Module 3: Library Management System

This project aims to create a database-driven library management system to efficiently track books, customers, and transactions. It will include tables for branches, employees, books, customers, book issuance, and returns.

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

```
103
104     -- QUERIES--
105     -- 1
106 •   SELECT Book_title, Category, Rental_Price
107     FROM Books
108     WHERE Status = 'Yes';
109
```

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

	Book_title	Category	Rental_Price
▶	The Lord of the Rings	Fantasy	9.99
	Pride and Prejudice	Fiction	5.99

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

```
111 •  SELECT Emp_name, Salary
112    FROM Employee
113    ORDER BY Salary DESC;
114
```

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

Emp_name	Salary
George	80000
Ashly	70000
Jibin	50000
Gopika	45000
Justin	40000

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

```
116 •  SELECT b.Book_title, c.Customer_name
117    FROM IssueStatus i
118    JOIN Books b ON i.Isbn_book = b.ISBN
119    JOIN Customer c ON i.Issued_cust = c.Customer_Id;
120
```

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

Book_title	Customer_name
Pride and Prejudice	Richu
To Kill a Mockingbird	Goshal

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

```
122     -- 4
123 •   SELECT Category, COUNT(*) AS Total_Books
124     FROM Books
125     GROUP BY Category;
126
```

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

Category	Total_Books
Dystopian	1
Fiction	2
Fantasy	1

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

```
127     -- 5
128 •   SELECT Emp_name, Position
129     FROM Employee
130     WHERE Salary > 50000;
131
```

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

Emp_name	Position
Ashly	Manager
George	Manager

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

```
132 •  SELECT c.Customer_name
133    FROM Customer c
134    LEFT JOIN IssueStatus i ON c.Customer_Id = i.Issued_cust
135    WHERE c.Reg_date < '2022-01-01' AND i.Issue_Id IS NULL;
```

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

Customer_name

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

```
138 •  SELECT Branch_no, COUNT(Emp_Id) AS Total_Employees
139    FROM Employee
140    GROUP BY Branch_no;
141
```

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

Branch_no	Total_Employees
1	2
2	2
3	1

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

```
144 •  SELECT DISTINCT c.Customer_name
145    FROM IssueStatus i
146    JOIN Customer c ON i.Issued_cust = c.Customer_Id
147    WHERE MONTH(Issue_date) = 6 AND YEAR(Issue_date) = 2023;
148
```

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

Customer_name

9. Retrieve book_title from a book table containing history.

```
150 •  SELECT Book_title
151    FROM Books
152    WHERE Book_title LIKE '%History%';
153
```

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

Book_title

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

```
155 •  SELECT Branch_no, COUNT(Emp_Id) AS Total_Employees
156    FROM Employee
157    GROUP BY Branch_no
158    HAVING COUNT(Emp_Id) > 5;
159
```

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

Branch_no	Total_Employees

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

```
198    --   11
199 •  SELECT e.Emp_name, b.Branch_address
200    FROM Employee e
201    JOIN Branch b ON e.Branch_no = b.Branch_no
202    WHERE e.Position = 'Manager';
```

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

Emp_name	Branch_address
Ashly	Downtown Library, Kochi
George	Central Library, Bengaluru

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

```
204     -- 12
205 •   SELECT c.Customer_name
206     FROM Customer c
207     JOIN IssueStatus i ON c.Customer_Id = i.Issued_cust
208     JOIN Books b ON i.Isbn_book = b.ISBN
209     WHERE b.Rental_Price > 25;
```

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

Customer_name

```
205 •   SELECT c.Customer_name
206     FROM Customer c
207     JOIN IssueStatus i ON c.Customer_Id = i.Issued_cust
208     JOIN Books b ON i.Isbn_book = b.ISBN
209     WHERE b.Rental_Price > 25;
210 •   SELECT * FROM Books WHERE Rental_Price > 25;
```

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

ISBN	Book_title	Category	Rental_Price	Status	Author	Publisher
NULL	NULL	NULL	NULL	NULL	NULL	NULL