

LIBRARY

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

The screenshot shows a database management tool interface. The top section displays SQL code for creating a database and a table. The bottom section shows the results of the execution, including a table of field attributes and an action output log.

```
1
2 CREATE DATABASE library;
3 USE library;
4
5 -- Creating Branch table
6 CREATE TABLE Branch (
7   Branch_no INT PRIMARY KEY,
8   Manager_Id INT,
9   Branch_address VARCHAR(255),
10  Contact_no VARCHAR(15)
11 );
12
13 desc Branch;
```

Field	Type	Null	Key	Default	Extra
Branch_no	int	NO	PRI		
Manager_Id	int	YES			
Branch_address	varchar(255)	YES			
Contact_no	varchar(15)	YES			

#	Time	Action	Message	Duration / Fetch
2	10:08:49	USE library	0 row(s) affected	0.000 sec
3	10:08:55	CREATE TABLE Branch (Branch_no INT PRIMARY KEY, Manager_Id INT, Branch_address VARCHAR...	0 row(s) affected	0.031 sec
4	10:09:59	desc Branch	4 row(s) returned	0.016 sec / 0.000 sec

Limit to 1000 rows

```

15 • INSERT INTO Branch (Branch_no, Manager_Id, Branch_address, Contact_no) VALUES
16 (11, 111, '876 Oak St', '123-456-7890'),
17 (12, 112, '543 Pine St', '987-654-3210'),
18 (13, 113, '234 Elm St', '456-789-0123'),
19 (14, 114, '987 Maple St', '789-012-3456'),
20 (15, 115, '321 Cedar St', '012-345-6789'),
21 (16, 116, '567 Birch St', '234-567-8901'),
22 (17, 117, '890 Walnut St', '567-890-1234'),
23 (18, 118, '123 Spruce St', '890-123-4567'),
24 (19, 119, '890 Fir St', '345-678-9012'),
25 (20, 120, '456 Oak St', '678-901-2345');
26 • select * from Branch;

```

Branch_no	Manager_Id	Branch_address	Contact_no
11	111	876 Oak St	123-456-7890
12	112	543 Pine St	987-654-3210
13	113	234 Elm St	456-789-0123
14	114	987 Maple St	789-012-3456
15	115	321 Cedar St	012-345-6789
16	116	567 Birch St	234-567-8901
17	117	890 Walnut St	567-890-1234
18	118	123 Spruce St	890-123-4567
19	119	890 Fir St	345-678-9012
20	120	456 Oak St	678-901-2345

Branch 2 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
5	10:21:21	INSERT INTO Branch (Branch_no, Manager_Id, Branch_address, Contact_no) VALUES (11, 111, '876 Oak S...	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0	0.016 sec
6	10:21:51	select * from Branch LIMIT 0, 1000	10 row(s) returned	0.000 sec / 0.000 sec

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

Limit to 1000 rows

```

22 (17, 117, '890 Walnut St', '567-890-1234'),
23 (18, 118, '123 Spruce St', '890-123-4567'),
24 (19, 119, '890 Fir St', '345-678-9012'),
25 (20, 120, '456 Oak St', '678-901-2345');
26 • select * from Branch;
27 -- Create the Employee table
28 • CREATE TABLE Employee (
29     Emp_Id INT PRIMARY KEY,
30     Emp_name VARCHAR(255),
31     Position VARCHAR(50),
32     Salary DECIMAL(10, 2),
33     Branch_no INT,
34     FOREIGN KEY (Branch_no) REFERENCES Branch(Branch_no)
35 );
36 • desc Employee;
37 Create the Bank table

```

Field	Type	Null	Key	Default	Extra
Emp_Id	int	NO	PRI		
Emp_name	varchar(255)	YES			
Position	varchar(50)	YES			
Salary	decimal(10,2)	YES			
Branch_no	int	YES	MUL		

Result 3 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
7	10:24:18	CREATE TABLE Employee (Emp_Id INT PRIMARY KEY, Emp_name VARCHAR(255), Position VARC...	0 row(s) affected	0.063 sec
8	10:24:44	desc Employee	5 row(s) returned	0.016 sec / 0.000 sec

