

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

```

26     (6, 106, '124 Railway Station Rd, Kottayam, Kerala', '919876543287'),
27     (7, 107, '88 Red Cross Road, Kozhikode, Kerala', '919657832198'),
28     (8, 108, '78 Palayam, Thiruvananthapuram, Kerala ', '919856423893'),
29     (9, 109, '123 Asramam Link Road, Kollam, Kerala', '919545682134'),
30     (10,110, '57 Boat Jetty Rd, Alappuzha, Kerala ', '91987456321')};

31
32 # displays table branch
33 • select * from Branch];
```

```

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

| Branch_no | Manager_id | Branch_address                           | Contact_no   |
|-----------|------------|------------------------------------------|--------------|
| 1         | 101        | 45 Ayyanthole, Thrissur, Kerala          | 918765432109 |
| 2         | 102        | 48 Down Hill, Malappuram, Kerala         | 919765492179 |
| 3         | 103        | 65 Stadium Bypass Road,Palakkad,Kerala   | 918856432167 |
| 4         | 104        | 66 Convent Junction, Ernakulam, Kerala   | 918655832877 |
| 5         | 105        | 123 Red Cross Road, Kozhikode, Kerala    | 917845602156 |
| 6         | 106        | 124 Railway Station Rd, Kottayam, Kerala | 919876543287 |
| 7         | 107        | 88 Red Cross Road, Kozhikode, Kerala     | 919657832198 |
| 8         | 108        | 78 Palayam, Thiruvananthapuram, Kerala   | 919856423893 |
| 9         | 109        | 123 Asramam Link Road, Kollam, Kerala    | 919545682134 |
| 10        | 110        | 57 Boat Jetty Rd, Alappuzha, Kerala      | 91987456321  |
| NULL      | NULL       | NULL                                     | NULL         |

Branch 28 x Apply

Output

Action Output

| # | Time     | Action                                                                                                               | Message                                                  | Duration / Fetch      |
|---|----------|----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|-----------------------|
| 2 | 16:27:58 | show databases                                                                                                       | 12 row(s) returned                                       | 0.000 sec / 0.000 sec |
| 3 | 16:28:11 | show databases                                                                                                       | 12 row(s) returned                                       | 0.000 sec / 0.000 sec |
| 4 | 16:28:30 | use library                                                                                                          | 0 row(s) affected                                        | 0.000 sec             |
| 5 | 16:28:34 | create table Branch(Branch_no int primary key, Manager_id int, Branch_address varchar(100), Contact_no int)          | 0 row(s) affected                                        | 0.031 sec             |
| 6 | 16:28:49 | INSERT INTO Branch (Branch_no, Manager_id, Branch_address, Contact_no) VALUES (1, 101, '45 Ayyant...', 918765432109) | 10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0 | 0.015 sec             |
| 7 | 16:28:58 | select * from Branch LIMIT 0,1000                                                                                    | 10 row(s) returned                                       | 0.000 sec / 0.000 sec |

```

53 (1007, 'Amal Jhone', 'Assistant Manager', 60000, 7),
54 (1008, 'Adam Asif', 'Clerk', 38000, 1),
55 (1009, 'Neha Joseph', 'Clerk', 41000, 9),
56 (1010, 'Deepak Lal', 'Clerk', 40000, 1);
57
58
59 # displays table employee
60 • select * from Employee;
61

```

**Result Grid**

| Emp_id | Emp_name        | Position          | Salary | Branch_no |
|--------|-----------------|-------------------|--------|-----------|
| 1001   | Rohan Kumar     | Manager           | 75000  | 1         |
| 1002   | Varun Krishna   | Assistant Manager | 55000  | 1         |
| 1003   | Priya Ashok     | Clerk             | 42000  | 1         |
| 1004   | Muhsina Shafeer | Manager           | 68000  | 2         |
| 1005   | Rajesh Unni     | Cleaning          | 32000  | 6         |
| 1006   | Sneha Aravinth  | Librarian         | 45000  | 1         |
| 1007   | Amal Jhone      | Assistant Manager | 60000  | 7         |
| 1008   | Adam Asif       | Clerk             | 38000  | 1         |
| 1009   | Neha Joseph     | Clerk             | 41000  | 9         |
| 1010   | Deepak Lal      | Clerk             | 40000  | 1         |
| *      | NULL            | NULL              | NULL   | NULL      |

**Employee 44** x

**Output:**

**Action Output**

| # | Time     | Action                                                                                                                               | Message                                                  | Duration / Fetch      |
|---|----------|--------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|-----------------------|
| 3 | 16:54:17 | create table Branch(Branch_no int primary key, Manager_id int, Branch_address varchar(100), Contact_no int)                          | 0 row(s) affected                                        | 0.078 sec             |
| 4 | 16:54:24 | INSERT INTO Branch (Branch_no, Manager_id, Branch_address, Contact_no) VALUES (1, 101, '45 Ayyanthole Main Road, Kozhikode, Kerala') | 10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0 | 0.016 sec             |
| 5 | 16:54:35 | select * from Branch LIMIT 0, 1000                                                                                                   | 10 row(s) returned                                       | 0.015 sec / 0.000 sec |
| 6 | 16:54:44 | create table Employee(Emp_id int primary key, Emp_name varchar(50), Position varchar(20), Salary int, Branch_no int)                 | 0 row(s) affected                                        | 0.094 sec             |
| 7 | 16:54:52 | INSERT INTO Employee (Emp_id, Emp_name, Position, Salary, Branch_no) VALUES (1001, 'Rohan Kumar', 'Manager', 75000, 1)               | 10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0 | 0.016 sec             |
| 8 | 16:54:56 | select * from Employee LIMIT 0, 1000                                                                                                 | 10 row(s) returned                                       | 0.000 sec / 0.000 sec |

