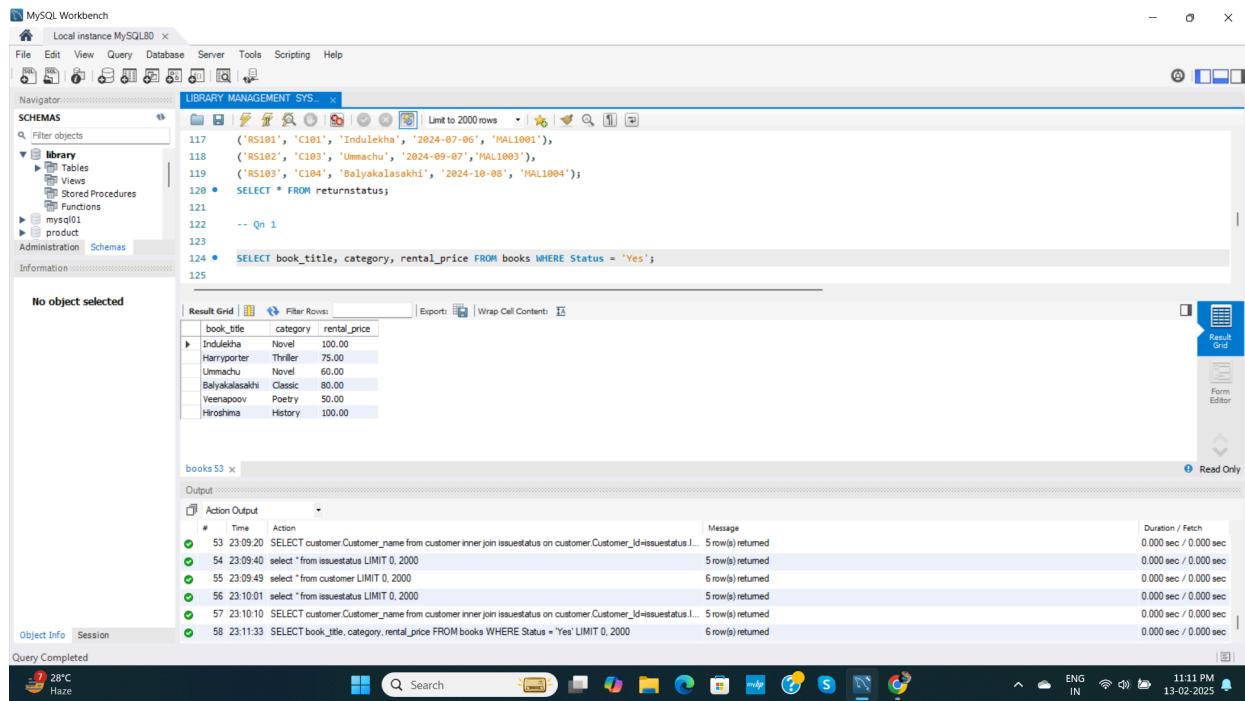


# SQL PROJECT

## LIBRARY MANAGEMENT SYSTEM

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



The screenshot shows the MySQL Workbench interface with a query editor and results grid. The query retrieves book details from the 'books' table where the status is 'Yes'. The results show six books with their titles, categories, and rental prices.

```
SELECT book_title, category, rental_price FROM books WHERE Status = 'Yes';
```

book_title	category	rental_price
Indulekha	Novel	100.00
Harrypoter	Thriller	75.00
Ummadhu	Novel	60.00
Balyakalsakhi	Classic	80.00
Veenapov	Poetry	50.00
Hiroshima	History	100.00

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

MySQL Workbench

Local instance MySQL80 X

File Edit View Query Database Server Tools Scripting Help

Navigator: LIBRARY MANAGEMENT SYS.

