  - sys
  - world

Administration Schemas Information

Schema: sales

SQL File 4" SQL File 4" SQL File 6" SQL File 6" SQL File 8" SQL File 8" SQL File 9" SQL File 10" SQL File 12" SQL File 12" SQL File 13" x product

Limit to 1000 rows

```
17 # adding values to table branch
18 INSERT INTO Branch (Branch_no, Manager_id, Branch_address, Contact_no)
19 VALUES
20 (1, 10, 'nair street', 9557890),
21 (2, 11, 'hsr Street', 9554321),
22 (3, 12, 'kottayam po ', 8559876),
23 (4, 13, 'near MG Road', 7552468),
24 (5, 14, 'park street no02', 9551357),
25 (6, 15, 'palkad road ktm', 9558642),
26 (7, 16, 'pipeline elm', 7557531),
27 (8, 17, 'pkr road street', 7554680),
28 (9, 18, 'phlhp road 675', 8551353),
29 (10, 19, 'near RC street hsd', 9550246);
30
31 # displaying the table called branch
32 select * from Branch;
```

Result Grid

Branch_no	Manager_id	Branch_address	Contact_no
1	10	nair street	9557890
2	11	hsr Street	9554321
3	12	kottayam po	8559876
4	13	near MG Road	7552468
5	14	park street no02	9551357

Branch 2 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
6	15:35:37	INSERT INTO Branch (Branch_no, Manager_id, Branch_address, Contact_no) VALUES (...)	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0	0.016 sec
7	15:35:41	select * from Branch LIMIT 0, 1000	10 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

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Administration Schemas Information

Schema: sales

SQL File 4" SQL File 4" SQL File 6" SQL File 6" SQL File 8" SQL File 8" SQL File 9" SQL File 10" SQL File 12" SQL File 12" SQL File 13" x product

Limit to 1000 rows

```
17 # adding values to table branch
18 INSERT INTO Branch (Branch_no, Manager_id, Branch_address, Contact_no)
19 VALUES
20 (1, 10, 'nair street', 9557890),
21 (2, 11, 'hsr Street', 9554321),
22 (3, 12, 'kottayam po ', 8559876),
23 (4, 13, 'near MG Road', 7552468),
24 (5, 14, 'park street no02', 9551357),
25 (6, 15, 'palkad road ktm', 9558642),
26 (7, 16, 'pipeline elm', 7557531),
27 (8, 17, 'pkr road street', 7554680),
28 (9, 18, 'phlhp road 675', 8551353),
29 (10, 19, 'near RC street hsd', 9550246);
30
31 # displaying the table called branch
32 select * from Branch;
```

Result Grid

Branch_no	Manager_id	Branch_address	Contact_no
1	10	nair street	9557890
2	11	hsr Street	9554321
3	12	kottayam po	8559876
4	13	near MG Road	7552468
5	14	park street no02	9551357
6	15	palkad road ktm	9558642
7	16	pipeline elm	7557531
8	17	pkr road street	7554680
9	18	phlhp road 675	8551353
10	19	near RC street hsd	9550246

Branch 2 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
6	15:35:37	INSERT INTO Branch (Branch_no, Manager_id, Branch_address, Contact_no) VALUES (...)	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0	0.016 sec
7	15:35:41	select * from Branch LIMIT 0, 1000	10 row(s) returned	0.000 sec / 0.000 sec

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

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Administration Schemas

Information

Schema: sales

Query 1 SQL File 4" SQL File 4" SQL File 6" SQL File 6" SQL File 8" SQL File 8" SQL File 9" SQL File 10" SQL File 12" SQL File 12" SQL File 13" x product

```

34 # creating another table called employee
35 create table Employee(
36     Emp_id int primary key,
37     Emp_name varchar(50),
38     Position varchar(30),
39     Salary int,
40     Branch_no int,
41     foreign key(Branch_no) references Branch(Branch_no) on delete cascade);
42
43 # adding values to table employee
44 INSERT INTO Employee (Emp_id, Emp_name, Position, Salary, Branch_no)
45 VALUES
46     (101, 'Akshay peter', 'S-Manager', 90000, 1),
47     (102, 'John Joseph', 'Assistant trainer', 40000, 2),
48     (103, 'Adam chas', 'Clerk', 350000, 1),
49     (104, 'rexi mary', 'Assistant Manager', 600000, 4),
50     (105, 'syam nas', 'Manager', 70000, 1),
51     (106, 'Bruty ', 'p-assistant', 20000, 1),
52     (107, 'Gopika das', 'Assistant Manager', 550000, 7),
53     (108, 'Alex paul', 'Clerk', 50000, 2),
54     (109, 'Sony ', 'Clerk', 480000, 1),
55     (110, 'shalbin ks', 'Clerk', 42000, 1);
56
57 # displays table employee
58 select * from Employee;
  