```

80 (97866666, 'The Legends of Khasak', 'Fiction', 25, 'Available', 'O. V. Vijayan', 'DC Books'),
81 (97813579, 'Randamoozham', 'Fiction', 30, 'Available', 'M.T. Vasudevan Nair', 'D.C. Books'),
82 (97877777, 'The Guide', 'Fiction', 25, 'Available', 'R. K. Narayan', 'Penguin Books India'),
83 (97888888, 'The Elephant, The Tiger, and the Cell Phone', 'Non-Fiction', 30, 'Available', 'Shashi Tharoor', 'Penguin Viking'),
84 (97888898, 'One Hundred Years of Solitude', 'Fiction', 35, 'Available', 'Gabriel Garcia Marquez', 'Harper & Row');
85
86 # displays table Books
87 • select * from Books;
88

```

**Result Grid**

| ISBN     | Book_title                                  | Category      | Rental_price | Status    | Author                 | Publisher           |
|----------|---------------------------------------------|---------------|--------------|-----------|------------------------|---------------------|
| 97811111 | The Ivory Throne                            | History       | 35           | Available | Manu S. Pillai         | HarperCollins India |
| 97812345 | The God of Small Things                     | Fiction       | 25           | Available | Arunhati Roy           | Random House        |
| 97813579 | Randamoozham                                | Fiction       | 30           | Available | M.T. Vasudevan Nair    | D.C. Books          |
| 97824680 | The Hangman's Daughter                      | Fiction       | 15           | Available | K.R. Meera             | Penguin Books India |
| 97836987 | Aadu Jeevitham                              | Autobiography | 28           | Available | Bennyameen             | ABC Publishers      |
| 97866666 | The Legends of Khasak                       | Fiction       | 25           | Available | O. V. Vijayan          | DC Books            |
| 97877777 | The Guide                                   | Fiction       | 25           | Available | R. K. Narayan          | Penguin Books India |
| 97888888 | The Elephant, The Tiger, and the Cell Phone | Non-Fiction   | 30           | Available | Shashi Tharoor         | Penguin Viking      |
| 97888898 | One Hundred Years of Solitude               | Fiction       | 35           | Available | Gabriel Garcia Marquez | Harper & Row        |
| 97899765 | Chenneem                                    | Fiction       | 20           | Available | Thakazhi S Pillai      | Current Books       |
| *        | NULL                                        | NULL          | NULL         | NULL      | NULL                   | NULL                |

**Books 30** x

**Output:**

**Action Output**

| #  | Time     | Action                                                                                                                                                                                        | Message                                                  | Duration / Fetch      |
|----|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|-----------------------|
| 8  | 16:30:54 | create table Employee(Emp_id int primary key, Emp_name varchar(50), Position varchar(20), Salary int, Branch_no int)                                                                          | 0 row(s) affected                                        | 0.062 sec             |
| 9  | 16:31:14 | INSERT INTO Employee (Emp_id, Emp_name, Position, Salary, Branch_no) VALUES (1001, 'Rohan Kumar', 'Manager', 75000, 1)                                                                        | 10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0 | 0.016 sec             |
| 10 | 16:31:36 | select * from Employee LIMIT 0, 1000                                                                                                                                                          | 10 row(s) returned                                       | 0.016 sec / 0.000 sec |
| 11 | 16:34:25 | create table Books(ISBN int primary key, Book_title varchar(50), Category varchar(25), Rental_price int, Status varchar(10), Author varchar(50), Publisher varchar(50))                       | 0 row(s) affected                                        | 0.062 sec             |
| 12 | 16:34:36 | INSERT INTO Books (ISBN, Book_title, Category, Rental_price, Status, Author, Publisher) VALUES (97836987, 'Aadu Jeevitham', 'Autobiography', 28, 'Available', 'Bennyameen', 'ABC Publishers') | 10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0 | 0.032 sec             |
| 13 | 16:34:42 | select * from Books LIMIT 0, 1000                                                                                                                                                             | 10 row(s) returned                                       | 0.000 sec / 0.000 sec |