SCHEMAS: Library, mysql01, product

LIBRARY MANAGEMENT SYS. X

```

121
122 -- Qn 1
123
124 •   SELECT book_title, category, rental_price FROM books WHERE Status = 'Yes';
125
126 -- Qn 2
127
128 •   SELECT emp_name, salary FROM employee ORDER BY Salary DESC;
129

```

No object selected

Result Grid | Filter Rows: Export: Wrap Cell Contents: Result Grid Form Editor

emp_name	salary
Sivan	60000.00
Malavika	55000.00
Vidya	52000.00
Dharsana	50000.00
Jithendar	45000.00
Manu	43000.00
Manju	42000.00
Devayani	40000.00

employee 54 x Output

Action Output

#	Time	Action	Message	Duration / Fetch
54	23:09:40	select * from issuestatus LIMIT 0, 2000	5 row(s) returned	0.000 sec / 0.000 sec
55	23:09:49	select * from customer LIMIT 0, 2000	6 row(s) returned	0.000 sec / 0.000 sec
56	23:10:01	select * from issuestatus LIMIT 0, 2000	5 row(s) returned	0.000 sec / 0.000 sec
57	23:10:10	SELECT customer.Customer_name FROM customer inner join issuestatus on customer.Customer_Id=issuestatus...	5 row(s) returned	0.000 sec / 0.000 sec
58	23:11:33	SELECT book_title, category, rental_price FROM books WHERE Status = 'Yes' LIMIT 0, 2000	6 row(s) returned	0.000 sec / 0.000 sec
59	23:16:44	SELECT emp_name, salary FROM employee ORDER BY Salary DESC LIMIT 0, 2000	8 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

Query Completed

28°C Haze

Search

11:18 PM 13-02-2025

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

MySQL Workbench

Local instance MySQL80 X

File Edit View Query Database Server Tools Scripting Help

Navigator: LIBRARY MANAGEMENT SYS.

SCHEMAS: Library, mysql01, product

LIBRARY MANAGEMENT SYS. X

```

126 -- Qn 2
127
128 •   SELECT emp_name, salary FROM employee ORDER BY Salary DESC;
129
130 -- Qn 3
131
132 •   SELECT issuestatus.Issued_book_name, customer.Customer_name FROM issuestatus INNER JOIN
133 customer ON issuestatus.Issued_cust = customer.Customer_Id;
134

```

No object selected

Result Grid | Filter Rows: Export: Wrap Cell Contents: Result Grid Form Editor

Issued_book_name	Customer_name
Indulekha	Aswathy
Harryporter	Shibu
Ummadu	JITHU
Balyakalasakhi	ANIL
Veenapoo	AMBILI

issuestatus 58 x Output

Action Output

#	Time	Action	Message	Duration / Fetch
58	23:11:33	SELECT book_title, category, rental_price FROM books WHERE Status = 'Yes' LIMIT 0, 2000	6 row(s) returned	0.000 sec / 0.000 sec
59	23:16:44	SELECT emp_name, salary FROM employee ORDER BY Salary DESC LIMIT 0, 2000	8 row(s) returned	0.000 sec / 0.000 sec
60	23:21:13	SELECT issuestatus.Issued_book_name, customer.Customer_name FROM issuestatus INNER JOIN customer...	5 row(s) returned	0.000 sec / 0.000 sec
61	23:29:14	SELECT Category, COUNT(book_title) FROM books GROUP BY Category LIMIT 0, 2000	5 row(s) returned	0.000 sec / 0.000 sec
62	23:33:33	SELECT emp_name, position FROM employee WHERE Salary > 50000 LIMIT 0, 2000	3 row(s) returned	0.000 sec / 0.000 sec
63	23:35:58	SELECT issuestatus.Issued_book_name, customer.Customer_name FROM issuestatus INNER JOIN customer...	5 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

Query Completed

27°C Mostly clear

Search

11:36 PM 13-02-2025

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

The screenshot shows the MySQL Workbench interface with the following details:

- File Bar:** Local instance MySQL80 X, File, Edit, View, Query, Database, Server, Tools, Scripting, Help.
- Navigator:** Schemas, Library (Tables, Views, Stored Procedures, Functions), mysql01, product.
- Query Editor:** LIBRARY MANAGEMENT SYS...  
130 -- Qn 3  
131  
132 • SELECT issuestatus.Issued\_book\_name, customer.Customer\_name FROM issuestatus INNER JOIN customer ON issuestatus.Issued\_cust = customer.Customer\_Id;  
133  
134  
135 -- Qn 4  
136  
137 • SELECT Category, COUNT(Book\_title) FROM books GROUP BY Category;  
138
- Result Grid:** Category COUNT(Book\_title)  
Novel 2  
Thriller 1  
Classic 1  
Poetry 1  
History 1
- Output:** Action Output (List of SQL queries and their execution details).