```

Output

Action Output

#	Time	Action	Message	Duration / Fetch
8	15:41:34	create table Employee(Emp_id int primary key, Emp_name varchar(50), Position varchar(30), Salary int, Branch_no int, foreign key(Branch_no) references Branch(Branch_no) on delete cascade);	0 row(s) affected	0.078 sec
9	15:48:42	INSERT INTO Employee (Emp_id, Emp_name, Position, Salary, Branch_no) VALUES (101, 'Akshay peter', 'S-Manager', 90000, 1), (102, 'John Joseph', 'Assistant trainer', 40000, 2), (103, 'Adam chas', 'Clerk', 350000, 1), (104, 'rexi mary', 'Assistant Manager', 600000, 4), (105, 'syam nas', 'Manager', 70000, 1), (106, 'Bruty ', 'p-assistant', 20000, 1), (107, 'Gopika das', 'Assistant Manager', 550000, 7), (108, 'Alex paul', 'Clerk', 50000, 2), (109, 'Sony ', 'Clerk', 480000, 1), (110, 'shalbin ks', 'Clerk', 42000, 1);	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0	0.016 sec

Object Info Session

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

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Administration Schemas

Information

Schema: sales

Query 1 SQL File 4" SQL File 4" SQL File 6" SQL File 6" SQL File 8" SQL File 8" SQL File 9" SQL File 10" SQL File 12" SQL File 12" SQL File 13" x product

```

49     (104, 'rexi mary', 'Assistant Manager', 600000, 4),
50     (105, 'syam nas', 'Manager', 70000, 1),
51     (106, 'Bruty ', 'p-assistant', 20000, 1),
52     (107, 'Gopika das', 'Assistant Manager', 550000, 7),
53     (108, 'Alex paul', 'Clerk', 50000, 2),
54     (109, 'Sony ', 'Clerk', 480000, 1),
55     (110, 'shalbin ks', 'Clerk', 42000, 1);
56
57 # displays table employee
58 select * from Employee;
59
60
61
  
```

Result Grid

Emp_id	Emp_name	Position	Salary	Branch_no
101	Akshay peter	S-Manager	90000	1
102	John Joseph	Assistant trainer	40000	2
103	Adam chas	Clerk	350000	1
104	rexi mary	Assistant Manager	600000	4
105	syam nas	Manager	70000	1
106	Bruty	p-assistant	20000	1
107	Gopika das	Assistant Manager	550000	7
108	Alex paul	Clerk	50000	2
109	Sony	Clerk	480000	1
110	shalbin ks	Clerk	42000	1

Employee 3 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
9	15:48:42	INSERT INTO Employee (Emp_id, Emp_name, Position, Salary, Branch_no) VALUES (101, 'Akshay peter', 'S-Manager', 90000, 1), (102, 'John Joseph', 'Assistant trainer', 40000, 2), (103, 'Adam chas', 'Clerk', 350000, 1), (104, 'rexi mary', 'Assistant Manager', 600000, 4), (105, 'syam nas', 'Manager', 70000, 1), (106, 'Bruty ', 'p-assistant', 20000, 1), (107, 'Gopika das', 'Assistant Manager', 550000, 7), (108, 'Alex paul', 'Clerk', 50000, 2), (109, 'Sony ', 'Clerk', 480000, 1), (110, 'shalbin ks', 'Clerk', 42000, 1);	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0	0.016 sec
10	15:49:29	select * from Employee LIMIT 0, 1000	10 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

- global\_store\_db
  - organization
  - product
  - sales
  - school
  - sys
  - world

Administration Schemas

Information

Schema: sales

Query 1 SQL File 4" SQL File 4" SQL File 6" SQL File 6" SQL File 8" SQL File 8" SQL File 9" SQL File 10" SQL File 12" SQL File 12" SQL File 13" x product

```

60 # creating another table called Books
61 create table Books(
62     ISBN int primary key,
63     Book_title varchar(50),
64     Category varchar(35),
65     Rental_price int,
66     Status varchar(30),
67     Author varchar(35),
68     Publisher varchar(35));
69
70 # adding values to table Books
71 INSERT INTO Books (ISBN, Book_title, Category, Rental_price, Status, Author, Publisher)
72 VALUES
73     (9812345, 'The goat life', 'Adventure', 55, 'Available', 'benjamin', 'XOX Publishers'),
74     (9898765, 'Mansion finding', 'Mystery', 30, 'Reserved', 'Doe ns', 'YZ Books'),
75     (9824680, 'Lost Treasure', 'Adventure', 25, 'Available', 'Johnson', 'PQR tomes'),
76     (9783579, 'Secret Code', 'Mystery', 39, 'Reserved', 'Robert', 'AK Publications'),
77     (9886420, 'One man', 'Adventure', 15, 'Available', 'Brother ak', 'DLF Books'),
78     (9797531, 'Chronicles of nania', 'History', 25, 'Reserved', 'Peter D', 'Street Publishers'),
79     (9875309, 'Aquaman', 'Adventure', 30, 'Available', 'Olivia Green', 'JKL private ltd'),
80     (9846802, 'clean code', 'programming', 40, 'Reserved', 'Behin', 'Book ltd'),
81     (9785937, 'Hidden Passage', 'Adventure', 32, 'Available', 'Martin F', 'GS Publishers'),
82     (9782468, 'Puzzle Manor', 'Mystery', 28, 'Reserved', 'Brutasath', 'Open ltd');
83
84 # displaying the table Books

