SQL- Library Management System

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Date : 26-09-2024

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

\*/

*create database library;*

*use library;*

/\*

Create TABLE in the database:

**1. Branch**

\*/

*create table branch(*

*Branch\_no int auto\_increment PRIMARY KEY,*

*Manager\_Id int,*

*Branch\_address varchar(250),*

*Contact\_no char(10));*

*INSERT INTO branch (Branch\_no, Manager\_Id, Branch\_address, Contact\_no)*

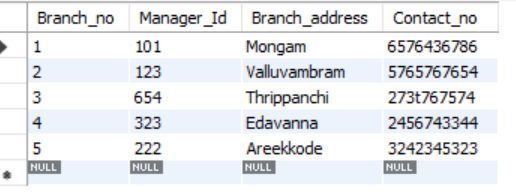
*VALUES (1,101,'Mongam','6576436786'),*

*(2,123,'Valluvambram','5765767654'),*

*(3,654,'Thrippanchi','273t767574'),*

*(4,323,'Edavanna','2456743344'),*

*(5,222,'Areekkode','3242345323');*



/\*

Create TABLE in the database:

**2. Employee**

\*/

*create table employee(*

*Emp\_Id int PRIMARY KEY auto\_increment,*

*Emp\_name varchar(50),*

*Position varchar(50),*

*Salary decimal(10,2),*

*Branch\_no int,*

*FOREIGN KEY(Branch\_no) references library.branch(Branch\_no)*

*);*

*INSERT INTO employee (Emp\_Id, Emp\_name, Position, Salary, Branch\_no)*

*VALUES (6,'Akib sadin','Manager',65000.00,1),*

*(7,'Lami p','Accountant',25000.00,3),*

*(8,'Minha','Security',10000.00,3),*

*(9,'Favas p','Accountant',20000.00,1),*

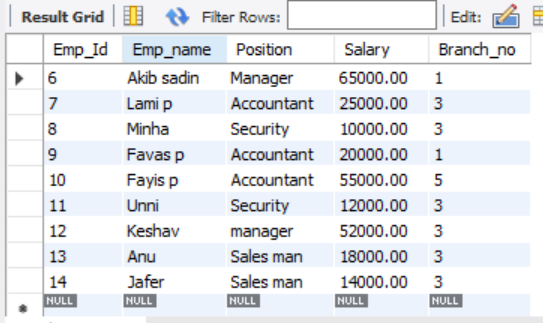
*(10,'Fayis p','Accountant',55000.00,5),*

*(11,'Unni','Security',12000.00,3),*

*(12,'Keshav','manager',52000.00,3),*

*(13,'Anu','Sales man',18000.00,3),*

*(14,'Jafer','Sales man',14000.00,3);*



/\*

Create TABLE in the database:

**3. Books**

\*/

*create table books(*

*ISBN int PRIMARY KEY auto\_increment,*

*Book\_title varchar(50),*

*Category varchar(20),*

*Rental\_Price decimal(5,2),*

*Status char(5),*

*Author varchar(50),*

*Publisher varchar(50)*

*);*

*INSERT INTO books (ISBN, Book\_title, Category, Rental\_Price, Status, Author, Publisher)*

*VALUES (1,'Making India Awesome','Categ1',25.00,'yes','Chetan Bhagat','fasil'),*

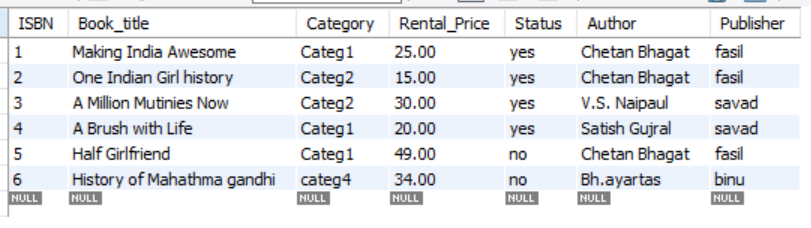
*(2,'One Indian Girl history','Categ2',15.00,'yes','Chetan Bhagat','fasil'),*

*(3,'A Million Mutinies Now','Categ2',30.00,'yes','V.S. Naipaul','savad'),*

*(4,'A Brush with Life','Categ1',20.00,'yes','Satish Gujral','savad'),*

*(5,'Half Girlfriend','Categ1',49.00,'no','Chetan Bhagat','fasil'),*

(6,'History of Mahathma gandhi','categ4',34.00,'no','Bh.ayartas','binu');



/\*

Create TABLE in the database:

**4. Customer**

\*/

*create table Customer(*

*Customer\_Id int PRIMARY KEY auto\_increment,*

*Customer\_name varchar(50),*

*Customer\_address varchar(200),*

*Reg\_date date*

*);*

*INSERT INTO customer (Customer\_Id, Customer\_name, Customer\_address, Reg\_date)*

*VALUES (1,'Jan maunu','calicut, kerala','2023-02-03'),*

*(2,'Abhi ashok','checnnai,thamilnadu','2023-02-03'),*

*(3,'Kasim mansoor','malappuram,kerala','2021-03-11'),*

*(4,'Keyath manu','kannur, kerala','2023-02-05'),*

*(5,'Minu ava','kochi kerala','2021-03-11');*



/\*

Create TABLE in the database:

5. IssueStatus

\*/

*create table IssueStatus(*

*Issue\_Id int PRIMARY KEY auto\_increment,*

*Issued\_cust\_id int,*

*Issued\_book\_name varchar(50),*

*Issue\_date date,*

*Isbn\_book int,*

*FOREIGN KEY(Issued\_cust\_id) references library.Customer(customer\_id),*

*FOREIGN KEY(Isbn\_book) references library.books(ISBN)*

*);*

*INSERT INTO issuestatus (Issue\_Id, Issued\_cust\_id, Issued\_book\_name, Issue\_date, Isbn\_book)*