#	Time	Action	Message	Duration / Fetch
59	23:16:44	SELECT emp_name, salary FROM employee ORDER BY Salary DESC LIMIT 0, 2000	8 row(s) returned	0.000 sec / 0.000 sec
60	23:21:13	SELECT issuestatus.Issued_book_name, customer.Customer_name FROM issuestatus INNER JOIN customer ...	5 row(s) returned	0.000 sec / 0.000 sec
61	23:29:14	SELECT Category, COUNT(Book_title) FROM books GROUP BY Category LIMIT 0, 2000	5 row(s) returned	0.000 sec / 0.000 sec
62	23:33:33	SELECT emp_name, position FROM employee WHERE Salary > 50000 LIMIT 0, 2000	3 row(s) returned	0.000 sec / 0.000 sec
63	23:35:58	SELECT issuestatus.Issued_book_name, customer.Customer_name FROM issuestatus INNER JOIN customer ...	5 row(s) returned	0.000 sec / 0.000 sec
64	23:36:35	SELECT Category, COUNT(Book_title) FROM books GROUP BY Category LIMIT 0, 2000	5 row(s) returned	0.000 sec / 0.000 sec
- System Bar:** Read Only, Object Info, Session, Query Completed, 27°C Mostly clear, Search, Task View, File Explorer, Taskbar, ENG IN, 11:36 PM, 13-02-2025, Bell icon.

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

MySQL Workbench

Local instance MySQL80 X

File Edit View Query Database Server Tools Scripting Help

Navigator: LIBRARY MANAGEMENT SYS...

Schemas: Library, mysql01, product

Administration: Schemas

No object selected

LIBRARY MANAGEMENT SYS...

```

134
135 -- Qn 4
136
137 • SELECT Category, COUNT(Book_title) FROM books GROUP BY Category;
138
139 -- Qn 5
140
141 • SELECT emp_name, position FROM employee WHERE Salary > 50000;
142

```

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

emp_name	position
Sivan	Manager
Malavika	Librarian
Yidya	Casher

employee 60 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
60	23:21:13	SELECT issuestatus.Issued_book_name, customer.Customer_name FROM issuestatus INNER JOIN customer ON issuestatus.Customer_Id = customer.Customer_Id WHERE issuestatus.Issued_date < '2022-01-01' AND Customer_Id NOT IN (SELECT issued_cust FROM issuestatus);	5 row(s) returned	0.000 sec / 0.000 sec
61	23:29:14	SELECT Category, COUNT(Book_title) FROM books GROUP BY Category LIMIT 0, 2000	5 row(s) returned	0.000 sec / 0.000 sec
62	23:33:33	SELECT emp_name, position FROM employee WHERE Salary > 50000 LIMIT 0, 2000	3 row(s) returned	0.000 sec / 0.000 sec
63	23:35:58	SELECT issuestatus.Issued_book_name, customer.Customer_name FROM issuestatus INNER JOIN customer ON issuestatus.Customer_Id = customer.Customer_Id WHERE issuestatus.Issued_date < '2022-01-01' AND Customer_Id NOT IN (SELECT issued_cust FROM issuestatus);	5 row(s) returned	0.000 sec / 0.000 sec
64	23:36:35	SELECT Category, COUNT(Book_title) FROM books GROUP BY Category LIMIT 0, 2000	5 row(s) returned	0.000 sec / 0.000 sec
65	23:37:17	SELECT emp_name, position FROM employee WHERE Salary > 50000 LIMIT 0, 2000	3 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

Query Completed

27°C Mostly clear

27°C Mostly clear

ENG IN 11:37 PM 13-02-2025

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

MySQL Workbench

Local instance MySQL80 X

File Edit View Query Database Server Tools Scripting Help

Navigator: LIBRARY MANAGEMENT SYS...