```

Output

Action Output

#	Time	Action	Message	Duration / Fetch
16	16:12:33	select * from Books LIMIT 0, 1000	20 row(s) returned	0.000 sec / 0.000 sec

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

- global\_store\_db
  - library
    - branch
    - employee
    - Views
    - Stored Procedures
  - organization
  - product
  - sales
  - school
  - sys
  - world

Administration Schemas

Information

No object selected

Query 1 SQL File 4" SQL File 4" SQL File 6" SQL File 6" SQL File 8" SQL File 8" SQL File 9" SQL File 10" SQL File 12" SQL File 12" SQL File 13" x product

```

64 Category varchar(35),
65 Rental_price int,
66 Status varchar(30),
67 Author varchar(35),
68 Publisher varchar(35));
69
70 # adding values to table Books
71 INSERT INTO Books (ISBN, Book_title, Category, Rental_price, Status, Author, Publisher)
72 VALUES
73     (97812345, 'The goat life', 'Adventure', 55, 'Available', 'benjamin', 'XOX Publishers'),
74     (97898765, 'Mansion finding', 'Mystery', 30, 'Reserved', 'Doe ns', 'YZ Books'),
75     (97824680, 'Lost Treasure', 'Adventure', 25, 'Available', 'Johnson', 'PQR tomes'),

```

Result Grid

ISBN	Book_title	Category	Rental_price	Status	Author	Publisher
97802468	Puzzle Manor	Mystery	28	Reserved	Brutasath	Open ltd
97812345	The goat life	Adventure	55	Available	benjamin	XOX Publishers
97813579	Secret Code	Mystery	39	Reserved	Robert	AK Publications
97815937	Hidden Passage	Adventure	32	Available	Martin F	GS Publishers
97824680	Lost Treasure	Adventure	25	Available	Johnson	PQR tomes
97846802	clean code	programming	40	Reserved	Behin	Book ltd
97875309	Aquaman	Adventure	30	Available	Olivia Green	JKL private ltd
97886420	One man	Adventure	15	Available	Brother ak	DLF Books
97897531	Chronicles of nania	History	25	Reserved	Peter D	Street Publishers
97898765	Mansion finding	Mystery	30	Reserved	Doe ns	YZ Books

Books 10 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
24	22:12:44	INSERT INTO Books (ISBN, Book_title, Category, Rental_price, Status, Author, Publisher) V...	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0	0.016 sec
25	22:13:05	select * from Books LIMIT 0, 1000	10 row(s) returned	0.000 sec / 0.000 sec

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

- global\_store\_db
  - library
    - Tables
      - branch
      - employee
    - Views
    - Stored Procedures
    - Functions
  - organization
  - product
  - sales
  - school
  - sys
  - world

Administration Schemas

Information

No object selected

Object Info Session

Query 1 SQL File 4" SQL File 4" SQL File 6" SQL File 6" SQL File 8" SQL File 8" SQL File 9" SQL File 10" SQL File 12" SQL File 12" SQL File 13" x product

```

86
87 # creating another table called Customer
88 create table Customer(
89     Customer_id int primary key,
90     Customer_name varchar(50),
91     Customer_address varchar(100),
92     Reg_date date);
93
94 # adding values to table Customer
95 INSERT INTO Customer (Customer_id, Customer_name, Customer_address, Reg_date)
96 VALUES
97     (1, 'Johnson', 'HP street k', '2021-08-01'),
98     (2, 'Paul', 'North hsr', '2023-05-20'),
99     (3, 'Dhoni', 'El city road', '2021-02-18'),
100    (4, 'Dan ', 'city street white road', '2021-11-23'),
101    (5, 'Vincent', 'Avenue park', '2023-08-25'),
102    (6, 'David ', 'Linkroad 786', '2023-05-13'),
103    (7, 'Gracy F', 'Naple street', '2019-09-07'),
104    (8, 'Issac Jose', 'Centre road 02', '2023-01-18'),
105    (9, 'Smith ', 'Near centre mall', '2022-05-21'),
106    (10, 'Jithu s', 'Doha street 3', '2023-03-20');
107
108 # displays table Customer
109 select * from Customer;
110

```

Output

Action Output

#	Time	Action	Message	Duration / Fetch
26	22:21:04	create table Customer (Customer_id int primary key, Customer_name varchar(50), Customer_address varchar(100), Reg_date date);	0 row(s) affected	0.078 sec
27	22:21:13	INSERT INTO Customer (Customer_id, Customer_name, Customer_address, Reg_date) VALUES (1, 'Johnson', 'HP street k', '2021-08-01'), (2, 'Paul', 'North hsr', '2023-05-20'), (3, 'Dhoni', 'El city road', '2021-02-18'), (4, 'Dan ', 'city street white road', '2021-11-23'), (5, 'Vincent', 'Avenue park', '2023-08-25'), (6, 'David ', 'Linkroad 786', '2023-05-13'), (7, 'Gracy F', 'Naple street', '2019-09-07'), (8, 'Issac Jose', 'Centre road 02', '2023-01-18'), (9, 'Smith ', 'Near centre mall', '2022-05-21'), (10, 'Jithu s', 'Doha street 3', '2023-03-20');	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0	0.016 sec

