**MYSQL PROJECT: Library Management System**

Topic : Library Management System

Created by hanan

iam 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

create database library;

create table branch(

branch\_no char(4) primary key,

manager\_id int,

branch\_address varchar(20),

contact\_no char(10));

insert into branch(branch\_no,manager\_id,branch\_address,contact\_no )values

('BR01','1','westbranch01','1234567890'),

('BR02','2','westbranch02', '1234567891'),

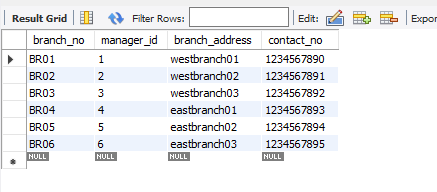
('BR03','3','westbranch03', '1234567892'),

('BR04','4','eastbranch01', '1234567893'),

('BR05','5', 'eastbranch02', '1234567894'),

('BR06','6', 'eastbranch03', '1234567895');

select\* from branch;



create table employee(emp\_id int primary key,emp\_name varchar(30) ,position varchar(20) ,salary decimal(7,2) ,

branch\_no char(4),foreign key(branch\_no)references branch(branch\_no));

insert into employee(emp\_id,emp\_name,position,salary,branch\_no)values

(1,'alice smith','ceo',65000.00,'BR01'),

(2,'jane doe','assistant',50000.00,'BR01'),

(3,'johannas burg','executive assistant',52000.00,'BR02'),

(4,'john williams','ceo',65000.00,'BR03'),

(5,'henry davis','manager',55000.00,'BR04'),

(6,'bob dylan','marketting head',54000.00,'BR03'),

(7,'jacob kuriyan','hr',57000.00,'BR05'),

(8,'ann mariya','ceo',65000.00,'BR06'),

(9,'anna george','manager',55000.00,'BR01'),

(10,'githaa anjali','marketting head',54000.00,'BR02'),

(11,'arumon','executive assistant',52000.00,'BR01'),

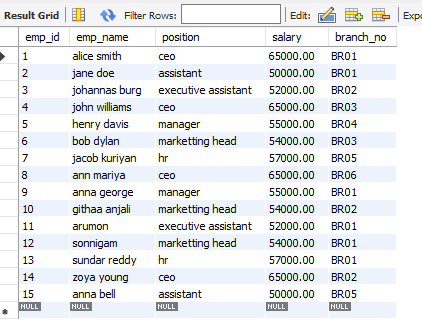
(12,'sonnigam','marketting head',54000.00,'BR01'),

(13,'sundar reddy','hr',57000.00,'BR01'),

(14,'zoya young','ceo',65000.00,'BR02'),

(15,'anna bell','assistant',50000.00,'BR05');

select\* from employee;



create table books(ISBN char(13) primary key,book\_title varchar(50)

,category varchar(20),rental\_prize int,status varchar(3),author varchar(20),

publisher varchar(30));

insert into books(ISBN,book\_title,category,rental\_prize,status,author,publisher)values

(9781594036152,'a rat is a pig is a dog is boy','classic',100,'yes','smith','encounter book'),

(9780060210982,'all the place to love','romantic',70,'no','patricia','harpercollins'),

(9781590784655,'an amish year','fiction',200,'150','richard','harpercollins christian'),

(9780689647696,'apples to oregon','genaral',20,'yes','deporah hopkinson','simon and schuster'),

(9781936959120,'buzz into action','general',30,'yes','alexander david','random house disney'),

(9780143432821,'the magic of the lost temple','fiction',25,'no','sudha murthy','penguin random house'),

(9789350195611,'junior leval books introduction to computer','computer',100,'yes','amit garg','readers zone'),

(9798894156255,'lucifer was innocent:the red pill','horrer',200,'no','tirth raj parsana','notion press'),

(9789359896779,'the haunted:series 1','fiction',150,'no','vipraj singh ranawat','blue rose'),

(9780857197689,'the psychology of money','genaral',75,'yes','morgon housel','jaicopublishing house'),

(9780143109464,'me before you','romantic',80,'yes','jojo moyes','penguin uk'),

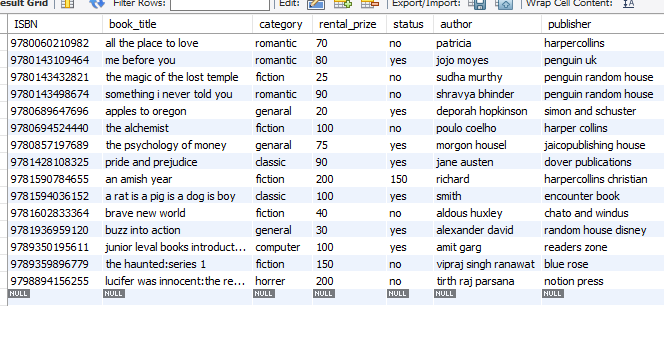
(9780143498674,'something i never told you','romantic',90,'no','shravya bhinder','penguin random house'),