```

103 (5, 'Amal hafiz', 'Bypass Perinthalmanna', '2023-03-12'),
104 (6, 'Fida Rahman', 'Airport Road', '2020-04-16'),
105 (7, 'Janna', 'Gandi bhavan', '2018-04-19'),
106 (8, 'Hannah', 'nss road', '2022-03-7'),
107 (9, 'Amritha', 'university road ', '2021-04-07'),
108 (10, 'Jismy', 'town jn', '2021-04-22');
109 # displays table Customer
110 • select * from Customer;

```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content: | Result Grid | Form Editor | Field Types | Apply

| Customer_Id | Customer_name  | Customer_address      | Reg_date   |
|-------------|----------------|-----------------------|------------|
| 1           | Theertha veenu | sm street             | 2023-03-11 |
| 2           | Renuka.p       | Ottappalam            | 2019-04-30 |
| 3           | Shabna.k       | Vytyla jn             | 2020-04-13 |
| 4           | Dain           | IG Road               | 2021-03-10 |
| 5           | Amal hafiz     | Bypass Perinthalmanna | 2023-03-12 |
| 6           | Fida Rahman    | Airport Road          | 2020-04-16 |
| 7           | Janna          | Gandi bhavan          | 2018-04-19 |
| 8           | Hannah         | nss road              | 2022-03-07 |
| 9           | Amritha        | university road       | 2021-04-07 |
| 10          | Jismy          | town jn               | 2021-04-22 |
| • NULL      | NULL           | NULL                  | NULL       |

Customer 32 x

Output:

Action Output

| #  | Time     | Action                                                                                                   | Message                                                  | Duration / Fetch      |
|----|----------|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------|-----------------------|
| 12 | 16:34:36 | INSERT INTO Books (ISBN, Book_title, Category, Rental_price, Status, Author, Publisher) VALUES (97836... | 10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0 | 0.032 sec             |
| 13 | 16:34:42 | select * from Books LIMIT 0, 1000                                                                        | 10 row(s) returned                                       | 0.000 sec / 0.000 sec |
| 14 | 16:35:44 | create table Customer(Customer_id int primary key, Customer_name varchar(50), Customer_address varc...   | 0 row(s) affected                                        | 0.062 sec             |
| 15 | 16:35:58 | select * from Customer LIMIT 0, 1000                                                                     | 0 row(s) returned                                        | 0.000 sec / 0.000 sec |
| 16 | 16:36:08 | INSERT INTO Customer (Customer_id, Customer_name, Customer_address, Reg_date) VALUES (1, 'Theert...      | 10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0 | 0.000 sec             |
| 17 | 16:36:12 | select * from Customer LIMIT 0, 1000                                                                     | 10 row(s) returned                                       | 0.000 sec / 0.000 sec |

```

129 (6, 6, '2021-12-16', 97866666),
130 (7, 7, '2020-11-17', 97813579),
131 (8, 8, '2023-05-18', 97877777),
132 (9, 9, '2021-11-19', 97888888),
133 (10, 10, '2021-12-20', 97888888);
134
135 # displays table IssueStatus
136 • select * from IssueStatus;

```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content: | Result Grid | Form Editor | Field Types | Apply

| Issue_Id | Issued_cust | Issue_date | Isbn_book |
|----------|-------------|------------|-----------|
| 1        | 1           | 2023-03-11 | 97836987  |
| 2        | 2           | 2020-02-12 | 97812345  |
| 3        | 3           | 2020-04-13 | 97898765  |
| 4        | 4           | 2021-04-14 | 97824680  |
| 5        | 5           | 2023-06-15 | 97811111  |
| 6        | 6           | 2021-12-16 | 97866666  |
| 7        | 7           | 2020-11-17 | 97813579  |
| 8        | 8           | 2023-05-18 | 97877777  |
| 9        | 9           | 2021-11-19 | 97888888  |
| 10       | 10          | 2021-12-20 | 97888888  |
| • NULL   | NULL        | NULL       | NULL      |

IssueStatus 47 x

Output:

Action Output

| #  | Time     | Action                                                                                                           | Message                                                  | Duration / Fetch      |
|----|----------|------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|-----------------------|
| 12 | 16:57:00 | create table Customer(Customer_id int primary key, Customer_name varchar(50), Customer_address varc...           | 0 row(s) affected                                        | 0.031 sec             |
| 13 | 16:57:15 | INSERT INTO Customer (Customer_id, Customer_name, Customer_address, Reg_date) VALUES (1, 'Theert...              | 10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0 | 0.016 sec             |
| 14 | 16:57:19 | select * from Customer LIMIT 0, 1000                                                                             | 10 row(s) returned                                       | 0.000 sec / 0.000 sec |
| 15 | 16:57:27 | create table IssueStatus(Issue_id int primary key, Issued_cust int, foreign key(Issued_cust) references Custo... | 0 row(s) affected                                        | 0.062 sec             |
| 16 | 16:57:42 | INSERT INTO IssueStatus (Issue_id, Issued_cust, Issue_date, Isbn_book) VALUES (1, 1, '2023-03-11', 978...        | 10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0 | 0.016 sec             |
| 17 | 16:57:50 | select * from IssueStatus LIMIT 0, 1000                                                                          | 10 row(s) returned                                       | 0.000 sec / 0.000 sec |