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

- global\_store\_db
  - library
    - Tables
      - branch
      - employee
    - Views
    - Stored Procedures
    - Functions
  - organization
  - product
  - sales
  - school
  - sys
  - world

Administration Schemas

Information

No object selected

Object Info Session

Query 1 SQL File 4" SQL File 4" SQL File 6" SQL File 6" SQL File 8" SQL File 8" SQL File 9" SQL File 10" SQL File 12" SQL File 12" SQL File 13" x product

```

99     (3, 'Dhoni', 'El city road', '2021-02-18'),
100    (4, 'Dan ', 'city street white road', '2021-11-23'),
101    (5, 'Vincent', 'Avenue park', '2023-08-25'),
102    (6, 'David ', 'Linkroad 786', '2023-05-13'),
103    (7, 'Gracy F', 'Naple street', '2019-09-07'),
104    (8, 'Issac Jose', 'Centre road 02', '2023-01-18'),
105    (9, 'Smith ', 'Near centre mall', '2022-05-21'),
106    (10, 'Jithu s', 'Doha street 3', '2023-03-20');
107
108 # displays table Customer
109 select * from Customer;
110
111

```

Result Grid

Customer_id	Customer_name	Customer_address	Reg_date
1	Johnson	HP street k	2021-08-01
2	Paul	North hsr	2023-05-20
3	Dhoni	El city road	2021-02-18
4	Dan	city street white road	2021-11-23
5	Vincent	Avenue park	2023-08-25
6	David	Linkroad 786	2023-05-13
7	Gracy F	Naple street	2019-09-07
8	Issac Jose	Centre road 02	2023-01-18
9	Smith	Near centre mall	2022-05-21
10	Jithu s	Doha street 3	2023-03-20

Customer 11 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
27	22:21:13	INSERT INTO Customer (Customer_id, Customer_name, Customer_address, Reg_date) VALUES (1, 'Johnson', 'HP street k', '2021-08-01'), (2, 'Paul', 'North hsr', '2023-05-20'), (3, 'Dhoni', 'El city road', '2021-02-18'), (4, 'Dan ', 'city street white road', '2021-11-23'), (5, 'Vincent', 'Avenue park', '2023-08-25'), (6, 'David ', 'Linkroad 786', '2023-05-13'), (7, 'Gracy F', 'Naple street', '2019-09-07'), (8, 'Issac Jose', 'Centre road 02', '2023-01-18'), (9, 'Smith ', 'Near centre mall', '2022-05-21'), (10, 'Jithu s', 'Doha street 3', '2023-03-20');	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0	0.016 sec
28	22:22:52	select * from Customer LIMIT 0, 1000	10 row(s) returned	0.000 sec / 0.000 sec



Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

global\_store\_db

library

Tables

branch

employee

Views

Stored Procedures

Functions

organization

product

sales

school

sys

world

Administration Schemas

Information

No object selected

Query 1 SQL File 4\* SQL File 4\* SQL File 6\* SQL File 6\* SQL File 8\* SQL File 8\* SQL File 9\* SQL File 10\* SQL File 12\* SQL File 12\* SQL File 13\* x product

```

112 create table IssueStatus(
113     Issue_id int primary key,
114     Issued_cust int,
115     foreign key(Issued_cust) references Customer(Customer_id) on delete cascade,
116     Issue_date date,
117     Isbn_book int,
118     foreign key(Isbn_book) references Books(ISBN) on delete cascade);
119
120 # adding values to table IssueStatus
121 INSERT INTO IssueStatus (Issue_id, Issued_cust, Issue_date, Isbn_book)
122 VALUES
123     (01, 9, '2023-06-11', 97812345),
124     (02, 2, '2022-05-12', 97898765),
125     (03, 5, '2023-05-13', 97824680),
126     (04, 4, '2023-06-14', 97813579),
127     (05, 5, '2021-04-15', 97886420),
128     (06, 6, '2023-05-16', 97897531),
129     (07, 2, '2023-06-17', 97875309),
130     (08, 8, '2023-05-18', 97846802),
131     (09, 9, '2021-07-19', 97815937),
132     (10, 10, '2019-09-20', 97802468);
133
134 # displays table IssueStatus
135 select * from IssueStatus;
136

```

Output

Action Output

#	Time	Action	Message	Duration / Fetch
29	22:32:24	create table IssueStatus( Issue_id int primary key, Issued_cust int, foreign key(Issued_cust...	0 row(s) affected	0.140 sec
30	22:32:32	INSERT INTO IssueStatus (Issue_id, Issued_cust, Issue_date, Isbn_book) VALUES (01...	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0	0.032 sec

