# **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:

Attributes for the tables:

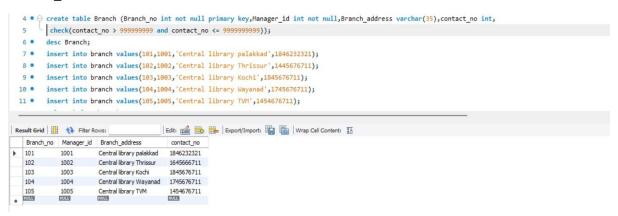
1. Branch

Branch\_no - Set as PRIMARY KEY

Manager\_Id

Branch\_address

Contact\_no



### 2. Employee

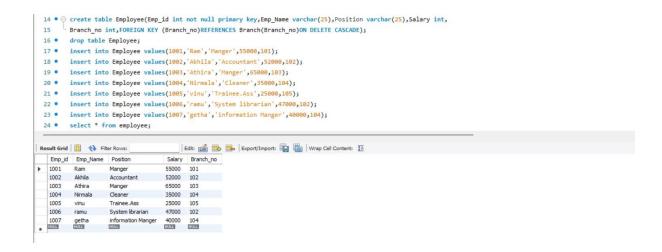
Emp\_Id - Set as PRIMARY KEY

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

```
25 • create table Book (ISBN int not null primary key,Book_title varchar(35),Category varchar(25),Rental_Price int,Status_b varchar(30),Author varchar(30),Publisher varchar(30));
 26 • insert into book values(1111, 'IT', 'Horror', 150, 'yes', 'Stephen King', 'Nation Press');
 27 • insert into book values(2222, 'Dune', 'Science fiction',100, 'yes', 'Frank Herbert', 'Penguin Books India');
  28 • insert into book values(2020, 'Jaws', 'Horror', 170, 'No', 'Peter Benchley', 'Nation Press');
 29 • insert into book values(4444, 'Macbeth', 'Classics', 250, 'yes', 'William Sakespeare', 'Macmillan');
  30 • insert into book values(5050, 'X', 'Detective', 50, 'yes', 'Stephen King', 'Harper Collins');
 31 • insert into book values(1511, 'Emma', 'Historical', 180, 'yes', 'Stephen King', 'Nation Press');
  32 • insert into book values(7171, 'Goldfinger', 'Detective',210, 'No', 'Stephen King', 'Macmillan');
 33 • insert into book values(1212, 'Mockingjay', 'Romance', 210, 'No', 'Stephen King', 'Simon And Schuster');
 34 • select * from book;
| Edit: 🔏 📸 📙 | Export/Import: 📳 👸 | Wrap Cell Content: 🏗
  ISBN Book_title Category Rental_Price Status_b Author
▶ 1111 IT
                                                                           Nation Pres
                                                                           Simon And Schuster
Nation Press
                               180 yes Stephen King
170 No Peter Benchley
   2020 Jaws
                     Horror
                                                                           Nation Press

        100
        yes
        Frank Herbert
        Penguin Books India

        250
        yes
        William Sakespeare
        Macmillan

        50
        yes
        Stephen King
        Harper Collins

   2222 Dune
                     Science fiction 100
   4444 Macbeth Classics
5050 X Detective
  7171 Goldfinger Detective 210
                                               No Stephen King
                                                                           Macmillan
```