Schemas: Library, mysql01, product

Administration: Schemas

No object selected

LIBRARY MANAGEMENT SYS...

```

139 -- Qn 5
140
141 • SELECT emp_name, position FROM employee WHERE Salary > 50000;
142
143 -- Qn 6
144
145 • SELECT customer_name FROM customer WHERE Reg_date < '2022-01-01' AND Customer_Id NOT IN
146 (SELECT issued_cust FROM issuestatus);
147

```

customer 61 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
61	23:29:14	SELECT Category, COUNT(Book_title) FROM books GROUP BY Category LIMIT 0, 2000	5 row(s) returned	0.000 sec / 0.000 sec
62	23:33:33	SELECT emp_name, position FROM employee WHERE Salary > 50000 LIMIT 0, 2000	3 row(s) returned	0.000 sec / 0.000 sec
63	23:35:58	SELECT issuestatus.Issued_book_name, customer.Customer_name FROM issuestatus INNER JOIN customer ON issuestatus.Customer_Id = customer.Customer_Id WHERE issuestatus.Issued_date < '2022-01-01' AND Customer_Id NOT IN (SELECT issued_cust FROM issuestatus);	5 row(s) returned	0.000 sec / 0.000 sec
64	23:36:35	SELECT Category, COUNT(Book_title) FROM books GROUP BY Category LIMIT 0, 2000	5 row(s) returned	0.000 sec / 0.000 sec
65	23:37:17	SELECT emp_name, position FROM employee WHERE Salary > 50000 LIMIT 0, 2000	3 row(s) returned	0.000 sec / 0.000 sec
66	23:38:47	SELECT customer_name FROM customer WHERE Reg_date < '2022-01-01' AND Customer_Id NOT IN (SELECT issued_cust FROM issuestatus);	1 row(s) returned	0.016 sec / 0.000 sec

Object Info Session

Query Completed

27°C Mostly clear

27°C Mostly clear

ENG IN 11:38 PM 13-02-2025

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

The screenshot shows the MySQL Workbench interface with the following details:

- File Bar:** File, Edit, View, Query, Database, Server, Tools, Scripting, Help.
- Schemas:** Local instance MySQL80, currently viewing the LIBRARY MANAGEMENT SYS schema.
- Queries:** A list of numbered SQL statements being executed:
  - 156 - UPDATE employee SET branch\_no = 'B101' WHERE emp\_id = 'E102';
  - 157 - UPDATE employee SET branch\_no = 'B101' WHERE emp\_id = 'E103';
  - 158 - UPDATE employee SET branch\_no = 'B101' WHERE emp\_id = 'E104';
  - 159 - UPDATE employee SET branch\_no = 'B102' WHERE emp\_id = 'E105';
  - 160 - UPDATE employee SET branch\_no = 'B102' WHERE emp\_id = 'E106';
  - 161 - UPDATE employee SET branch\_no = 'B103' WHERE emp\_id = 'E106';
  - 162 - (empty)
  - 163 - SELECT Branch\_no, COUNT(emp\_id) FROM employee GROUP BY Branch\_no;
  - 164 - (empty)
- Result Grid:** Shows the output of the last query:

Branch_no	COUNT(emp_id)
B101	6
B102	1
B103	1
- Action Output:** A log of recent actions with their execution times and durations:

Action	Time	Duration / Fetch
62 - SELECT emp_name, position FROM employee WHERE Salary > 50000 LIMIT 0, 2000	23:33:33	0.000 sec / 0.000 sec
63 - SELECT issueat.Issued_book_name, customer.Customer_name FROM issueat INNER JOIN customer ON issueat.Customer_id = customer.Customer_id	23:35:59	0.000 sec / 0.000 sec
64 - SELECT Category, COUNT(Book_title) FROM books GROUP BY Category LIMIT 0, 2000	23:36:35	0.000 sec / 0.000 sec
65 - SELECT emp_name, position FROM employee WHERE Salary > 50000 LIMIT 0, 2000	23:37:17	0.000 sec / 0.000 sec
66 - SELECT customer_name FROM customer WHERE Reg_date > '2022-01-01' AND Customer_id NOT IN (SELECT Customer_id FROM issueat)	23:38:47	0.016 sec / 0.000 sec
67 - SELECT Branch_no, COUNT(emp_id) FROM employee GROUP BY Branch_no LIMIT 0, 2000	23:40:07	0.000 sec / 0.000 sec
- Status Bar:** Shows system status (ENG IN), network connection (IN), battery level (27%), and system date/time (13-02-2025).

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

MySQL Workbench

Local instance MySQL80 X

File Edit View Query Database Server Tools Scripting Help

Navigator: LIBRARY MANAGEMENT SYS.

