

Table 1. Branch

Branch_no - Set as PRIMARY KEY Manager_Id Branch_address Contact_no

	Field	Type	Null	Key	Default
►	Branch_no	varchar(10)	NO	PRI	NULL
	Manager_id	varchar(10)	YES		NULL
	Branch_address	varchar(30)	YES		NULL
	Contact_no	varchar(15)	YES		NULL

	Branch_no	Manager_id	Branch_address	Contact_no
►	B001	M101	123 Palakkad	+919099988676
	B002	M102	456 Ernakulam	+919099988677
	B003	M103	789 Kottayam	+919099988678
	B004	M104	567 Calicut	+919099988679
	B005	M105	890 Trivandrum	+919099988680
★	NULL	NULL	NULL	NULL

Table 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

	Field	Type	Null	Key
►	Emp_ID	varchar(10)	NO	PRI
	Emp_name	varchar(30)	YES	
	Emp_Position	varchar(20)	YES	
	Salary	decimal(10,2)	YES	
	branch_number	varchar(10)	YES	MUL

	Emp_ID	Emp_name	Emp_Position	Salary	branch_number
►	E101	John	Manager	60000.00	B001
	E102	Anu	Clerk	45000.00	B003
	E103	James	Librarian	55000.00	B002
	E104	Eva	Assistant	40000.00	B001
	E105	Sarah	Assistant	42000.00	B004
	E106	Rakesh	Assistant	43000.00	B005
	E107	Manu	Manager	62000.00	B002
	E108	Rahul	Clerk	46000.00	B001
	E109	Devika	Librarian	57000.00	B003
	E110	Nithya	Assistant	41000.00	B005
	E111	Divya	Manager	65000.00	B004
	E112	Jacob	clerk	30000.00	B001
	E113	Ram	Trainee	10000.00	B001
	E114	Raj	clerk	30000.00	B001
★	NULL	NULL	NULL	NULL	NULL

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

	Field	Type	Null	Key
►	ISBN	varchar(25)	NO	PRI
	Book_title	varchar(80)	YES	
	Category	varchar(30)	YES	
	Rental_Price	decimal(10,2)	YES	
	Status	enum('Yes','No')	YES	
	Author	varchar(30)	YES	
	Publisher	varchar(30)	YES	

	ISBN	Book_title	Category	Rental_Price	Status	Author	Publisher
►	978-0-09-957807-9	A Game of Thrones	Fantasy	7.50	Yes	George R.R. Martin	Bantam
	978-0-14-044930-3	The Histories	History	5.50	Yes	Herodotus	Penguin Classics
	978-0-14-118776-1	One Hundred Years of Solitude	Literary Fiction	6.50	Yes	Gabriel Garcia Marquez	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	No	Barbara W. Tuchman	Oxford University Press
	978-0-307-37840-1	The Alchemist	Fiction	2.50	Yes	Paulo Coelho	HarperOne
	978-0-307-58837-1	Sapiens: A Brief History of Humankind	History	8.00	Yes	Yuval Noah Harari	Harper Perennial
	978-0-330-25864-8	Animal Farm	Classic	5.50	Yes	George Orwell	Penguin Books
	978-0-375-41398-8	The Diary of a Young Girl	History	6.50	Yes	Anne Frank	Bantam
	978-0-393-05081-8	A People's History of the United States	History	9.00	Yes	Howard Zinn	Harper Perennial
	978-0-393-91257-8	Guns, Germs, and Steel: The Fates of...	History	7.00	No	Jared Diamond	W. W. Norton & Comp...
	978-0-525-47535-5	The Great Gatsby	Classic	8.00	No	F. Scott Fitzgerald	Scribner
	978-0-553-29698-2	The Catcher in the Rye	Classic	7.00	Yes	J.D. Salinger	Little, Brown and Comp...
	978-0-679-76489-8	Harry Potter and the Sorcerer's Stone	Fantasy	7.00	Yes	J.K. Rowling	Scholastic
	978-0-7432-4722-4	The Da Vinci Code	Mystery	8.00	Yes	Dan Brown	Doubleday
	978-0-7432-7357-1	1491: New Revelations of the Americ...	History	6.50	Yes	Charles C. Mann	Vintage Books

Table 4. Customer

Customer_Id - Set as PRIMARY KEY Customer_name Customer_address Reg_date

	Field	Type	Null	Key
►	Customer_Id	varchar(10)	NO	PRI
	Customer_name	varchar(30)	YES	
	Customer_address	varchar(30)	YES	
	Reg_date	date	YES	

	Customer_Id	Customer_name	Customer_address	Reg_date
►	C101	Alice	123 Palakkad	2023-05-15
	C102	Bob	456 Ernakulam	2022-06-20
	C103	Chandni	789 Kottayam	2024-07-10
	C104	Dev	567 Calicut	2024-08-05
	C105	Eve	890 Trivandrum	2023-09-25
	C106	Franklin	456 Ernakulam	2022-10-15
	C107	Grace	789 Kottayam	2021-11-20
	C108	Henry	567 Calicut	2023-12-10
	C109	shani	123 Palakkad	2022-01-05
	C110	Jack	890 Trivandrum	2024-02-25

