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

```
1 •  create database library;
2 •  use library;
```

```
55 •   create table Branch(Branch_no int primary key, Manager_Id  int, Branch_address  varchar(20), Contact_no varchar(12));
56
57 •   create table Employee(Emp_Id int PRIMARY KEY, Emp_name  varchar(20), Position  varchar(15), Salary decimal(5,3), Branch_no int,
58     FOREIGN KEY (Branch_no) REFERENCES Branch(Branch_no));
59
60 •   create table Books(ISBN int PRIMARY KEY, Book_title  varchar(20), Category varchar(10), Rental_Price  decimal(5,3),
61     Statu varchar(5), Author varchar(15), Publisher varchar(15), check(Statu in ('Yes', 'No')));
62
63 •   create table Customer(Customer_Id int PRIMARY KEY, Customer_name  varchar(10), Customer_address  varchar(15), Reg_date date);
64
65 •   create table IssueStatus(Issue_Id int PRIMARY KEY, Issued_cust int, Issued_book_name varchar(15), Issue_date date, Isbn_book int,
66     FOREIGN KEY (Issued_cust) REFERENCES Customer(Customer_Id), FOREIGN KEY(Isbn_book) REFERENCES Books(ISBN));
67
68 •   create table ReturnStatus(Return_Id int PRIMARY KEY, Return_cust  varchar(15), Return_book_name varchar(15), Return_date  date,
69     Isbn_book2 int, FOREIGN KEY(Isbn_book2) REFERENCES Books(ISBN));
```

Output

Action Output

#	Time	Action	Message
1	13:31:10	create table Branch(Branch_no int primary key, Manager_Id int, Branch_address varchar(20), ...	0 row(s) affected
2	13:31:11	create table Employee(Emp_Id int PRIMARY KEY, Emp_name varchar(20), Position varchar(1...	0 row(s) affected
3	13:31:11	create table Books(ISBN int PRIMARY KEY, Book_title varchar(20), Category varchar(10), Ren...	0 row(s) affected
4	13:31:11	create table Customer(Customer_Id int PRIMARY KEY, Customer_name varchar(10), Customer...	0 row(s) affected
5	13:31:12	create table IssueStatus(Issue_Id int PRIMARY KEY, Issued_cust int, Issued_book_name varc...	0 row(s) affected
6	13:31:12	create table ReturnStatus(Return_Id int PRIMARY KEY, Return_cust varchar(15), Return_boo...	0 row(s) affected

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

```
71 •   desc Branch;
```

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

Field	Type	Null	Key	Default	Extra
Branch_no	int	NO	PRI	NULL	
Manager_Id	int	YES		NULL	
Branch_address	varchar(20)	YES		NULL	
Contact_no	varchar(12)	YES		NULL	

```
72 •  desc Employee;
```

Result Grid | Filter Rows: | Export: | Wrap

Field	Type	Null	Key	Default	Extra
Emp_Id	int	NO	PRI	NULL	
Emp_name	varchar(20)	YES		NULL	
Position	varchar(15)	YES		NULL	
Salary	decimal(5,3)	YES		NULL	
Branch_no	int	YES	MUL	NULL	

```
73 •  desc Books;
```

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

Field	Type	Null	Key	Default	Extra
ISBN	int	NO	PRI	NULL	
Book_title	varchar(20)	YES		NULL	
Category	varchar(10)	YES		NULL	
Rental_Price	decimal(5,3)	YES		NULL	
Statu	varchar(5)	YES		NULL	
Author	varchar(15)	YES		NULL	
Publisher	varchar(15)	YES		NULL	

```
74 •  desc Customer;
```

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

Field	Type	Null	Key	Default	Extra
Customer_Id	int	NO	PRI	NULL	
Customer_name	varchar(10)	YES		NULL	
Customer_address	varchar(15)	YES		NULL	
Reg_date	date	YES		NULL	

```
75 •  desc IssueStatus;
```

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

Field	Type	Null	Key	Default	Extra
Issue_Id	int	NO	PRI	NULL	
Issued_cust	int	YES	MUL	NULL	
Issued_book_name	varchar(15)	YES		NULL	
Issue_date	date	YES		NULL	
Isbn_book	int	YES	MUL	NULL	

```
76 •  desc ReturnStatus;
```

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

Field	Type	Null	Key	Default	Extra
Return_Id	int	NO	PRI	NULL	
Return_cust	varchar(15)	YES		NULL	
Return_book_name	varchar(15)	YES		NULL	
Return_date	date	YES		NULL	
Isbn_book2	int	YES	MUL	NULL	

INSERTING VALUES INTO TABLES

Table:Bank

```
78 •  insert into Branch values(100,3,'Ramapuram','9447332925'),(200,5,'Pala','9447332035'),(500,7,'Kottayam','9458332925'),
79    (600,9,'Kollam','8447332035'),(700,11,'Trivandrum','7647332925'),
80    (800,15,'Kochi','6547332035');
81 •  select * from Branch;
```