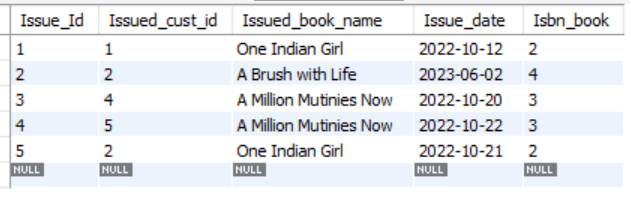
*VALUES (1,1,'One Indian Girl','2022-10-12',2),*

*(2,2,'A Brush with Life','2023-06-02',4),*

*(3,4,'A Million Mutinies Now','2022-10-20',3),*

*(4,5,'A Million Mutinies Now','2022-10-22',3),*

*(5,2,'One Indian Girl','2022-10-21',2);*



/\*

Create TABLE in the database:

**6. ReturnStatus**

\*/

*create table ReturnStatus(*

*Return\_Id int PRIMARY KEY auto\_increment,*

*Return\_cust varchar(50),*

*Return\_book\_name varchar(50),*

*Return\_date date,*

*Isbn\_book2 int,*

*FOREIGN KEY(Isbn\_book2) references library.books(ISBN)*

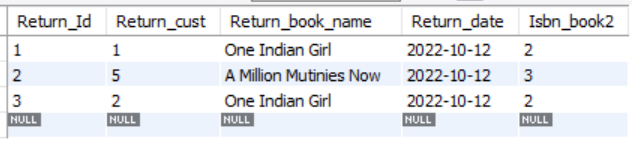
*);*

*INSERT INTO returnstatus (Return\_Id, Return\_cust, Return\_book\_name, Return\_date, Isbn\_book2)*

*VALUES (1,'1','One Indian Girl','2022-10-12',2),*

*(2,'5','A Million Mutinies Now','2022-10-12',3),*

*(3,'2','One Indian Girl','2022-10-12',2);*



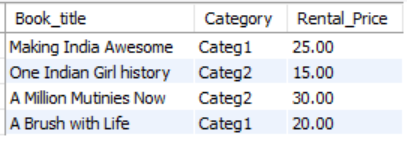
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1. Retrieve the book title, category, and rental price of all available books.

\*/

*select Book\_title,Category,Rental\_Price from library.books*

*where Status='yes';*



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

\*/

*select Emp\_name,Salary from library.employee*

*order by Salary desc;*



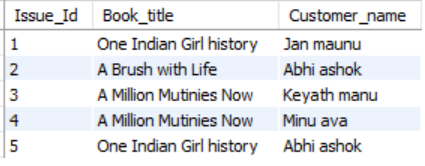
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3. Retrieve the book titles and the corresponding customers who have issued those books.

\*/

*select i.Issue\_Id,b.Book\_title,c.Customer\_name from library.issuestatus as i left join library.books as b on i.Isbn\_book=b.ISBN*

*left join library.customer as c on i.Issued\_cust\_id=c.Customer\_Id;*



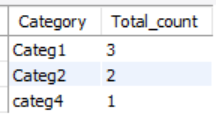
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4. Display the total count of books in each category.

\*/

*select Category,count(\*) as Total\_count from library.books*

*group by Category;*



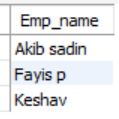
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5. Retrieve the employee names and their positions for the employees whose salaries are above Rs.50,000.

\*/

*select Emp\_name from library.employee*

*where Salary>50000;*



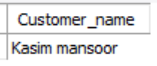
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6. List the customer names who registered before 2022-01-01 and have not issued any books yet.

\*/

*select Customer\_name from library.customer*

*where Reg\_date<date('2022-01-01') and Customer\_Id not in(select Issued\_cust\_id from library.issuestatus);*



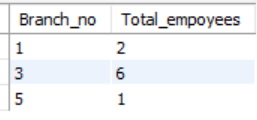
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7. Display the branch numbers and the total count of employees in each branch.

\*/

*select Branch\_no,count(Branch\_no) as Total\_empoyees from library.employee*

*group by Branch\_no;*



/\*

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

\*/

*select Customer\_name from library.customer*

*where Customer\_Id in (*

*select Issued\_cust\_id from library.issuestatus*

*where year(Issue\_date)=2023 and month(Issue\_date)=6);*



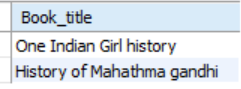
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9. Retrieve book\_title from book table containing history.

\*/

*select Book\_title from library.books*

*where Book\_title like '%history%';*



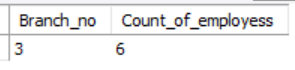
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10.Retrieve the branch numbers along with the count of employees for branches having more than 5 employees

\*/

*select Branch\_no,count(Branch\_no) as Count\_of\_employess from library.employee group by Branch\_no*

*having count(Branch\_no)>5;*

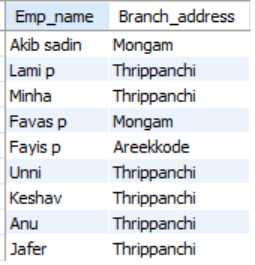


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11. Retrieve the names of employees who manage branches and their respective branch addresses.

\*/

*select e.Emp\_name,b.Branch\_address from library.employee as e left join library.branch as b on e.Branch\_no=b.Branch\_no;*



/\*

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

\*/

*select Customer\_name from library.customer where Customer\_Id in (*

*select Issued\_cust\_id from library.issuestatus where Isbn\_book in(*

*select ISBN from library.books where Rental\_Price>25));*