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

global\_store\_db

library

Tables

branch

employee

Views

Stored Procedures

Functions

organization

product

sales

school

sys

world

Administration Schemas

Information

No object selected

Query 1 SQL File 4\* SQL File 4\* SQL File 6\* SQL File 6\* SQL File 8\* SQL File 8\* SQL File 9\* SQL File 10\* SQL File 12\* SQL File 12\* SQL File 13\* x product

```

125     (03, 5, '2023-05-13', 97824680),
126     (04, 4, '2023-06-14', 97813579),
127     (05, 5, '2021-04-15', 97886420),
128     (06, 6, '2023-05-16', 97897531),
129     (07, 2, '2023-06-17', 97875309),
130     (08, 8, '2023-05-18', 97846802),
131     (09, 9, '2021-07-19', 97815937),
132     (10, 10, '2019-09-20', 97802468);
133
134 # displays table IssueStatus
135 select * from IssueStatus;
136
137

```

Result Grid

Issue_id	Issued_cust	Issue_date	Isbn_book
1	9	2023-06-11	97812345
2	2	2022-05-12	97898765
3	5	2023-05-13	97824680
4	4	2023-06-14	97813579
5	5	2021-04-15	97886420
6	6	2023-05-16	97897531
7	2	2023-06-17	97875309
8	8	2023-05-18	97846802
9	9	2021-07-19	97815937
10	10	2019-09-20	97802468

Output

Action Output

#	Time	Action	Message	Duration / Fetch
30	22:32:32	INSERT INTO IssueStatus (Issue_id, Issued_cust, Issue_date, Isbn_book) VALUES (01...	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0	0.032 sec
31	22:34:14	select * from IssueStatus LIMIT 0. 1000	10 row(s) returned	0.000 sec / 0.000 sec

MySQL Workbench interface showing the creation and insertion of data into the `ReturnStatus` table.

**Navigator:** Schemas, global\_stom\_db, library, Tables, branch, employee, Views, Stored Procedures, Functions, organization, product, sales, school, sys, world.

**SQL Editor:**

```
136
137
138 # creating another table called ReturnStatus
139 create table ReturnStatus(
140     Return_id int primary key,
141     Return_cust varchar(50),
142     Return_book_name varchar(50),
143     Return_date date,
144     Isbn_book2 int,
145     foreign key(Isbn_book2) references Books(Isbn) on delete cascade);
146
147 # Adding values to table ReturnStatus
148 INSERT INTO ReturnStatus (Return_id, Return_cust, Return_book_name, Return_date, Isbn_book2)
149 VALUES
150     (01, 'Johnson', 'The goat life', '2023-05-11', 97812345),
151     (02, 'Paul', 'Mansion finding', '2023-05-12', 97898765),
152     (03, 'Dhoni', 'Lost Treasure', '2023-05-13', 97824680),
153     (04, 'Dan', 'Secret Code', '2023-05-14', 97813579),
154     (05, 'Vincent', 'one man', '2023-05-15', 97886420),
155     (06, 'David', 'Chronicles of nania', '2023-05-16', 97897531),
156     (07, 'Gracy F', 'Aquaman', '2023-05-17', 97875309),
157     (08, 'Issac Jose', 'clean code', '2023-05-18', 97846802),
158     (09, 'Smith', 'Hidden Passage', '2023-05-19', 97815937),
159     (10, 'Jithu s', 'Puzzle Manor', '2023-05-20', 97802468);
160
161 # displays table ReturnStatus
```

**Output:**

#	Time	Action	Message	Duration / Fetch
32	22:45:12	create table ReturnStatus (Return_id int primary key, Return_cust varchar(50), Return_...	0 row(s) affected	0.109 sec
33	22:45:18	INSERT INTO ReturnStatus (Return_id, Return_cust, Return_book_name, Return_date, Isb...	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0	0.016 sec

MySQL Workbench interface showing the result of the `ReturnStatus` table insertion.

**Navigator:** Schemas, global\_stom\_db, library, Tables, branch, employee, Views, Stored Procedures, Functions, organization, product, sales, school, sys, world.

**SQL Editor:**

```
145
146 # Adding values to table ReturnStatus
147 INSERT INTO ReturnStatus (Return_id, Return_cust, Return_book_name, Return_date, Isbn_book2)
148 VALUES
149     (01, 'Johnson', 'The goat life', '2023-05-11', 97812345),
150     (02, 'Paul', 'Mansion finding', '2023-05-12', 97898765),
151     (03, 'Dhoni', 'Lost Treasure', '2023-05-13', 97824680),
152     (04, 'Dan', 'Secret Code', '2023-05-14', 97813579),
153     (05, 'Vincent', 'one man', '2023-05-15', 97886420),
154     (06, 'David', 'Chronicles of nania', '2023-05-16', 97897531),
155     (07, 'Gracy F', 'Aquaman', '2023-05-17', 97875309),
156     (08, 'Issac Jose', 'clean code', '2023-05-18', 97846802);
```