```

155 (6, 'Fida Rahman', 'The Legends of Khasak', '2024-01-16', 97877777),
156 (7, 'Janna', 'Randamoozham', '2024-01-19', 97888888),
157 (8, 'Hannah', 'The Guide', '2024-01-10', 97877777),
158 (9, 'Amritha', 'The Elephant, The Tiger, and the Cell Phone', '2024-04-09', 97813579),
159 (10, 'Jismy', 'One Hundred Years of Solitude', '2024-03-23', 97836987);
160
161 # displays table ReturnStatus
162 • select * from ReturnStatus;

```

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

| Return_Id | Return_cust    | Return_book_name                            | Return_date | Isbn_book2 |
|-----------|----------------|---------------------------------------------|-------------|------------|
| 1         | Theertha veenu | Adu Jeewitham                               | 2024-05-05  | 97888888   |
| 2         | Renuka.p       | The God of Small Things                     | 2024-04-10  | 97836987   |
| 3         | Shabna.k       | Chemmeen                                    | 2024-02-22  | 97836987   |
| 4         | Dain           | The Hangman's Daughter                      | 2024-01-15  | 97813579   |
| 5         | Amal hafiz     | The Ivory Throne                            | 2024-03-15  | 97824680   |
| 6         | Fida Rahman    | The Legends of Khasak                       | 2024-01-16  | 97877777   |
| 7         | Janna          | Randamoozham                                | 2024-01-19  | 97888888   |
| 8         | Hannah         | The Guide                                   | 2024-01-10  | 97877777   |
| 9         | Amritha        | The Elephant, The Tiger, and the Cell Phone | 2024-04-09  | 97813579   |
| 10        | Jismy          | One Hundred Years of Solitude               | 2024-03-23  | 97836987   |
| *         | HULL           | HULL                                        | HULL        | HULL       |

ReturnStatus 34 X Apply

Output:

Action Output

| # | Time        | Action                                                                                                          | Message                                                  | Duration / Fetch      |
|---|-------------|-----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|-----------------------|
| ✓ | 18 16:37:23 | create table IssueStatus(Issue_id int primary key, Issued_cust int, foreign key(Issued_cust) references Cust... | 0 row(s) affected                                        | 0.094 sec             |
| ✓ | 19 16:37:32 | INSERT INTO IssueStatus (Issue_id, Issued_cust, Issue_date, Isbn_book) VALUES (1, 1, '2023-03-11', 978...       | 10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0 | 0.016 sec             |
| ✓ | 20 16:37:35 | select * from IssueStatus LIMIT 0, 1000                                                                         | 10 row(s) returned                                       | 0.000 sec / 0.000 sec |
| ✓ | 21 16:38:50 | create table ReturnStatus(Return_Id int primary key, Return_cust varchar(50), Return_book_name varchar...       | 0 row(s) affected                                        | 0.047 sec             |
| ✓ | 22 16:39:00 | INSERT INTO ReturnStatus (Return_Id, Return_cust, Return_book_name, Return_date, Isbn_book2) VALUE...           | 10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0 | 0.016 sec             |
| ✓ | 23 16:39:05 | select * from ReturnStatus LIMIT 0, 1000                                                                        | 10 row(s) returned                                       | 0.000 sec / 0.000 sec |

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

```

165 -- 1. Retrieve the book title, category, and rental price of all available books
166 • SELECT
167 Book_title,
168 Category,
169 Rental_Price
170 FROM
171 Books
172 WHERE
173

```

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

| Book_title                                  | Category      | Rental_Price |
|---------------------------------------------|---------------|--------------|
| The Ivory Throne                            | History       | 35           |
| The God of Small Things                     | Fiction       | 25           |
| Randamouzham                                | Fiction       | 30           |
| The Hangman's Daughter                      | Fiction       | 15           |
| Aadu Jeevitham                              | Autobiography | 28           |
| The Legends of Khasak                       | Fiction       | 25           |
| The Guide                                   | Fiction       | 25           |
| The Elephant, The Tiger, and the Cell Phone | Non-Fiction   | 30           |
| One Hundred Years of Solitude               | Fiction       | 35           |
| Chemmeen                                    | Fiction       | 20           |

Books 35 x

Output > Action Output

| #  | Time     | Action                                                                                                                           | Message                                                  | Duration / Fetch      |
|----|----------|----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|-----------------------|
| 19 | 16:37:32 | INSERT INTO IssueStatus (Issue_id, Issued_cust, Issue_date, ISBN_book) VALUES (1, 1, '2023-03-11', 978...)                       | 10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0 | 0.016 sec             |
| 20 | 16:37:35 | select * from IssueStatus LIMIT 0, 1000                                                                                          | 10 row(s) returned                                       | 0.000 sec / 0.000 sec |
| 21 | 16:38:50 | create table ReturnStatus(Return_Id int primary key, Return_cust varchar(50), Return_book_name varchar(50))                      | 0 row(s) affected                                        | 0.047 sec             |
| 22 | 16:39:00 | INSERT INTO ReturnStatus (Return_Id, Return_cust, Return_book_name, Return_date, ISBN_book2) VALUES (1, 1, '2023-03-11', 978...) | 10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0 | 0.016 sec             |
| 23 | 16:39:05 | select * from ReturnStatus LIMIT 0, 1000                                                                                         | 10 row(s) returned                                       | 0.000 sec / 0.000 sec |
| 24 | 16:41:22 | SELECT Book_title, Category, Rental_Price FROM Books WHERE Status = 'Available' LIMIT 0, 1000                                    | 10 row(s) returned                                       | 0.000 sec / 0.000 sec |

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

```

175 -- 2. List the employee names and their respective salaries in descending order of salary
176 • SELECT
177 Emp_name,
178 Salary
179 FROM
180 Employee
181 ORDER BY
182 Salary DESC;
...

```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Result Grid | Form Editor | Field Types

| Emp_name        | Salary |
|-----------------|--------|
| Rohan Kumar     | 75000  |
| Muhsina Shafeer | 68000  |
| Amal Jhone      | 60000  |
| Varun Krishna   | 55000  |
| Sneha Aravinth  | 45000  |
| Priya Ashok     | 42000  |
| Neha Joseph     | 41000  |
| Deepak Lal      | 40000  |
| Adam Asif       | 38000  |
| Rajesh Unni     | 32000  |

Employee 36 x Read Only

Output:

Action Output

| #  | Time     | Action                                                                                                                                                                          | Message                                                  | Duration / Fetch      |
|----|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|-----------------------|
| 20 | 16:37:35 | select * from IssueStatus LIMIT 0, 1000                                                                                                                                         | 10 row(s) returned                                       | 0.000 sec / 0.000 sec |
| 21 | 16:38:50 | create table ReturnStatus( Return_Id int primary key, Return_cust varchar(50), Return_book_name varchar(50), Return_date date, ISBN_book2 varchar(50))                          | 0 row(s) affected                                        | 0.047 sec             |
| 22 | 16:39:00 | INSERT INTO ReturnStatus (Return_Id, Return_cust, Return_book_name, Return_date, ISBN_book2) VALUES ('1', 'Renuka.p', 'The God of Small Things', '2023-09-15', '9780143410515') | 10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0 | 0.016 sec             |
| 23 | 16:39:05 | select * from ReturnStatus LIMIT 0, 1000                                                                                                                                        | 10 row(s) returned                                       | 0.000 sec / 0.000 sec |
| 24 | 16:41:22 | SELECT Book_title, Category, Rental_Price FROM Books WHERE Status = 'Available' LIMIT 0, 1000                                                                                   | 10 row(s) returned                                       | 0.000 sec / 0.000 sec |
| 25 | 16:42:43 | SELECT Emp_name, Salary FROM Employee ORDER BY Salary DESC LIMIT 0, 1000                                                                                                        | 10 row(s) returned                                       | 0.000 sec / 0.000 sec |

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