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

Branch_no	Manager_Id	Branch_address	Contact_no
100	3	Ramapuram	9447332925
200	5	Pala	9447332035
500	7	Kottayam	9458332925
600	9	Kollam	8447332035
700	11	Trivandrum	7647332925
800	15	Kochi	6547332035
NULL	NULL	NULL	NULL

Table:Employee

```
83 • insert into Employee values(3,'Manu','Manager',70000,100),(5,'Mohan','Manager',60000,200),(7,'Mahesh','Manager',40000,500),
84   (9,'Meera','Manager',50000,600),(11,'Makiry','Manager',40000,700),(15,'Manoj','Manager',60000,800),
85   (133,'Deepu','Cashier',20000,100),(567,'Jobin','Helper',10000,200),(780,'Babu','ASM',40000,500),
86   (899,'Mariyaa','Helper',50000,600),(1115,'Mebin','Analyst',60000,700),(1589,'Mano','Analyst',60000,800);
87 • insert into Employee values(303,'Aby','Caller',5000,100),(505,'Raj','Helper',10000,100),(707,'Keertha','ASM',40000,100),
88   (909,'neetha','Helper',25000,100),(1541,'Malki','Analyst',40000,100),(1597,'Ziby','HR',30000,800);
89 • select * from Employee;
```

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

Emp_Id	Emp_name	Position	Salary	Branch_no
3	Manu	Manager	70000.00	100
5	Mohan	Manager	60000.00	200
7	Mahesh	Manager	40000.00	500
9	Meera	Manager	50000.00	600
11	Makiry	Manager	40000.00	700
15	Manoj	Manager	60000.00	800
133	Deepu	Cashier	20000.00	100
303	Aby	Caller	5000.00	100
505	Raj	Helper	10000.00	100
567	Jobin	Helper	10000.00	200
707	Keertha	ASM	40000.00	100

mployee 13 ×

Table: Books

```
90 • insert into Books values(854,'KGF','Crime',50,'Yes','Arun','DSP'),(8541,'Life','Thriller',10,'No','Abdu','SFD'),
91   (555,'Nun','Horror',60,'Yes','Arun','DSP'),(84,'Quuen','Crime',25,'Yes','Arun','DSP'),(8545,'King','Crime',5,'No','Akbar','SFD'),
92   (666,'Ghost','Horror',10,'Yes','Amal','DSP'),(8,'Nothing','Romance',15,'Yes','Pinky','DSP');
93 • select * from Books;
```

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

ISBN	Book_title	Category	Rental_Price	Statu	Author	Publisher
8	Nothing	Romance	15.000	Yes	Pinky	DSP
84	Quuen	Crime	25.000	Yes	Arun	DSP
555	Nun	Horror	60.000	Yes	Arun	DSP
666	Ghost	Horror	10.000	Yes	Amal	DSP
854	KGF	Crime	50.000	Yes	Arun	DSP
8541	Life	Thriller	10.000	No	Abdu	SFD
8545	King	Crime	5.000	No	Akbar	SFD
NULL	NULL	NULL	NULL	NULL	NULL	NULL

TABLE: CUSTOMER

```
96 • insert into Customer values(564,'Leo','Mannaparambil','2020-01-01'),(5641,'Yaswanth','Mundaplackal','2022-05-01'),
97   (664,'Rony','Koithara','2023-01-08'),(7641,'Rincy','kaitharan','2009-05-01'),(594,'Swetha','Delhi','2024-01-01'),
98   (8794,'Vishnu','Mundaplackal','2009-05-01');
99 • select * from Customer;
```

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

Customer_Id	Customer_name	Customer_address	Reg_date
564	Leo	Mannaparambil	2020-01-01
594	Swetha	Delhi	2024-01-01
664	Rony	Koithara	2023-01-08
5641	Yaswanth	Mundaplackal	2022-05-01
7641	Rincy	kaitharan	2009-05-01
8794	Vishnu	Mundaplackal	2009-05-01
NULL	NULL	NULL	NULL

TABLE :ISSUESTAUS

```
insert into IssueStatus values(632,564,'KGF','2024-05-01',854),(642,5641,'Ghost','2023-05-01',666),(652,564,'Nothing','2024-01-01',8),
(532,664,'KGF','2023-12-12',854),(932,664,'Ghost','2024-05-01',666),(132,664,'Nothing','2024-3-01',8),(332,594,'Nun','2024-02-01',555);
select * from IssueStatus;
```

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

Issue_Id	Issued_cust	Issued_book_name	Issue_date	Isbn_book
132	664	Nothing	2024-03-01	8
332	594	Nun	2024-02-01	555
532	664	KGF	2023-12-12	854
632	564	KGF	2024-05-01	854
642	5641	Ghost	2023-05-01	666
652	564	Nothing	2024-01-01	8
932	664	Ghost	2024-05-01	666
NULL	NULL	NULL	NULL	NULL

