Library Management System

Iam 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.

```sql
create database library;
use library;
create table branch (
branch_no int primary key,
manager_id int,
branch_address varchar(255),
contact_no varchar(20) );


create table employee (
emp_id int primary key,
emp_name varchar(100),
position varchar(100),
salry decimal(10,2),
branch_no int,
foreign key (branch_no) references branch(branch_no)
);

create table issuestatus (
issue_id int primary key,
issued_cust_id int,
issued_book_name varchar(255),
isuue_date date,
Isbn_book int,
foreign key(issued_cust_id) references customer(customer_id),
foreign key(isbn_book) references books(isbn)
);


create table returnstatus(
retunrn_id int primary key,
return_cust int,
return_book_name varchar(255),
return_date date,
isbn_book2 int,
foreign key(return_cust)references customer(customer_id),
foreign key (isbn_book2) references books(isbn)
);
```

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

```
42 •  select book_title,category,rental_price
43    from books
44    where status='YES';
```

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

book_title	category	rental_price

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

```
46 •  select emp_name,salry
47    from employee
48    order by salry desc;
```

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

emp_name	salry

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

```
50 •  select books.book_title,customer.customer_name
51    from issuestatus
52    join books on issuestatus.isbn_book=books.isbn
53    join customer on issuestatus.issued_cust_id=customer.customer_id;
54
```

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

book_title	customer_name

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

```
55 •  select category, count(*) as total_books
56    from books
57    group by category;
```

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

category	total_books

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

```
59 •  select emp_name, position
60    from employee
61    where salry >50000;
```

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

emp_name	position

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

```
64 •  select customer_name
65    from customer
66    where reg_date < '2022-01-01'
67    and customer_id not in (select issued_cust_id from issuestatus);
```

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

customer_name

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

```
70 •  select branch_no , count(*) as total_employees
71    from employee
72    group by branch_no;
```

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

branch_no	total_employees

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

```
74 •  SELECT Customer.Customer_name
75    FROM IssueStatus
76    JOIN Customer ON IssueStatus.Issued_cust_id = Customer.Customer_Id
77    WHERE isuue_date BETWEEN '2023-06-01' AND '2023-06-30';
```

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

Customer_name

9. Retrieve book_title from book table containing history.

```
79 •  select book_title
80    from books
81    where book_title like '%history%';
82
```

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

```
83 •  SELECT Branch_no, COUNT(*) AS Total_Employees
84    FROM Employee
85    GROUP BY Branch_no
86    HAVING COUNT(*) > 5;
87
```

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.

```
88 •  SELECT Emp_name, Branch.Branch_address
89    FROM Employee
90    JOIN Branch ON Employee.Emp_Id = Branch.Manager_Id;
91
```

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

Emp_name	Branch_address

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

```
92 •  SELECT DISTINCT Customer.Customer_name
93    FROM IssueStatus
94    JOIN Books ON IssueStatus.Isbn_book = Books.ISBN
95    JOIN Customer ON IssueStatus.Issued_cust_id = Customer.Customer_Id
96    WHERE Books.Rental_Price > 25;
97
```

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

Customer_name