SCHEMAS: Library, mysql01, product

Administration: Schemas

No object selected

```

162
163 •   SELECT Branch_no, COUNT(emp_id) FROM employee GROUP BY Branch_no;
164
165 -- Qn 8
166
167 •   SELECT customer.Customer_name FROM customer INNER JOIN issuestatus ON
168     customer.Customer_Id = issuestatus.Issued_cust WHERE issuestatus.Issue_date >= '2023-06-01' AND
169     issuestatus.Issue_date <= '2023-06-30';
170

```

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

Customer_name
AMBILI

Result 64 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
65	23:37:17	SELECT emp_name, position FROM employee WHERE Salary > 50000 LIMIT 0, 2000	3 row(s) returned	0.000 sec / 0.000 sec
66	23:38:47	SELECT customer_name FROM customer WHERE Reg_date < 2022-01-01 AND Customer_Id NOT IN (SEL...	1 row(s) returned	0.016 sec / 0.000 sec
67	23:40:07	SELECT Branch_no, COUNT(Temp_id) FROM employee GROUP BY Branch_no LIMIT 0, 2000	3 row(s) returned	0.000 sec / 0.000 sec
68	23:41:59	SELECT customer.Customer_name FROM customer INNER JOIN issuestatus ON customer.Customer_Id = iss...	1 row(s) returned	0.000 sec / 0.000 sec
69	23:42:18	UPDATE employee SET branch_no = 'B101' WHERE emp_id = 'E106'	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0	0.016 sec
70	23:42:38	SELECT customer.Customer_name FROM customer INNER JOIN issuestatus ON customer.Customer_Id = iss...	1 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

Query Completed

27°C Mostly clear

Search

ENG IN 11:42 PM 13-02-2025

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

MySQL Workbench

Local instance MySQL80 X

File Edit View Query Database Server Tools Scripting Help

Navigator: LIBRARY MANAGEMENT SYS.

SCHEMAS: Library, mysql01, product

Administration: Schemas

No object selected

```

166
167 •   SELECT customer.Customer_name FROM customer INNER JOIN issuestatus ON
168     customer.Customer_Id = issuestatus.Issued_cust WHERE issuestatus.Issue_date >= '2023-06-01' AND
169     issuestatus.Issue_date <= '2023-06-30';
170
171 -- Qn 9
172
173 •   SELECT book_title FROM books WHERE Category = 'history';
174

```

books 65 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
66	23:38:47	SELECT customer_name FROM customer WHERE Reg_date < 2022-01-01 AND Customer_Id NOT IN (SEL...	1 row(s) returned	0.016 sec / 0.000 sec
67	23:40:07	SELECT Branch_no, COUNT(Temp_id) FROM employee GROUP BY Branch_no LIMIT 0, 2000	3 row(s) returned	0.000 sec / 0.000 sec
68	23:41:59	SELECT customer.Customer_name FROM customer INNER JOIN issuestatus ON customer.Customer_Id = iss...	1 row(s) returned	0.000 sec / 0.000 sec
69	23:42:18	UPDATE employee SET branch_no = 'B101' WHERE emp_id = 'E106'	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0	0.016 sec
70	23:42:38	SELECT customer.Customer_name FROM customer INNER JOIN issuestatus ON customer.Customer_Id = iss...	1 row(s) returned	0.000 sec / 0.000 sec
71	23:44:19	SELECT book_title FROM books WHERE Category = 'history' LIMIT 0, 2000	1 row(s) returned	0.016 sec / 0.000 sec

Object Info Session

Query Completed

27°C Mostly clear

Search

ENG IN 11:44 PM 13-02-2025

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

The screenshot shows the MySQL Workbench interface with the following details:

- Navigator:** Shows the schema structure under "LIBRARY MANAGEMENT SYS...".
- Query Editor:** Displays the following SQL code:

```
170 -- Qn 9
171
172
173 • SELECT book_title FROM books WHERE Category = 'history';
174
175 -- Qn 10
176
177 • SELECT branch_no, COUNT(emp_id) FROM employee GROUP BY branch_no HAVING COUNT(Emp_id) > 5;
178
```
- Result Grid:** Shows the output of the last query:

branch_no	COUNT(emp_id)
B101	7
- Action Output:** Shows the log of actions taken by the session, including queries and updates, with their execution times and message details.
- System Tray:** Shows the date and time as 13-02-2025, 11:45 PM.

