SQL-COMPREHENSIVE ASSESMENT

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:

- 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

```
1 • CREATE DATABASE Library;
2 • USE Library;
3
4 • ○ CREATE TABLE Branch(
5 Branch_no int primary key not null,
6 Manager_id int,
7 Branch_Address varchar(180),
8 Contact_no varchar(15)
9 );
10 • INSERT INTO Branch VALUES
11 (1, 101, '123 Main St', '555-1234'),
12 (2, 102, '456 Oak St', '555-5678');
13
14 • select * from Branch;
15

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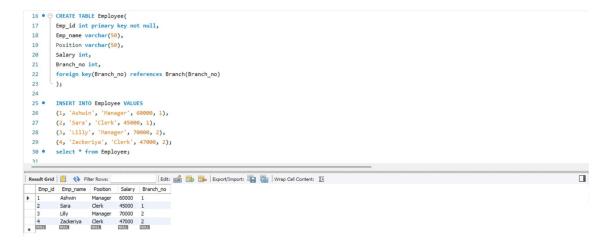
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2. Employee

- 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

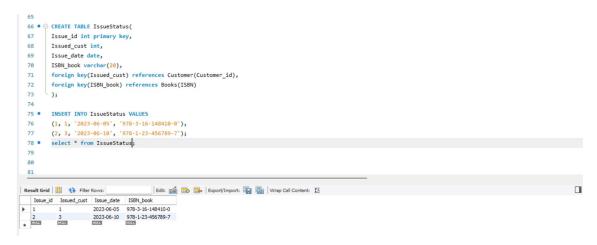
```
33 ● ⊖ CREATE TABLE Books(
        ISBN varchar(20) primary key,
          Book_title varchar(100),
          Category varchar(50),
          Rental_price float,
          Status varchar(3) CHECK (Status IN ('yes', 'no')),
          Author varchar(50),
  40
          Publisher varchar(50)
  41
        ('978-3-16-148410-0', 'Book A', 'Fiction', 20.00, 'yes', 'Author A', 'Publisher A'),
('978-1-23-456789-7', 'Book B', 'History', 15.00, 'no', 'Author B', 'Publisher B'),
('978-0-12-345678-9', 'Book C', 'Science', 25.00, 'yes', 'Author C', 'Publisher C');
  45
  47 • select * from Books;
| Edit: 🕍 🐘 | Export/Import: 🏭 🖔 | Wrap Cell Content: 🏗
978-3-16-148410-0 Book A
```

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. 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.



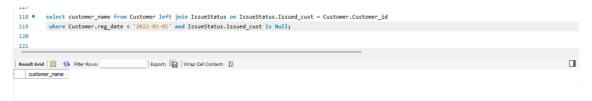
4. Display the total count of books in each category.



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



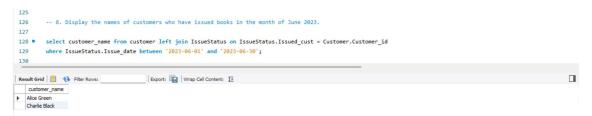
6. List the customer names who registered before 2022-01-01 and have not issued any books yet.



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



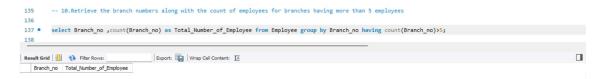
8. Display the names of customers who have issued books in the month of June 2023.



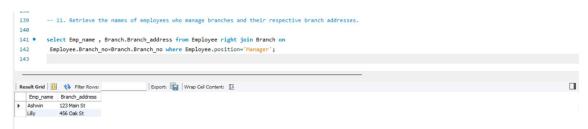
9. Retrieve book title from book table containing history.



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



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



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