Table 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

	Field	Type	Null	Key
►	Issue_Id	varchar(10)	NO	PRI
	Issued_cust	varchar(30)	YES	MUL
	Issued_book_name	varchar(80)	YES	
	Issue_date	date	YES	
	Isbn_book	varchar(25)	YES	MUL

	Issue_Id	Issued_cust	Issued_book_name	Issue_date	Isbn_book
►	IS101	C101	The Catcher in the Rye	2023-05-01	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	2023-05-04	978-0-307-58837-1
	IS105	C105	The Diary of a Young Girl	2023-05-05	978-0-375-41398-8
	IS106	C106	The Histories	2023-06-01	978-0-14-044930-3

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

	Field	Type	Null	Key
►	Return_id	varchar(10)	NO	PRI
	Return_cust	varchar(30)	YES	
	Return_book_name	varchar(80)	YES	
	Return_date	date	YES	
	isbn_book2	varchar(25)	YES	MUL

	Return_id	Return_cust	Return_book_name	Return_date	isbn_book2
►	RS101	C101	The Catcher in the Rye	2023-06-06	978-0-553-29698-2
	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	2023-06-10	978-0-09-957807-9

Queries

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

```
SELECT book_title, category, rental_price FROM books  
WHERE Status = 'Yes';
```

	book_title	category	rental_price
►	A Game of Thrones	Fantasy	7.50
	The Histories	History	5.50
	One Hundred Years of Solitude	Literary Fiction	6.50
	Jane Eyre	Classic	4.00
	The Alchemist	Fiction	2.50
	Sapiens: A Brief History of Humankind	History	8.00
	Animal Farm	Classic	5.50
	The Diary of a Young Girl	History	6.50
	A People's History of the United States	History	9.00
	The Catcher in the Rye	Classic	7.00
	Harry Potter and the Sorcerer's Stone	Fantasy	7.00
	The Da Vinci Code	Mystery	8.00
	1491: New Revelations of the Americ...	History	6.50

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

```
SELECT emp_name, salary FROM employee  
ORDER BY Salary DESC;
```

	emp_name	salary
►	Divya	65000.00
	Manu	62000.00
	John	60000.00
	Devika	57000.00
	James	55000.00
	Rahul	46000.00
	Anu	45000.00
	Rakesh	43000.00
	Sarah	42000.00
	Nithya	41000.00
	Eva	40000.00

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

```
SELECT  
    issuestatus.Issued_book_name, customer.Customer_name  
FROM  
    issuestatus  
    INNER JOIN  
    customer ON issuestatus.Issued_cust = customer.Customer_Id;
```

	Issued_book_name	Customer_name
▶	The Catcher in the Rye	Alice
	The Da Vinci Code	Bob
	1491: New Revelations of the Americas Before ...	Chandni
	Sapiens: A Brief History of Humankind	Dev
	The Diary of a Young Girl	Eve
	The Histories	Franklin

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

```
SELECT Category, COUNT(Book_title) as count FROM books  
GROUP BY Category;
```

	Category	count
▶	Fantasy	2
	History	7
	Literary Fiction	1
	Classic	4
	Fiction	1
	Mystery	1

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

```
SELECT Emp_name as Employee_name, emp_position as position from employee  
where salary>50000;
```

	Employee_name	position
▶	John	Manager
	James	Librarian
	Manu	Manager
	Devika	Librarian
	Divya	Manager

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

```
SELECT customer_name FROM customer  
WHERE Reg_date < '2022-01-01' AND Customer_Id NOT IN  
(SELECT issued_cust FROM issuestatus);
```

	customer_name
▶	Grace

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

```
SELECT Branch_number, COUNT(emp_id) as Count  
FROM employee GROUP BY branch_number;
```

	Branch_number	Count
▶	B001	3
	B002	2
	B003	2
	B004	2
	B005	2

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

```
SELECT customer.Customer_name as Customer_Name FROM customer  
INNER JOIN issuestatus ON  
customer.Customer_Id = issuestatus.Issued_cust  
WHERE issuestatus.Issue_date >= '2023-06-01'  
AND issuestatus.Issue_date <= '2023-06-30';
```

	Customer_Name
▶	Franklin

9. Retrieve book_title from book table containing history.

```
SELECT Book_title FROM books  
WHERE Category = 'history';
```

	Book_title
▶	The Histories
	The Guns of August
	Sapiens: A Brief History of Humankind
	The Diary of a Young Girl
	A People's History of the United States
	Guns, Germs, and Steel: The Fates of Human S...
	1491: New Revelations of the Americas Before ...

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

```
SELECT branch_number, COUNT(emp_id) as count  
FROM employee  
GROUP BY branch_number  
HAVING COUNT(Emp_id) > 5;
```

	branch_number	count
▶	B001	6

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

```
Select E.Emp_name , b.Branch_Address from employee E  
inner join branch b  
on e.branch_number = b.branch_no and emp_position = 'Manager';
```

	Emp_name	Branch_Address
▶	John	123 Palakkad
	Manu	456 Ernakulam
	Divya	567 Calicut

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

```
Select C.Customer_Name, b.Rental_Price  from customer c
join   issuestatus i
on c.Customer_id = I.issued_cust
join  books b on I.isbn_book= b.isbn and b.rental_price>25;
```

	Customer_Name	Rental_Price
▶	Chandni	30.00
	Dev	30.00