## Library Management System

Create a database named library and following TABLES in the database:

```
1. Branch
2. Employee
3. Books
4. Customer
5. IssueStatus
6. ReturnStatus
      -- Create a Database called 'Library'
    CREATE DATABASE library;
   USE library;
     -- create table "Branch"
   CREATE TABLE Branch

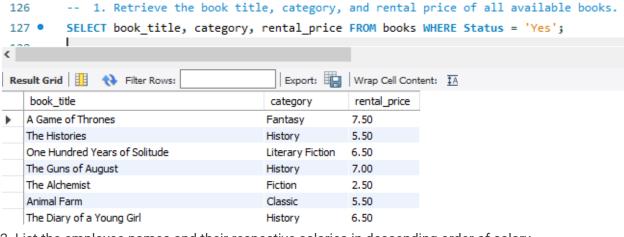
⊖ (Branch_no VARCHAR(10) PRIMARY KEY,
     Manager_id VARCHAR(10),
     Branch_address VARCHAR(30),
    Contact no VARCHAR(15));
     -- Create table "Employee"
   CREATE TABLE Employee
    Emp_name VARCHAR(30),
     Position VARCHAR(30),
     Salary DECIMAL(10,2),
      Branch_no VARCHAR(10), FOREIGN KEY (Branch_no) REFERENCES Branch(Branch_no));
            CREATE TABLE Books
          Book_title VARCHAR(100),
            Category VARCHAR(30),
            Rental Price DECIMAL(10,2),
            Status ENUM('Yes','No'),
            Author VARCHAR(30),
           Publisher VARCHAR(30));
             -- Create table "Customer"
            CREATE TABLE Customer
         Customer name VARCHAR(30),
            Customer_address VARCHAR(30),
           Reg date DATE);
```

```
INSERT INTO branch VALUES
  54 •
          ('B001', 'M101', '123 Main St', '+919099988676'),
  55
          ('B002', 'M102', '456 Elm St', '+919099988677'),
  56
          ('B003', 'M103', '789 Oak St', '+919099988678'),
  57
          ('B004', 'M104', '567 Pine St', '+919099988679'),
  58
          ('B005', 'M105', '890 Maple St', '+919099988680');
  59
          SELECT * FROM branch;
  60 •
Edit: 🚄 🖶 🖶 Export/Import: 📳
    Branch_no
              Manager_id
                          Branch_address
                                        Contact_no
   B001
                                        +919099988676
              M101
                         123 Main St
   B002
              M102
                         456 Elm St
                                        +919099988677
   B003
              M103
                         789 Oak St
                                        +919099988678
   B004
              M<sub>104</sub>
                         567 Pine St
                                        +919099988679
   B005
              M105
                         890 Maple St
                                        +919099988680
             NULL
                         NULL
                                       NULL
   NULL
 62 •
         INSERT INTO employee VALUES
         ('E101', 'John Doe', 'Manager', 60000.00, 'B001'),
 63
         ('E102', 'Jane Smith', 'Clerk', 45000.00, 'B002'),
 64
 65
         ('E103', 'Mike Johnson', 'Librarian', 55000.00, 'B003'),
         ('E104', 'Emily Davis', 'Assistant', 40000.00, 'B004'),
 66
         ('E105', 'Sarah Brown', 'Assistant', 42000.00, 'B005'),
 67
         ('E106', 'Michelle Ramirez', 'Assistant', 43000.00, 'B004'),
 68
                                            Edit: 🚄 🖶 Export/Import: 🗓 👸 Wrap
Emp_id
           Emp_name
                           Position
                                    Salary
                                              Branch_no
  E101
          John Doe
                                    60000.00
                                             B001
                          Manager
  E102
          Jane Smith
                          Clerk
                                    45000.00
                                             B002
  E103
          Mike Johnson
                                    55000.00
                                             B003
                          Librarian
  E104
          Emily Davis
                          Assistant
                                    40000.00
                                             B004
  E105
          Sarah Brown
                          Assistant
                                    42000.00
                                             B005
  E106
          Michelle Ramirez
                                    43000.00
                                             B004
                          Assistant
  E107
          Michael Thompson
                                    62000.00
                                             B002
                          Manager
```