**Result Grid:**

Return_id	Return_cust	Return_book_name	Return_date	Isbn_book2
1	Johnson	The goat life	2023-05-11	97812345
2	Paul	Mansion finding	2023-05-12	97898765
3	Dhoni	Lost Treasure	2023-05-13	97824680
4	Dan	Secret Code	2023-05-14	97813579
5	Vincent	one man	2023-05-15	97886420
6	David	Chronicles of nania	2023-05-16	97897531
7	Gracy F	Aquaman	2023-05-17	97875309
8	Issac Jose	clean code	2023-05-18	97846802
9	Smith	Hidden Passage	2023-05-19	97815937
10	Jithu s	Puzzle Manor	2023-05-20	97802468

**Output:**

#	Time	Action	Message	Duration / Fetch
33	22:45:18	INSERT INTO ReturnStatus (Return_id, Return_cust, Return_book_name, Return_date, Isb...	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0	0.016 sec
34	22:46:40	select * from ReturnStatus LIMIT 0, 1000	10 row(s) returned	0.000 sec / 0.000 sec



Local instance MySQL80 x

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Information

No object selected

Query 1 SQL File 4\* SQL File 4\* SQL File 6\* SQL File 6\* SQL File 8\* SQL File 8\* SQL File 9\* SQL File 10\* SQL File 12\* SQL File 12\* SQL File 13\* x product

160 # displays table ReturnStatus

161 select \* from ReturnStatus;

162

163 # 1. Retrieve the book title, category, and rental price of all available books

164 SELECT

165 Book\_title,

166 Category,

167 Rental\_Price

168 FROM

169 Books

170 WHERE

171 Status = 'Available';

Result Grid

Book_title	Category	Rental_Price
The goat life	Adventure	55
Hidden Passage	Adventure	32
Lost Treasure	Adventure	25
Aquaman	Adventure	30
One man	Adventure	15

Books 14 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
34	22:46:40	select * from ReturnStatus LIMIT 0, 1000	10 row(s) returned	0.000 sec / 0.000 sec
35	22:49:23	SELECT Book_title, Category, Rental_Price FROM Books WHERE Status = 'Available'...	5 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

Local instance MySQL80 x

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No object selected

Query 1 SQL File 4\* SQL File 4\* SQL File 6\* SQL File 6\* SQL File 8\* SQL File 8\* SQL File 9\* SQL File 10\* SQL File 12\* SQL File 12\* SQL File 13\* x product

172

173 # 2. List the employee names and their respective salaries in descending order of salary

174 SELECT

175 Emp\_name,

176 Salary

177 FROM

178 Employee

179 ORDER BY

180 Salary DESC

181

182

183

Result Grid

Emp_name	Salary
rexu mary	680000
Gopika das	350000
Sony	480000
Adam chas	350000
Alohay peter	90000
syam nas	70000
Alex paul	50000
shaiben ks	42000
John joseph	40000
Bruty	20000

Employee 15 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
35	22:49:23	SELECT Book_title, Category, Rental_Price FROM Books WHERE Status = 'Available'...	5 row(s) returned	0.000 sec / 0.000 sec
36	22:50:42	SELECT Emp_name, Salary FROM Employee ORDER BY Salary DESC LIMIT 0, 1000	10 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

Local instance MySQL80 x

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No object selected

Query 1 SQL File 4" SQL File 4" SQL File 6" SQL File 6" SQL File 8" SQL File 8" SQL File 9" SQL File 10" SQL File 12" SQL File 12" SQL File 13" x product

181

182 # 3, Retrieve the book titles and the corresponding customers who have issued those books

183

184 SELECT

185 b.Book\_title,

186 c.Customer\_name

187 FROM

188 IssueStatus i

189 JOIN Books b ON i.Isbn\_book = b.ISBN

190 JOIN Customer c ON i.Issued\_cust = c.Customer\_Id

191

192

Result Grid Filter Rows: Exports: Wrap Cell Contents: I

Book_title	Customer_name
The goat life	Smith
Mansion finding	Paul
Lost Treasure	Vincent
Secret Code	Dan
One man	Vincent
Chronicles of nania	David
Aquaman	Paul
clean code	Issac Jose
Hidden Passage	Smith
Puzzle Manor	Jithu s

Result 16 x Read Only

Output

Action Output

#	Time	Action	Message	Duration / Fetch
36	22:50:42	SELECT Emp_name, Salary FROM Employee ORDER BY Salary DESC LIMIT 0, 1000	10 row(s) returned	0.000 sec / 0.000 sec
37	22:52:11	SELECT b.Book_title, c.Customer_name FROM IssueStatus i JOIN Books b ON i.Isbn_...	10 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

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Filter objects

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Administration Schemas Information

No object selected

Query 1 SQL File 4" SQL File 4" SQL File 6" SQL File 6" SQL File 8" SQL File 8" SQL File 9" SQL File 10" SQL File 12" SQL File 12" SQL File 13" x product