# 4. Customer

Customer\_Id - Set as PRIMARY KEY

Customer\_name

Customer\_address

Reg\_date

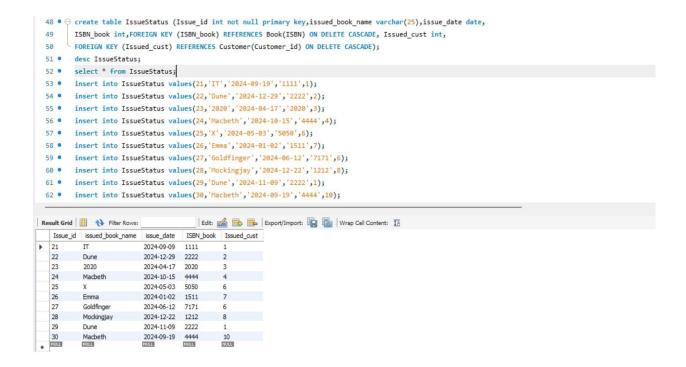
```
35 • create table Customer (Customer_id int not null primary key,Customer_Name varchar(15),Customer_address varchar(25),Reg_Date date);
 37 • insert into Customer values(1, 'Manu', 'NH 66 main st', '2024-06-12');
  38 • insert into Customer values(2, 'mani', 'NH 666 st', '2023-09-02');
 39 • insert into Customer values(3, 'Anu', 'NH 606 main st', '2024-08-21');
  40 • insert into Customer values(4, 'anju', 'NH 616 main st', '2024-11-13');
 41 • insert into Customer values(6, 'ravi', 'NH 67 main Road', '2024-12-10');
 42 • insert into Customer values(7, 'Rahul', 'NH 46 main st', '2024-09-09');
 43 • insert into Customer values(8, 'radha', 'NH 56 main st', '2024-01-09');
 44 • insert into Customer values(9, 'ganesh', 'NH 86 main st', '2024-12-10');
 45 • insert into Customer values(10, 'Abhi', 'NH 460 st', '2024-04-14');
 46 • select * from Customer;
Edit: 🕍 📆 Export/Import: 🏣 🃸 | Wrap Cell Content: 🔣
   Customer_id Customer_Name Customer_address Reg_Date
                           NH 66 main st
              Manu
                     NH 666 st
             mani
                                         2023-09-02
                           NH 606 main st
          anju NH 616 main st
                                         2024-11-13
             Rahul NH 46 main st
                                         2024-09-09
             ganesh NH 86 main st 2024-12-10
                                         2024-04-14
```

#### 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

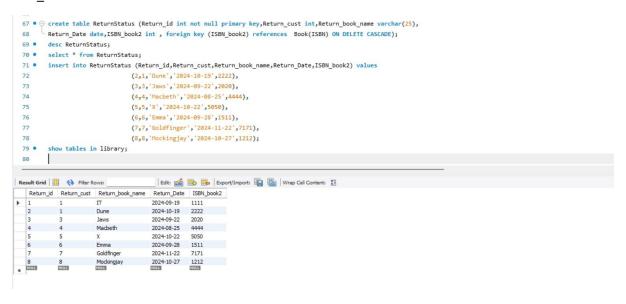
Return\_Id - Set as PRIMARY KEY

Return\_cust

Return\_book\_name

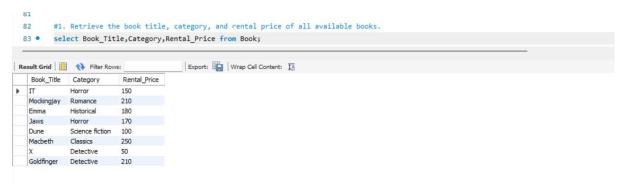
Return\_date

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:

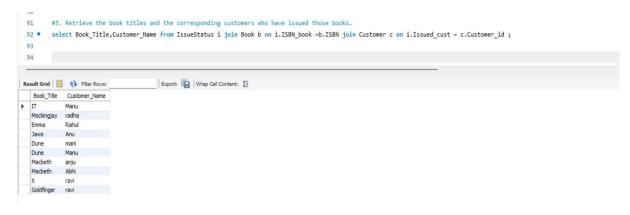
Retrieve the book title, category, and rental price of all available books.



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



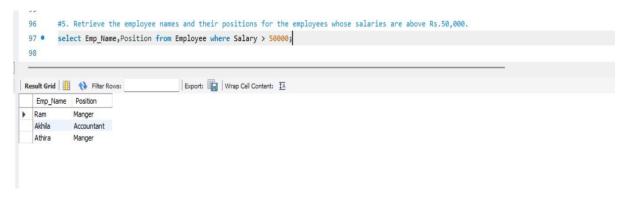
3. Retrieve the book titles and the corresponding customers who have issued those books.



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



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



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

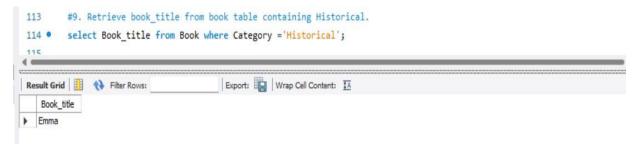
7. Display the branch numbers and the total count of employees in each branch.



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



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



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