```

184 -- 3. Retrieve the book titles and the corresponding customers who have issued those books
185 • SELECT
186 b.Book_title,
187 c.Customer_name
188 FROM
189 IssueStatus i
190 JOIN Books b ON i.ISBN_book = b.ISBN
191 JOIN Customer c ON i.Issued_cust = c.Customer_Id;
...

```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Result Grid | Form Editor | Field Types

| Book_title                                  | Customer_name  |
|---------------------------------------------|----------------|
| Aadu Jeevitham                              | Theertha veenu |
| The God of Small Things                     | Renuka.p       |
| Chenneen                                    | Shabna.k       |
| The Hangman's Daughter                      | Dain           |
| The Ivory Throne                            | Amal hafiz     |
| The Legends of Khasak                       | Fida Rahman    |
| Randamozham                                 | Jarina         |
| The Guide                                   | Hannah         |
| The Elephant, The Tiger, and the Cell Phone | Amritha        |
| The Elephant, The Tiger, and the Cell Phone | Jismy          |

Result 37 x Read Only

Output:

Action Output

| #  | Time     | Action                                                                                                                                                                          | Message                                                  | Duration / Fetch      |
|----|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|-----------------------|
| 21 | 16:38:50 | create table ReturnStatus( Return_Id int primary key, Return_cust varchar(50), Return_book_name varchar(50), Return_date date, ISBN_book2 varchar(50))                          | 0 row(s) affected                                        | 0.047 sec             |
| 22 | 16:39:00 | INSERT INTO ReturnStatus (Return_Id, Return_cust, Return_book_name, Return_date, ISBN_book2) VALUES ('1', 'Renuka.p', 'The God of Small Things', '2023-09-15', '9780143410515') | 10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0 | 0.016 sec             |
| 23 | 16:39:05 | select * from ReturnStatus LIMIT 0, 1000                                                                                                                                        | 10 row(s) returned                                       | 0.000 sec / 0.000 sec |
| 24 | 16:41:22 | SELECT Book_title, Category, Rental_Price FROM Books WHERE Status = 'Available' LIMIT 0, 1000                                                                                   | 10 row(s) returned                                       | 0.000 sec / 0.000 sec |
| 25 | 16:42:43 | SELECT Emp_name, Salary FROM Employee ORDER BY Salary DESC LIMIT 0, 1000                                                                                                        | 10 row(s) returned                                       | 0.000 sec / 0.000 sec |
| 26 | 16:44:01 | SELECT b.Book_title, c.Customer_name FROM IssueStatus i JOIN Books b ON i.ISBN_book = b.ISBN JOIN Customer c ON i.Issued_cust = c.Customer_Id                                   | 10 row(s) returned                                       | 0.000 sec / 0.000 sec |

#### 4. Display the total count of books in each category.