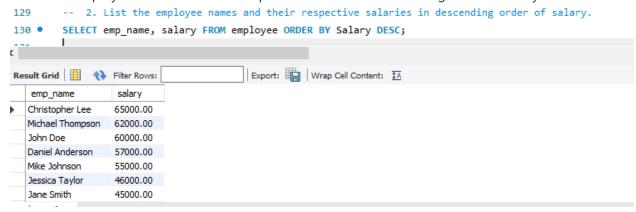
```
INSERT INTO customer VALUES
76 •
           ('C101', 'Alice Johnson', '123 Main St', '2021-05-15'),
77
78
           ('C102', 'Bob Smith', '456 Elm St', '2021-06-20'),
           ('C103', 'Carol Davis', '789 Oak St', '2021-07-10'),
79
           ('C104', 'Dave Wilson', '567 Pine St', '2021-08-05'),
80
           ('C105', 'Eve Brown', '890 Maple St', '2021-09-25'),
81
           ('C106', 'Frank Thomas', '234 Cedar St', '2021-10-15'),
82
                                                        Edit: 🚄 🖶 Export/Import: 识 📸 🛚 W
Result Grid
                  Filter Rows:
   Customer_Id
                   Customer_name
                                      Customer_address
  C101
                  Alice Johnson
                                     123 Main St
                                                           2021-05-15
  C102
                  Bob Smith
                                     456 Elm St
                                                           2021-06-20
   C103
                  Carol Davis
                                     789 Oak St
                                                           2021-07-10
  C104
                  Dave Wilson
                                     567 Pine St
                                                           2021-08-05
   C105
                  Eve Brown
                                     890 Maple St
                                                           2021-09-25
  C106
                  Frank Thomas
                                     234 Cedar St
                                                           2021-10-15
  C107
                                     345 Walnut St
                  Grace Taylor
                                                           2021-11-20
       INSERT INTO books VALUES
90
       ('978-0-553-29698-2', 'The Catcher in the Rye', 'Classic', 7.00, 'yes', 'J.D. Salinger', 'Little, Brown and Company')
       ('978-0-330-25864-8', 'Animal Farm', 'Classic', 5.50, 'yes', 'George Orwell', 'Penguin Books'),
91
       ('978-0-14-118776-1', 'One Hundred Years of Solitude', 'Literary Fiction', 6.50, 'yes', 'Gabriel Garcia Marquez', 'Pe
       ('978-0-525-47535-5', 'The Great Gatsby', 'Classic', 8.00, 'yes', 'F. Scott Fitzgerald', 'Scribner'),
94
       ('978-0-141-44171-6', 'Jane Eyre', 'Classic', 4.00, 'yes', 'Charlotte Bronte', 'Penguin Classics'),
       ('978-0-307-37840-1', 'The Alchemist', 'Fiction', 2.50, 'yes', 'Paulo Coelho', 'HarperOne'),
95
Result Grid 🔢 🙌 Filter Rows:
                                       | Edit: 🚣 🖶 | Export/Import: 🏣 🚡 | Wrap Cell Content: 🖽
                                                                                                                          П
  ISBN
                                              Category
                                                           Rental Price Status
                                                                            Author
                                                                                               Publisher
                 A Game of Thrones
                                                                            George R.R. Martin
 978-0-09-957807-9
                                                           7.50
                                              Fantasy
                                                                      Yes
                                                                                              Bantam
 978-0-14-044930-3 The Histories
                                              History
                                                          5.50
                                                                            Herodotus
                                                                                              Penguin Classics
                                                                     Yes
 978-0-14-118776-1 One Hundred Years of Solitude
                                              Literary Fiction
                                                          6.50
                                                                     Yes
                                                                            Gabriel Garcia Marguez
                                                                                              Penguin Books
 978-0-141-44171-6 Jane Eyre
                                              Classic
                                                          4.00
                                                                     Yes
                                                                            Charlotte Bronte
                                                                                              Penguin Classics
 978-0-19-280551-1 The Guns of August
                                              History
                                                           7.00
                                                                     Yes
                                                                            Barbara W. Tuchman
                                                                                              Oxford University Press
 978-0-307-37840-1 The Alchemist
                                                          2.50
                                                                     Yes
                                                                            Paulo Coelho
                                                                                              HarperOne
 978-0-307-58837-1 Sapiens: A Brief History of Humankind
                                                                            Yuval Noah Harari
                                                                                              Harper Perennial
                                              History
                                                          8.00
                                                                     Yes
         INSERT INTO IssueStatus VALUES
 110 •
         ('IS101', 'C101', 'The Catcher in the Rye', '2023-06-01', '978-0-553-29698-2'),
         ('IS102', 'C102', 'The Da Vinci Code', '2023-05-02', '978-0-7432-4722-4'),
112
         ('IS103', 'C103', '1491: New Revelations of the Americas Before Columbus', '2023-05-03', '978-0-7432-7357-1'),
113
114
          ('IS104', 'C104', 'Sapiens: A Brief History of Humankind', '2023-06-04', '978-0-307-58837-1'),
          ('IS105', 'C105', 'The Diary of a Young Girl', '2023-05-05', '978-0-375-41398-8');
115
         SELECT * FROM issuestatus;
<
Edit: 💪 🖶 🖶 Export/Import: 识 📸 Wrap Cell Content: 🏗
    Issue_Id Issued_cust_id
                         Issued_book_name
                                                              IS101
                         The Catcher in the Rve
                                                              2023-06-01
                                                                         978-0-553-29698-2
   IS102
            C102
                         The Da Vinci Code
                                                              2023-05-02
                                                                         978-0-7432-4722-4
   IS103
            C103
                         1491: New Revelations of the Americas Before ...
                                                              2023-05-03
                                                                         978-0-7432-7357-1
   IS104
            C104
                         Sapiens: A Brief History of Humankind
                                                              2023-06-04
                                                                         978-0-307-58837-1
   IS105
            C105
                         The Diary of a Young Girl
                                                              2023-05-05
                                                                         978-0-375-41398-8
   NULL
```

```
INSERT INTO ReturnStatus VALUES
118 •
         ('RS101', 'C101', 'The Catcher in the Rye', '2023-06-06', '978-0-553-29698-2'),
119
         ('RS102', 'C102', 'The Da Vinci Code', '2023-06-07', '978-0-7432-4722-4'),
120
         ('RS103', 'C105', 'The Diary of a Young Girl', '2023-06-08', '978-0-375-41398-8'),
121
         ('RS104', 'C108', 'The Histories', '2023-06-09', '978-0-14-044930-3'),
122
123
         ('RS105', 'C110', 'A Game of Thrones', '2023-06-10', '978-0-09-957807-9');
         SELECT * FROM returnstatus;
124 •
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                                                        Export/Import: I Wrap Cell Content: IA
                                                         isbn_book2
   Return_id Return_cust
                        Return_book_name
                                             Return_date
                                                        978-0-553-29698-2
  RS101
            C101
                        The Catcher in the Rye
                                            2023-06-06
  RS102
            C102
                        The Da Vinci Code
                                            2023-06-07
                                                        978-0-7432-4722-4
  RS103
            C105
                        The Diary of a Young Girl
                                            2023-06-08
                                                        978-0-375-41398-8
  RS104
            C108
                       The Histories
                                            2023-06-09
                                                        978-0-14-044930-3
  RS105
            C110
                        A Game of Thrones
                                                        978-0-09-957807-9
                                            2023-06-10
            NULL
                                            NULL
```