**11. Retrieve the names of employees who manage branches and their respective branch addresses.**

MySQL Workbench

Local instance MySQL80 X

File Edit View Query Database Server Tools Scripting Help

Navigator: LIBRARY

SCHEMAS: Library, mysql01, product

LIBRARY MANAGEMENT SYS. X

```

177 • SELECT branch_no, COUNT(emp_id) FROM employee GROUP BY branch_no HAVING COUNT(Emp_id) > 5;
178
179 -- Qn 11
180
181 • SELECT employee.Emp_name, branch.Branch_address
182   FROM Employee
183     INNER JOIN Branch ON employee.branch_no= branch.Branch_no
184   WHERE employee.Position = 'Manager'; | 185

```

No object selected

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

Emp_name	Branch_address
Sivan	L2 Kollam

Result 67 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
68	23:41:59	SELECT customer.Customer_name FROM customer INNER JOIN issuestatus ON customer.Customer_Id = issuestatus.Customer_Id WHERE emp_id = 101	1 row(s) returned	0.000 sec / 0.000 sec
69	23:42:18	UPDATE employee SET branch_no = B101 WHERE emp_id = E106	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0	0.016 sec
70	23:42:38	SELECT customer.Customer_name FROM customer INNER JOIN issuestatus ON customer.Customer_Id = issuestatus.Customer_Id WHERE emp_id = 101	1 row(s) returned	0.000 sec / 0.000 sec
71	23:44:19	SELECT book_title FROM books WHERE Category = 'history' LIMIT 0, 2000	1 row(s) returned	0.016 sec / 0.000 sec
72	23:45:36	SELECT branch_no, COUNT(emp_id) FROM employee GROUP BY branch_no HAVING COUNT(Emp_id) > 5;	1 row(s) returned	0.000 sec / 0.000 sec
73	23:46:51	SELECT employee.Emp_name, branch.Branch_address FROM Employee INNER JOIN Branch ON employee.branch_no = branch.Branch_no WHERE employee.Position = 'Manager';	1 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

Query Completed

27°C Mostly clear

27°C Mostly clear

Search

ENG IN 11:46 PM 13-02-2025

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

MySQL Workbench

Local instance MySQL80 X

File Edit View Query Database Server Tools Scripting Help

Navigator: LIBRARY

SCHEMAS: Library, mysql01, product

LIBRARY MANAGEMENT SYS. X

```

184 • WHERE employee.Position = 'Manager';
185
186 -- Qn 12
187
188 • SELECT customer.Customer_name FROM customer
189   INNER JOIN issuestatus ON customer.Customer_Id=issuestatus.Issued_customer_id
190   INNER JOIN books ON issuestatus.Issn_book=books.ISBN
191   WHERE books.Rental_Price>25; | 192

```

No object selected

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

Customer_name
Aswathy
Shibu
JITHU
ANIL
AMBILI

Result 68 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
69	23:42:18	UPDATE employee SET branch_no = B101 WHERE emp_id = E106	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0	0.016 sec
70	23:42:38	SELECT customer.Customer_name FROM customer INNER JOIN issuestatus ON customer.Customer_Id = issuestatus.Customer_Id WHERE emp_id = 101	1 row(s) returned	0.000 sec / 0.000 sec
71	23:44:19	SELECT book_title FROM books WHERE Category = 'history' LIMIT 0, 2000	1 row(s) returned	0.016 sec / 0.000 sec
72	23:45:36	SELECT branch_no, COUNT(emp_id) FROM employee GROUP BY branch_no HAVING COUNT(Emp_id) > 5;	1 row(s) returned	0.000 sec / 0.000 sec
73	23:46:51	SELECT employee.Emp_name, branch.Branch_address FROM Employee INNER JOIN Branch ON employee.branch_no = branch.Branch_no WHERE employee.Position = 'Manager';	1 row(s) returned	0.000 sec / 0.000 sec
74	23:48:22	SELECT customer.Customer_name FROM customer INNER JOIN issuestatus ON customer.Customer_Id=issuestatus.Issued_customer_id WHERE books.Rental_Price>25	5 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

Query Completed

27°C Mostly clear

27°C Mostly clear

Search

ENG IN 11:48 PM 13-02-2025