191

192 # 4, Display the total count of books in each category

193

194 SELECT

195 Category,

196 COUNT(\*) AS Total\_Count

197 FROM

198 Books

199 GROUP BY

200 Category

201

202

Result Grid Filter Rows: Exports: Wrap Cell Contents: I

Category	Total_Count
Mystery	3
Adventure	5
programming	1
History	1

Result 17 x Read Only

Output

Action Output

#	Time	Action	Message	Duration / Fetch
37	22:52:11	SELECT b.Book_title, c.Customer_name FROM IssueStatus i JOIN Books b ON i.Isbn_...	10 row(s) returned	0.000 sec / 0.000 sec
38	22:53:10	SELECT Category, COUNT(*) AS Total_Count FROM Books GROUP BY Category LIM...	4 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

Local instance MySQL80 x

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    - sys
    - world

Administration Schemas

Information

No object selected

Query 1 SQL File 4\* SQL File 4\* SQL File 6\* SQL File 6\* SQL File 8\* SQL File 8\* SQL File 9\* SQL File 10\* SQL File 12\* SQL File 12\* SQL File 13\* product

199

200 # 5. Retrieve the employee names and their positions for the employees whose salaries are above Rs.50,000

201 SELECT

202 Emp\_name,

203 Position

204 FROM

205 Employee

206 WHERE

207 Salary > 50000;

208

209

210

Result Grid Filter Rows Exports Wrap Cell Contents

Emp_name	Position
Aishay peter	S-Manager
Adam chas	Clerk
rexi mary	Assistant Manager
iyam nas	Manager
Gopika das	Assistant Manager
Sony	Clerk

Employee 18 x Read Only

Output

Action Output

#	Time	Action	Message	Duration / Fetch
38	22:53:10	SELECT Category, COUNT(*) AS Total_Count FROM Books GROUP BY Category LIMIT 4 row(s) returned		0.000 sec / 0.000 sec
39	22:54:51	SELECT Emp_name, Position FROM Employee WHERE Salary > 50000 LIMIT 0, 1000 6 row(s) returned		0.000 sec / 0.000 sec

Object Info Session

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

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SCHEMAS

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      - Functions
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    - sales
    - school
    - sys
    - world

Administration Schemas

Information

No object selected

Query 1 SQL File 4\* SQL File 4\* SQL File 6\* SQL File 6\* SQL File 8\* SQL File 8\* SQL File 9\* SQL File 10\* SQL File 12\* SQL File 12\* SQL File 13\* product

208

209 # 6. List the customer names who registered before 2022-01-01 and have not issued any books yet

210 SELECT

211 Customer\_name

212 FROM

213 Customer

214 WHERE

215 Reg\_date < '2022-01-01'

216 AND Customer\_Id NOT IN (

217 SELECT

218 Issued\_cust

219 FROM

220 IssueStatus

221 );

222

223

224

Result Grid Filter Rows Exports Wrap Cell Contents

Customer_name
Johnson
Dhoni
Gracy F

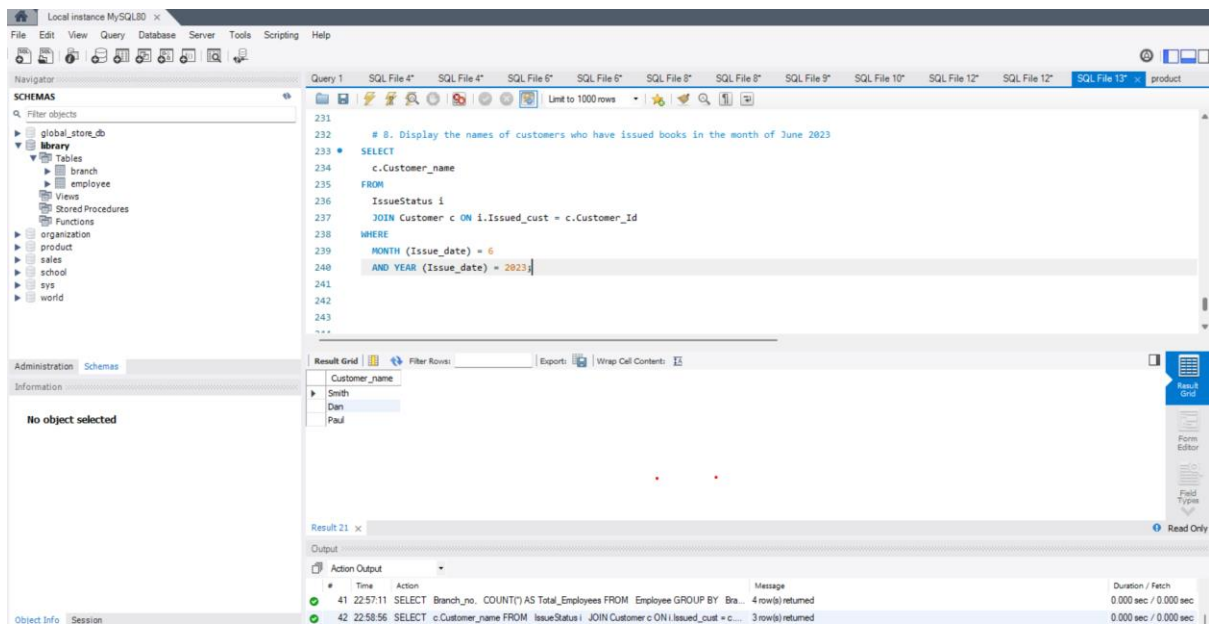
Customer 19 x Read Only

Output

Action Output

#	Time	Action	Message	Duration / Fetch
39	22:54:51	SELECT Emp_name, Position FROM Employee WHERE Salary > 50000 LIMIT 0, 1000 6 row(s) returned		0.000 sec / 0.000 sec
40	22:55:53	SELECT Customer_name FROM Customer WHERE Reg_date < '2022-01-01' AND Cus... 3 row(s) returned		0.000 sec / 0.000 sec