```
193 -- 4. Display the total count of books in each category
194 • SELECT
195 Category,
196 COUNT(*) AS Total_Count
197 FROM
198 Books
199 GROUP BY
200 Category;
```

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

| Category      | Total_Count |
|---------------|-------------|
| History       | 1           |
| Fiction       | 7           |
| Autobiography | 1           |
| Non-Fiction   | 1           |

Result 38 x Read Only

Action Output

| #  | Time     | Action                                                                                                | Message                                                  | Duration / Fetch      |
|----|----------|-------------------------------------------------------------------------------------------------------|----------------------------------------------------------|-----------------------|
| 22 | 16:39:00 | INSERT INTO ReturnStatus (Return_Id, Return_cust, Return_book_name, Return_date, isbn_book2) VALUE... | 10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0 | 0.016 sec             |
| 23 | 16:39:05 | select * from ReturnStatus LIMIT 0, 1000                                                              | 10 row(s) returned                                       | 0.000 sec / 0.000 sec |
| 24 | 16:41:22 | SELECT Book_title, Category, Rental_Price FROM Books WHERE Status = 'Available' LIMIT 0, 1000         | 10 row(s) returned                                       | 0.000 sec / 0.000 sec |
| 25 | 16:42:43 | SELECT Emp_name, Salary FROM Employee ORDER BY Salary DESC LIMIT 0, 1000                              | 10 row(s) returned                                       | 0.000 sec / 0.000 sec |
| 26 | 16:44:01 | SELECT b.Book_title, c.Customer_name FROM IssueStatus i JOIN Books b ON i.isbn_book = b.ISBN J...     | 10 row(s) returned                                       | 0.000 sec / 0.000 sec |
| 27 | 16:45:14 | SELECT Category, COUNT(*) AS Total_Count FROM Books GROUP BY Category LIMIT 0, 1000                   | 4 row(s) returned                                        | 0.000 sec / 0.000 sec |

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

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

203 • SELECT  
204     Emp\_name,  
205     Position  
206    FROM  
207    Employee  
208    WHERE  
209    Salary > 50000;

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

| Emp_name        | Position          |
|-----------------|-------------------|
| Rohan Kumar     | Manager           |
| Varun Krishna   | Assistant Manager |
| Muhsina Shafeer | Manager           |
| Amal Jhone      | Assistant Manager |

**Action Output**

| #  | Time     | Action                                                                                                                                                                                                                                                  | Message            | Duration / Fetch      |
|----|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------------|
| 23 | 16:39:05 | select * from ReturnStatus LIMIT 0, 1000                                                                                                                                                                                                                | 10 row(s) returned | 0.000 sec / 0.000 sec |
| 24 | 16:41:22 | SELECT Book_title, Category, Rental_Price FROM Books WHERE Status = 'Available' LIMIT 0, 1000                                                                                                                                                           | 10 row(s) returned | 0.000 sec / 0.000 sec |
| 25 | 16:42:43 | SELECT Emp_name, Salary FROM Employee ORDER BY Salary DESC LIMIT 0, 1000                                                                                                                                                                                | 10 row(s) returned | 0.000 sec / 0.000 sec |
| 26 | 16:44:01 | SELECT b.Book_title, c.Customer_name FROM IssueStatus i JOIN Books b ON i.Issue_id = b.ISBN JOIN Customer c ON i.Customer_id = c.Customer_id WHERE i.Issue_Status = 'Issued' AND i.Issue_date < '2022-01-01' AND b.Status = 'Available' GROUP BY b.ISBN | 10 row(s) returned | 0.000 sec / 0.000 sec |
| 27 | 16:45:14 | SELECT Category, COUNT(*) AS Total_Count FROM Books GROUP BY Category LIMIT 0, 1000                                                                                                                                                                     | 4 row(s) returned  | 0.000 sec / 0.000 sec |
| 28 | 16:46:07 | SELECT Emp_name, Position FROM Employee WHERE Salary > 50000 LIMIT 0, 1000                                                                                                                                                                              | 4 row(s) returned  | 0.000 sec / 0.000 sec |

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

```

216 WHERE
217 Reg_date < '2022-01-01'
218 AND Customer_Id NOT IN (
219 SELECT
220 Issued_cust
221 FROM
222 IssueStatus
223);

```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Customer\_name

Customer 40 x Read Only

Action Output

| #  | Time     | Action                                                                                                                                                                                                                                                                                                | Message            | Duration / Fetch      |
|----|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------------|
| 24 | 16:41:22 | SELECT Book_title, Category, Rental_Price FROM Books WHERE Status = 'Available' LIMIT 0, 1000                                                                                                                                                                                                         | 10 row(s) returned | 0.000 sec / 0.000 sec |
| 25 | 16:42:43 | SELECT Emp_name, Salary FROM Employee ORDER BY Salary DESC LIMIT 0, 1000                                                                                                                                                                                                                              | 10 row(s) returned | 0.000 sec / 0.000 sec |
| 26 | 16:44:01 | SELECT b.Book_title, c.Customer_name FROM IssueStatus i JOIN Books b ON i.isbn_book = b.ISBN JOIN Customer c ON i.Customer_id = c.Customer_id WHERE i.Issue_Status = 'Issued' AND b.Status = 'Available' AND c.Reg_date < '2022-01-01' AND c.Customer_Id NOT IN (SELECT Issued_cust FROM IssueStatus) | 10 row(s) returned | 0.000 sec / 0.000 sec |
| 27 | 16:45:14 | SELECT Category, COUNT(*) AS Total_Count FROM Books GROUP BY Category LIMIT 0, 1000                                                                                                                                                                                                                   | 4 row(s) returned  | 0.000 sec / 0.000 sec |
| 28 | 16:46:07 | SELECT Emp_name, Position FROM Employee WHERE Salary > 50000 LIMIT 0, 1000                                                                                                                                                                                                                            | 4 row(s) returned  | 0.000 sec / 0.000 sec |
| 29 | 16:47:56 | SELECT Customer_name FROM Customer WHERE Reg_date < '2022-01-01' AND Customer_Id NOT IN (SELECT Issued_cust FROM IssueStatus)                                                                                                                                                                         | 0 row(s) returned  | 0.000 sec / 0.000 sec |

No customers...

7. Display the branch numbers and the total count of employees in each branch.

```

225 -- 7. Display the branch numbers and the total count of employees in each branch
226 • SELECT
227 Branch_no,
228 COUNT(*) AS Total_Employees
229 FROM
230 Employee
231 GROUP BY
232 Branch_no;
~~~
```

Result Grid | Filter Rows: Export: Wrap Cell Content: Result Grid | Form Editor | Field Types | Read Only

| Branch_no | Total_Employees |
|-----------|-----------------|
| 1         | 6               |
| 2         | 1               |
| 6         | 1               |
| 7         | 1               |
| 9         | 1               |