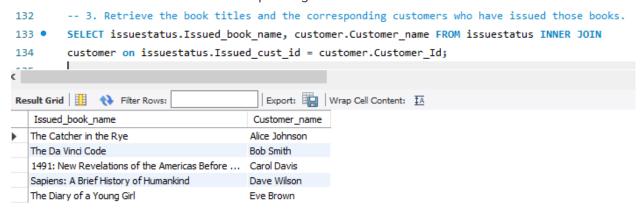
1. Retrieve the book title, category, and rental price of all available books.



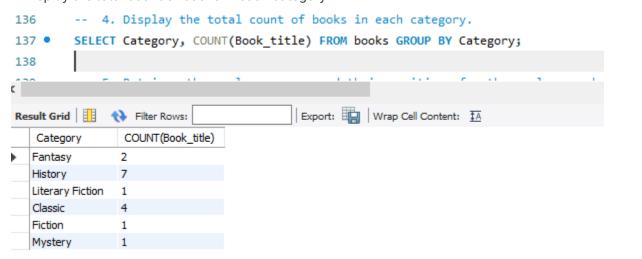
2. List the employee names and their respective salaries in descending order of salary.



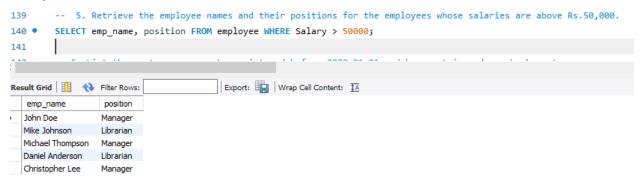
3. Retrieve the book titles and the corresponding customers who have issued those books.



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

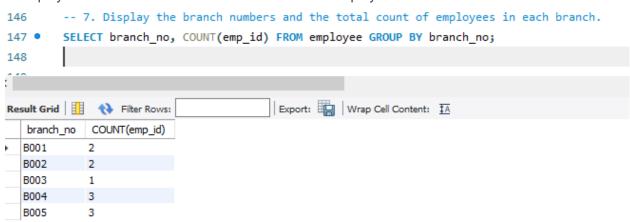


5. Retrieve the employee names and their positions for the employees whose salaries are above Rs.50,000.



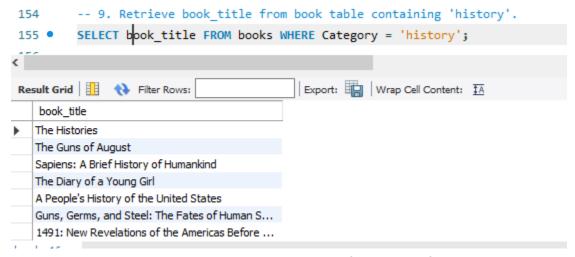
6. List the customer names who registered before 2022-01-01 and have not issued any books yet.

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



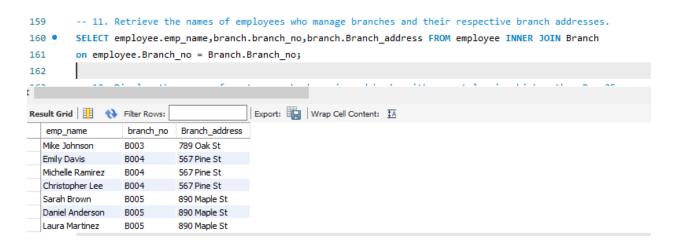
8. Display the names of customers who have issued books in the month of June 2023.

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 2 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. 7.