TABLE: RETURNSTATUS

```
insert into ReturnStatus values(7412,'Leo','KGF','2024-06-06',854),(7415,'Yaswanth','Ghost','2024-05-01',666),
(7012,'Rony','KGF','2024-06-06',854),(7815,'Leo','Nothing','2024-05-01',8);
select * from ReturnStatus;
```

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

Return_Id	Return_cust	Return_book_name	Return_date	Isbn_book2
7012	Rony	KGF	2024-06-06	854
7412	Leo	KGF	2024-06-06	854
7415	Yaswanth	Ghost	2024-05-01	666
7815	Leo	Nothing	2024-05-01	8
NULL	NULL	NULL	NULL	NULL

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

```
select Book_title,Category,Rental_Price from Books where Statu='Yes';
```

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

Book_title	Category	Rental_Price
Nothing	Romance	15.000
Quuen	Crime	25.000
Nun	Horror	60.000
Ghost	Horror	10.000
KGF	Crime	50.000

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

```
110 •   select Emp_name,Salary from Employee order by Salary desc;
```

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

Emp_name	Salary
Manu	70000.00
Mohan	60000.00
Manoj	60000.00
Mebin	60000.00
Mano	60000.00
Meera	50000.00
Mariyaa	50000.00
Mahesh	40000.00
Makiry	40000.00
Keertha	40000.00

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

```
112 •   select b.Book_title,c.Customer_name from Books b  inner join IssueStatus i on
113     b.ISBN=i.Isbn_book inner join Customer c on
114     i.Issued_cust= c.Customer_Id;
```

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

Book_title	Customer_name
KGF	Leo
Nothing	Leo
Nun	Swetha
Nothing	Rony
KGF	Rony
Ghost	Rony
Ghost	Yaswanth

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

```
116 •   select Category,count(ISBN) as count from Books group by Category;
```

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

Category	count
Romance	1
Crime	3
Horror	2
Thriller	1

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

```
118 •   select Emp_name,Position from Employee where Salary>50000;
```

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

Emp_name	Position
Manu	Manager
Mohan	Manager
Manoj	Manager
Mebin	Analyst
Mano	Analyst

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

```
120 •   select Customer_name from Customer where Reg_Date < '2022-01-01'
121     and Customer_Id not in(Select Issued_cust from IssueStatus);
```

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

Customer_name
Rincy
Vishnu

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

```
123 •   select Branch_no, count(Emp_Id) as Emp_Count from Employee group by Branch_no;
```

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

Branch_no	Emp_Count
100	7
200	2
500	2
600	2
700	2
800	3

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

```
128 •  SELECT Customer_name FROM IssueStatus join Customer on Issued_cust = Customer_Id
129    where month(Issue_date)=6 and year(Issue_date)=2023;
```

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

Customer_name
Cyril
Maple

9. Retrieve book_title from book table containing history.

```
131 •  select Book_title from Books where Book_title like '%history%';
```

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

Book_title
History of KGF
Life History

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

```
133 •  select Branch_no, count(Emp_Id) as Emp_Count from Employee group by Branch_no having Emp_Count>5;
```

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

Branch_no	Emp_Count
100	7

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

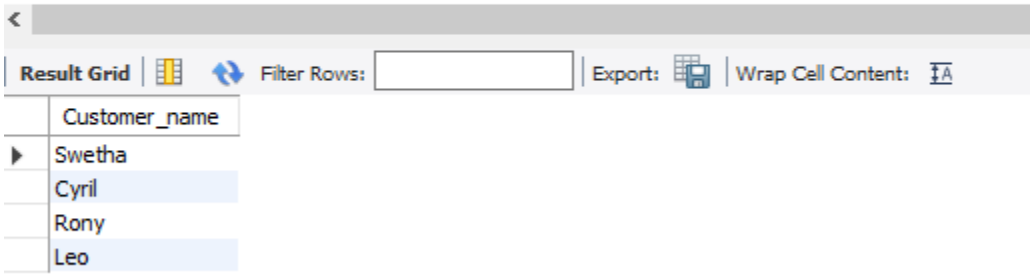
```
135 •  select b.Branch_address,e.Emp_name from Branch b left join Employee e on b.Branch_no=e.Branch_no
136     where Position='Manager';
```

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

Branch_address	Emp_name
Ramapuram	Manu
Pala	Mohan
Kottayam	Mahesh
Kollam	Meera
Trivandrum	Makiry
Kochi	Manoj

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

```
143 •   select c.Customer_name from
144     Books b join IssueStatus i on i.Isbn_book=b.ISBN
145     join Customer c on i.Issued_cust= c.Customer_Id
146     where b.Rental_Price>25;
```



Customer_name
Swetha
Cyril
Rony
Leo