Result 55 x

Action Output

| #  | Time     | Action                                                                                             | Message            | Duration / Fetch      |
|----|----------|----------------------------------------------------------------------------------------------------|--------------------|-----------------------|
| 22 | 17:00:39 | SELECT Emp_name, Salary FROM Employee ORDER BY Salary DESC LIMIT 0, 1000                           | 10 row(s) returned | 0.000 sec / 0.000 sec |
| 23 | 17:00:45 | SELECT b.Book_title, c.Customer_name FROM IssueStatus i JOIN Books b ON i.lisbn_book = b.ISBN J... | 10 row(s) returned | 0.000 sec / 0.000 sec |
| 24 | 17:00:55 | SELECT Category, COUNT(*) AS Total_Count FROM Books GROUP BY Category LIMIT 0, 1000                | 4 row(s) returned  | 0.000 sec / 0.000 sec |
| 25 | 17:01:02 | SELECT Emp_name, Position FROM Employee WHERE Salary > 50000 LIMIT 0, 1000                         | 4 row(s) returned  | 0.000 sec / 0.000 sec |
| 26 | 17:01:16 | SELECT Customer_name FROM Customer WHERE Reg_date < '2022-01-01' AND Customer_Id NOT IN ...        | 0 row(s) returned  | 0.000 sec / 0.000 sec |
| 27 | 17:01:26 | SELECT Branch_no, COUNT(*) AS Total_Employees FROM Employee GROUP BY Branch_no LIMIT 0, ...        | 5 row(s) returned  | 0.000 sec / 0.000 sec |

8. Display the names of customers who have issued books in the month of June 2023.

235 • SELECT  
 236     c.Customer\_name  
 237    FROM  
 238    IssueStatus i  
 239   JOIN Customer c ON i.Issued\_cust = c.Customer\_Id  
 240   WHERE  
 241     MONTH (Issue\_date) = 6  
 242   AND YEAR (Issue\_date) = 2023;

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Result Grid | Form Editor | Field Types | Read Only

| Customer_name |
|---------------|
| Amal hafiz    |

Result 56 x

Output:

Action Output

| #  | Time     | Action                                                                                            | Message            | Duration / Fetch      |
|----|----------|---------------------------------------------------------------------------------------------------|--------------------|-----------------------|
| 23 | 17:00:45 | SELECT b.Book_title, c.Customer_name FROM IssueStatus i JOIN Books b ON i.isbn_book = b.ISBN J... | 10 row(s) returned | 0.000 sec / 0.000 sec |
| 24 | 17:00:55 | SELECT Category, COUNT(*) AS Total_Count FROM Books GROUP BY Category LIMIT 0, 1000               | 4 row(s) returned  | 0.000 sec / 0.000 sec |
| 25 | 17:01:02 | SELECT Emp_name, Position FROM Employee WHERE Salary > 50000 LIMIT 0, 1000                        | 4 row(s) returned  | 0.000 sec / 0.000 sec |
| 26 | 17:01:16 | SELECT Customer_name FROM Customer WHERE Reg_date < '2022-01-01' AND Customer_Id NOT IN ...       | 0 row(s) returned  | 0.000 sec / 0.000 sec |
| 27 | 17:01:26 | SELECT Branch_no, COUNT(*) AS Total_Employees FROM Employee GROUP BY Branch_no LIMIT 0, ...       | 5 row(s) returned  | 0.000 sec / 0.000 sec |
| 28 | 17:04:56 | SELECT c.Customer_name FROM IssueStatus i JOIN Customer c ON i.Issued_cust = c.Customer_Id WHE... | 1 row(s) returned  | 0.000 sec / 0.000 sec |

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

243  
 244 -- 9. Retrieve book\_title from book table containing history  
 245 • SELECT  
 246     Book\_title  
 247    FROM  
 248    Books  
 249   WHERE  
 250     Category = 'History';

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Result Grid | Form Editor | Field Types | Read Only

| Book_title       |
|------------------|
| The Ivory Throne |

Books 22 x

Output:

Action Output

| #  | Time     | Action                                                                                            | Message           | Duration / Fetch      |
|----|----------|---------------------------------------------------------------------------------------------------|-------------------|-----------------------|
| 20 | 16:04:50 | SELECT Emp_name, Position FROM Employee WHERE Salary > 50000 LIMIT 0, 1000                        | 4 row(s) returned | 0.000 sec / 0.000 sec |
| 21 | 16:06:31 | SELECT Customer_name FROM Customer WHERE Reg_date < '2022-01-01' AND Customer_Id NOT IN ...       | 0 row(s) returned | 0.000 sec / 0.000 sec |
| 22 | 16:06:51 | SELECT Customer_name FROM Customer WHERE Reg_date < '2022-01-01' AND Customer_Id NOT IN ...       | 0 row(s) returned | 0.000 sec / 0.000 sec |
| 23 | 16:08:33 | SELECT Branch_no, COUNT(*) AS Total_Employees FROM Employee GROUP BY Branch_no LIMIT 0, ...       | 7 row(s) returned | 0.000 sec / 0.000 sec |
| 24 | 16:09:58 | SELECT c.Customer_name FROM IssueStatus i JOIN Customer c ON i.Issued_cust = c.Customer_Id WHE... | 0 row(s) returned | 0.000 sec / 0.000 sec |
| 25 | 16:10:18 | SELECT Book_title FROM Books WHERE Category = 'History' LIMIT 0, 1000                             | 1 row(s) returned | 0.000 sec / 0.000 sec |