(9781602833364,'brave new world','fiction',40,'no','aldous huxley','chato and windus'),

(9780694524440,'the alchemist','fiction',100,'no','poulo coelho','harper collins'),

(9781428108325,'pride and prejudice','classic',90,'yes','jane austen','dover publications');

select\* from books;



create table customer(cust\_id int primary key,cust\_name varchar(30),cust\_address varchar(30),reg\_date date);

insert into customer(cust\_id,cust\_name,cust\_address,reg\_date)values

(1,'aloshi kurian','123mainstreet','2023-11-04'),

(2,'alice smith','124mainstreet','2024-08-19'),

(3,'jane doe','125mainstreet','2020-07-14'),

(4,'bob dylan','123mainstreet','2023-04-04'),

(5,'jacob george','124mainstreet','2024-07-06'),

(6,'ann mariya','123mainstreet','2023-07-09'),

(7,'anna george','125mainstreet','2022-09-17'),

(8,'anabella','123mainstreet','2020-04-11'),

(9,'geetha beli','123mainstreet','2022-09-12'),

(10,'rose jack','125mainstreet','2021-08-05'),

(11,'james','125mainstreet','2022-09-12'),

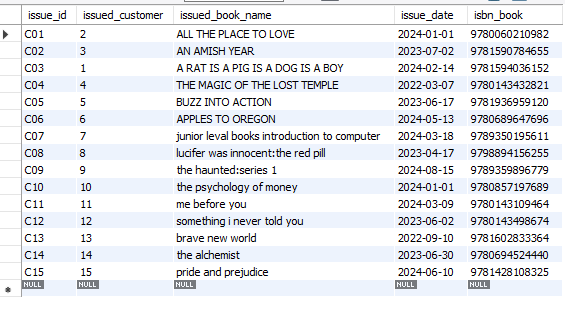
(12,'george','123mainstreet','2021-08-14'),

(13,'david','126mainstreet','2020-06-23'),

(14,'emil das','124mainstreet','2022-02-14'),

(15,'anjali','123mainstreet','2021-03-26');

select\* from customer;



create table issue\_status (issue\_id VARCHAR(10) primary key, issued\_customer int,

foreign key(issued\_customer)references customer(cust\_id),

issued\_book\_name varchar(50),issue\_date date,isbn\_book varchar(20),foreign key(isbn\_book)references books(ISBN));

insert into issue\_status(issue\_id,issued\_customer,issued\_book\_name,issue\_date,isbn\_book)values

('C01',2,'ALL THE PLACE TO LOVE','2024-01-01',9780060210982),

('C02',3,'AN AMISH YEAR','2023-07-02',9781590784655),

('C03',1,'A RAT IS A PIG IS A DOG IS A BOY','2024-02-14',9781594036152),

('C04',4,'THE MAGIC OF THE LOST TEMPLE','2022-03-07',9780143432821),

('C05',5,'BUZZ INTO ACTION','2023-06-17',9781936959120),

('C06',6,'APPLES TO OREGON','2024-05-13',9780689647696),

('C07',7,'junior leval books introduction to computer','2024-03-18',9789350195611),

('C08',8,'lucifer was innocent:the red pill','2023-04-17',9798894156255),

('C09',9,'the haunted:series 1','2024-08-15',9789359896779),

('C10',10,'the psychology of money','2024-01-01',9780857197689),

('C11',11,'me before you','2024-03-09',9780143109464),

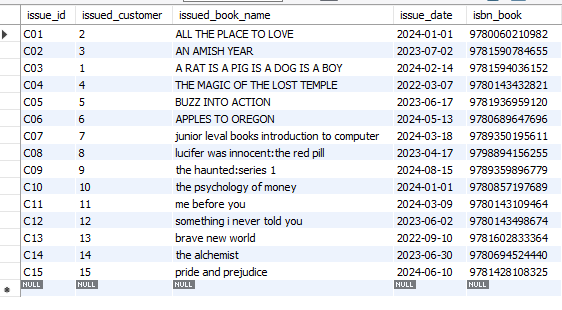
('C12',12,'something i never told you','2023-06-02',9780143498674),

('C13',13,'brave new world','2022-09-10',9781602833364),

('C14',14,'the alchemist','2023-06-30',9780694524440),

('C15',15,'pride and prejudice','2024-06-10',9781428108325);

select\* from issue\_status;



create table return\_status(return\_id varchar(10) primary key,return\_cust INT,return\_book\_name varchar(50),

return\_date date,isbn\_book2 varchar(20),foreign key(isbn\_book2)references books(ISBN));

insert into return\_status(return\_id,return\_cust,return\_book\_name,return\_date,isbn\_book2)values