Object Info Session



Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

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SCHMAS

Filter objects

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Administration Schemas

Information

No object selected

Query 1 SQL File 4\* SQL File 4\* SQL File 6\* SQL File 6\* SQL File 8\* SQL File 8\* SQL File 9\* SQL File 10\* SQL File 12\* SQL File 12\* SQL File 12\* product

241

242 #9. Retrieve book\_title from book table containing history

243 SELECT

244 Book\_title

245 FROM

246 Books

247 WHERE

248 Category = 'History';

249

250

251

252

253

Result Grid Filter Rows: Export Wrap Cell Contents: 15

Book\_title

Chronicles of nania

Books 22 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
42	22:58:56	SELECT c.Customer_name FROM IssueStatus i JOIN Customer c ON i.Issued_cust = c...	3 row(s) returned	0.000 sec / 0.000 sec
43	23:01:28	SELECT Book_title FROM Books WHERE Category = 'History' LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

Local instance MySQL80 x

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Navigator

SCHMAS

Filter objects

global\_store\_db

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Administration Schemas

Information

No object selected

Query 1 SQL File 4\* SQL File 4\* SQL File 6\* SQL File 6\* SQL File 8\* SQL File 8\* SQL File 9\* SQL File 10\* SQL File 12\* SQL File 12\* SQL File 12\* product

251

252 #10. Retrieve the branch numbers along with the count of employees for branches having more than 5 employees

253 SELECT

254 Branch\_no,

255 COUNT(\*) AS Total\_Employees

256 FROM

257 Employee

258 GROUP BY

259 Branch\_no

260 HAVING

261 COUNT(\*) > 5;

Result Grid Filter Rows: Export Wrap Cell Contents: 15

Branch\_no Total\_Employees

1 6

Result 27 x

Local instance MySQL80 x

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Navigator

SCHMAS

Filter objects

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    - Views
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    - Functions
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  - product
  - sales
  - school
  - sys
  - world

Information

No object selected

Query 1 SQL File 4\* SQL File 4\* SQL File 6\* SQL File 6\* SQL File 8\* SQL File 8\* SQL File 9\* SQL File 10\* SQL File 12\* SQL File 12\* SQL File 13\* x product

261  
262  
263 #11. Retrieve the names of employees who manage branches and their respective branch addresses  
264 SELECT  
265 e.Emp\_name,  
266 b.Branch\_address  
267 FROM  
268 Employee e  
269 JOIN Branch b ON e.Branch\_no = b.Branch\_no  
270 WHERE  
271 e.Position = 'Manager';  
272  
273

Result Grid

Emp_name	Branch_address
syam nas	nair street

Output

Action Output

#	Time	Action	Message	Duration / Fetch
44	23:03:02	SELECT Branch_no, COUNT(*) AS Total_Employees FROM Employee GROUP BY Bra...	1 row(s) returned	0.016 sec / 0.000 sec
45	23:04:36	SELECT e.Emp_name, b.Branch_address FROM Employee e JOIN Branch b ON e Bra...	1 row(s) returned	0.016 sec / 0.000 sec

Object Info Session

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHMAS

Filter objects

- global\_store\_db
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  - world

Information

No object selected

Query 1 SQL File 4\* SQL File 4\* SQL File 6\* SQL File 6\* SQL File 8\* SQL File 8\* SQL File 9\* SQL File 10\* SQL File 12\* SQL File 12\* SQL File 13\* x product

272  
273  
274 #12. Display the names of customers who have issued books with a rental price higher than Rs. 25  
275 SELECT  
276 c.Customer\_name  
277 FROM  
278 IssueStatus i  
279 JOIN Customer c ON i.Issued\_cust = c.Customer\_Id  
280 JOIN Books b ON i.Isbn\_book = b.ISBN  
281 WHERE  
282 b.Rental\_Price > 25;  
283  
284

Result Grid

Customer_name
Jithu s
Smith
Dan
Smith
Isaac Jose
Paul
Paul

Output

Action Output

#	Time	Action	Message	Duration / Fetch
46	23:05:53	SELECT c.Customer_name FROM IssueStatus i JOIN Customer c ON i.Issued_cust = c...	7 row(s) returned	0.000 sec / 0.000 sec
47	23:06:11	SELECT c.Customer_name FROM IssueStatus i JOIN Customer c ON i.Issued_cust = c...	7 row(s) returned	0.000 sec / 0.000 sec

Object Info Session