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

```
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 Content: | Result Grid | Form Editor | Field Types | Read Only

| Branch_no | Total_Employees |
|-----------|-----------------|
| 1         | 6               |

Action Output

| #  | Time     | Action                                                                                               | Message           | Duration / Fetch      |
|----|----------|------------------------------------------------------------------------------------------------------|-------------------|-----------------------|
| 25 | 17:01:02 | SELECT Emp_name, Position FROM Employee WHERE Salary > 50000 LIMIT 0, 1000                           | 4 row(s) returned | 0.000 sec / 0.000 sec |
| 26 | 17:01:16 | SELECT Customer_name FROM Customer WHERE Reg_date < '2022-01-01' AND Customer_Id NOT IN ...          | 0 row(s) returned | 0.000 sec / 0.000 sec |
| 27 | 17:01:26 | SELECT Branch_no, COUNT(*) AS Total_Employees FROM Employee GROUP BY Branch_no LIMIT 0, ...          | 5 row(s) returned | 0.000 sec / 0.000 sec |
| 28 | 17:04:56 | SELECT c.Customer_name FROM IssueStatus i JOIN Customer c ON i.Issued_cust = c.Customer_Id WHERE ... | 1 row(s) returned | 0.000 sec / 0.000 sec |
| 29 | 17:07:55 | SELECT Book_title FROM Books WHERE Category = 'History' LIMIT 0, 1000                                | 1 row(s) returned | 0.000 sec / 0.000 sec |
| 30 | 17:08:05 | SELECT Branch_no, COUNT(*) AS Total_Employees FROM Employee GROUP BY Branch_no HAVING ...            | 1 row(s) returned | 0.000 sec / 0.000 sec |

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';

```

Result Grid | Filter Rows: Export: Wrap Cell Content: Result Grid Form Editor Field Types

| Emp_name        | Branch_address                   |
|-----------------|----------------------------------|
| Rohan Kumar     | 45 Ayyanthole, Thrissur, Kerala  |
| Muhsina Shafeer | 48 Down Hill, Malappuram, Kerala |

Result 59 X Read Only

Output:

Action Output

| #  | Time     | Action                                                                                                                                                                                  | Message           | Duration / Fetch      |
|----|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-----------------------|
| 26 | 17:01:16 | SELECT Customer_name FROM Customer WHERE Reg_date < '2022-01-01' AND Customer_Id NOT IN ...                                                                                             | 0 row(s) returned | 0.000 sec / 0.000 sec |
| 27 | 17:01:26 | SELECT Branch_no, COUNT(*) AS Total_Employees FROM Employee GROUP BY Branch_no LIMIT 0, ...                                                                                             | 5 row(s) returned | 0.000 sec / 0.000 sec |
| 28 | 17:04:56 | SELECT c.Customer_name FROM IssueStatus i JOIN Customer c ON i.Issued_cust = c.Customer_Id WHERE i.Issued_Status = 'P' AND c.Customer_Status = 'A' AND i.Issued_Branch_no = b.Branch_no | 1 row(s) returned | 0.000 sec / 0.000 sec |
| 29 | 17:07:55 | SELECT Book_title FROM Books WHERE Category = 'History' LIMIT 0, 1000                                                                                                                   | 1 row(s) returned | 0.000 sec / 0.000 sec |
| 30 | 17:08:05 | SELECT Branch_no, COUNT(*) AS Total_Employees FROM Employee GROUP BY Branch_no HAVING COUNT(*) > 10                                                                                     | 1 row(s) returned | 0.000 sec / 0.000 sec |
| 31 | 17:10:15 | SELECT e.Emp_name, b.Branch_address FROM Employee e JOIN Branch b ON e.Branch_no = b.Branch_no WHERE e.Position = 'Manager'                                                             | 2 row(s) returned | 0.000 sec / 0.000 sec |

12. Display the names of customers who have issued books with a rental price higher than Rs. 25.

```

274 • SELECT
275     c.Customer_name
276     FROM
277     IssueStatus i
278     JOIN Customer c ON i.Issued_cust = c.Customer_Id
279     JOIN Books b ON i.ISBN_book = b.ISBN
280     WHERE
281     b.Rental_Price > 25;

```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Result Grid | Form Editor | Field Types

| Customer_name  |
|----------------|
| Amal hafiz     |
| Janna          |
| Theertha veenu |
| Amritha        |
| Jismy          |

Result 60 X Read Only

Action Output

| #  | Time     | Action                                                                                                                                                     | Message           | Duration / Fetch      |
|----|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-----------------------|
| 27 | 17:01:26 | SELECT Branch_no, COUNT(*) AS Total_Employees FROM Employee GROUP BY Branch_no LIMIT 0, ...                                                                | 5 row(s) returned | 0.000 sec / 0.000 sec |
| 28 | 17:04:56 | SELECT c.Customer_name FROM IssueStatus i JOIN Customer c ON i.Issued_cust = c.Customer_Id WHERE ...                                                       | 1 row(s) returned | 0.000 sec / 0.000 sec |
| 29 | 17:07:55 | SELECT Book_title FROM Books WHERE Category = 'History' LIMIT 0, 1000                                                                                      | 1 row(s) returned | 0.000 sec / 0.000 sec |
| 30 | 17:08:05 | SELECT Branch_no, COUNT(*) AS Total_Employees FROM Employee GROUP BY Branch_no HAVING ...                                                                  | 1 row(s) returned | 0.000 sec / 0.000 sec |
| 31 | 17:10:15 | SELECT e.Emp_name, b.Branch_address FROM Employee e JOIN Branch b ON e.Branch_no = b.Branch_no                                                             | 2 row(s) returned | 0.000 sec / 0.000 sec |
| 32 | 17:11:48 | SELECT c.Customer_name FROM IssueStatus i JOIN Customer c ON i.Issued_cust = c.Customer_Id JOIN Books b ON i.ISBN_book = b.ISBN WHERE b.Rental_Price > 25; | 5 row(s) returned | 0.000 sec / 0.000 sec |