('R01',1,'A RAT IS A PIG IS A DOG IS A BOY','2024-05-18',9781594036152),

('R02',6,'APPLES TO OREGON','2024-07-03',9780689647696),

('R03',5,'BUZZ INTO ACTION','2024-01-11',9781936959120),

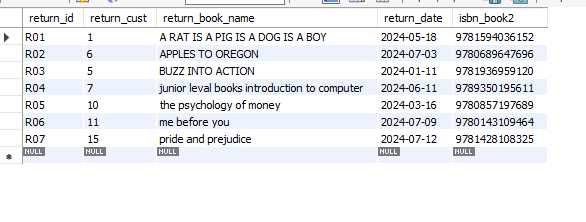
('R04',7,'junior leval books introduction to computer','2024-06-11',9789350195611),

('R05',10,'the psychology of money','2024-03-16',9780857197689),

('R06',11,'me before you','2024-07-09',9780143109464),

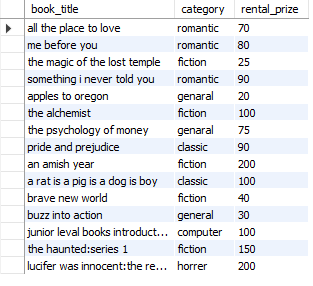
('R07',15,'pride and prejudice','2024-07-12',9781428108325);

select\* from return\_status;



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

select book\_title,category,rental\_prize from books;



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

select emp\_id, emp\_name ,salary from employee order by salary desc;

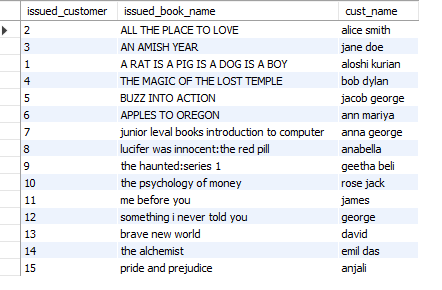


1. Retrieve the book titles and the corresponding customers who have issued those books.

select issue\_status.issued\_customer,

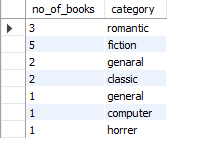
issue\_status.issued\_book\_name,customer.cust\_name from issue\_status left join customer

on issue\_status.issued\_customer=customer.cust\_id;



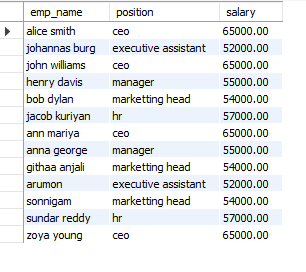
1. Display the total count of books in each category.

select count(book\_title)as no\_of\_books,category from books group by category;



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

select emp\_name,position,salary from employee where salary>50000.00;

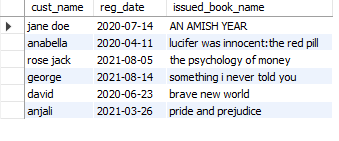


1. List the customer names who registered before 2022-01-01 and their issued books.

select customer.cust\_name ,customer.reg\_date,issue\_status.issued\_book\_name from customer left join issue\_status on

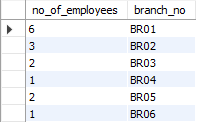
customer.cust\_id=issue\_status.issued\_customer where

customer. reg\_date<'2022-01-01';



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

select count(emp\_id) as no\_of\_employees,branch\_no from employee group by branch\_no;

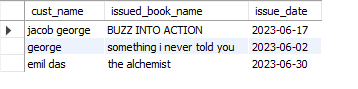


1. Display the names of customers who have issued books in the month of June 2023.

select customer.cust\_name,issue\_status.issued\_book\_name,issue\_status.issue\_date from

customer left join issue\_status on customer.cust\_id=issue\_status.issued\_customer where

issue\_status.issue\_date between '2023-06-01' and '2023-06-30';



1. Retrieve book\_title from book table containing fiction.

select book\_title,category from

books where category='fiction';



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

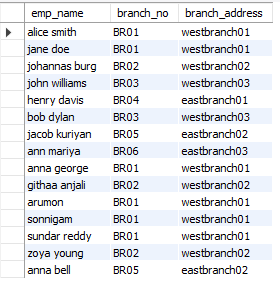
select branch\_no,count(emp\_id) as no\_of\_employees from employee group by branch\_no having count(emp\_id)>5;



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

select employee.emp\_name, employee.branch\_no,branch.branch\_address from employee left join branch on

employee.branch\_no=branch.branch\_no ;



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

select customer.cust\_name ,books.book\_title,books.rental\_prize from customer inner join issue\_status

on customer.cust\_id=issue\_status.issued\_customer inner join books on issue\_status.isbn\_book=books.ISBN where books.rental\_prize>25;