Limit to 1000 rows

```

36 • desc Employee;
37 -- Inserting values
38 • INSERT INTO Employee (Emp_Id, Emp_name, Position, Salary, Branch_no) VALUES
39 (111, 'Lia', 'Manager', 81000, 11),
40 (112, 'Ema', 'Assistant Manager', 74000, 12),
41 (113, 'Nia', 'Librarian', 61000, 13),
42 (114, 'Olia', 'Clerk', 46000, 14),
43 (115, 'Masoa', 'Clerk', 43000, 15),
44 (116, 'Isabia', 'Librarian', 43000, 16),
45 (117, 'Ethania', 'Assistant Manager', 54000, 17),
46 (118, 'Sophia', 'Manager', 81000, 18),
47 (119, 'Lucias', 'Clerk', 34000, 19),
48 (120, 'Amelia', 'Assistant Manager', 74000, 20);
49 # displays table employee
50 • select * from Employee;

```

Emp_Id	Emp_name	Position	Salary	Branch_no
111	Lia	Manager	81000.00	11
112	Ema	Assistant Manager	74000.00	12
113	Nia	Librarian	61000.00	13
114	Olia	Clerk	46000.00	14
115	Masoa	Clerk	43000.00	15
116	Isabia	Librarian	43000.00	16
117	Ethania	Assistant Manager	54000.00	17

Employee 4 x

Output

#	Time	Action	Message	Duration / Fetch
9	10:49:30	INSERT INTO Employee (Emp_Id, Emp_name, Position, Salary, Branch_no) VALUES (111, 'Lia', 'Manager', 81...	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0	0.016 sec
10	10:49:50	select * from Employee LIMIT 0 1000	10 row(s) returned	0.000 sec / 0.000 sec

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

Limit to 1000 rows

```

51 -- Creating Books table
52 • CREATE TABLE Books (
53 ISBN VARCHAR(20) PRIMARY KEY,
54 Book_title VARCHAR(255),
55 Category VARCHAR(50),
56 Rental_Price DECIMAL(10, 2),
57 Status ENUM('yes', 'no'),
58 Author VARCHAR(255),
59 Publisher VARCHAR(255)
60 );
61 • desc Books;

```

Field	Type	Null	Key	Default	Extra
ISBN	varchar(20)	NO	PRI	NULL	
Book_title	varchar(255)	YES		NULL	
Category	varchar(50)	YES		NULL	
Rental_Price	decimal(10,2)	YES		NULL	
Status	enum('yes','no')	YES		NULL	
Author	varchar(255)	YES		NULL	
Publisher	varchar(255)	YES		NULL	

Result 5 x

Output

#	Time	Action	Message	Duration / Fetch
11	10:52:35	CREATE TABLE Books (ISBN VARCHAR(20) PRIMARY KEY, Book_title VARCHAR(255), Category V...	0 row(s) affected	0.031 sec
12	10:53:41	desc Books	7 row(s) returned	0.000 sec / 0.000 sec

Limit to 1000 rows

```

63 • INSERT INTO Books (ISBN, Book_title, Category, Rental_Price, Status, Author, Publisher) VALUES
64 ('9780141183410', 'The Picture of Dorian Gray', 'Classic Literature', 27.99, 'yes', 'Oscar Wilde', 'Penguin Classics'),
65 ('9780141439617', 'Jane Eyre', 'Classic Literature', 25.50, 'yes', 'Charlotte Brontë', 'Penguin Classics'),
66 ('9780553293357', '1984', 'Dystopian Fiction', 23.99, 'yes', 'George Orwell', 'Signet Classic'),
67 ('9780061120084', 'To Kill a Mockingbird', 'Classic Literature', 21.25, 'yes', 'Harper Lee', 'Harper Perennial Modern Classics'),
68 ('9781400032716', 'The Great Gatsby', 'Classic Literature', 27.75, 'yes', 'F. Scott Fitzgerald', 'Scribner'),
69 ('9780743273565', 'The Lord of the Rings', 'Fantasy', 24.99, 'yes', 'J.R.R. Tolkien', 'Mariner Books'),
70 ('9780064400558', 'Charlotte's Web', 'Children's Literature', 20.99, 'yes', 'E.B. White', 'Harper & Brothers'),
71 ('9780547928227', 'Harry Potter and the Sorcerer's Stone', 'Fantasy', 29.99, 'yes', 'J.K. Rowling', 'Scholastic Inc.'),
72 ('9780446310788', 'The Da Vinci Code', 'Mystery', 26.49, 'yes', 'Dan Brown', 'Random House Audio'),
73 ('9780739344114', 'The Lost Symbol', 'Mystery', 29.95, 'yes', 'Dan Brown', 'Random House Audio');
74 # displays table Books
75 • select * from Books;

```

Result Grid

ISBN	Book_title	Category	Rental_Price	Status	Author	Publisher
9780061120084	To Kill a Mockingbird	Classic Literature	21.25	yes	Harper Lee	Harper Perennial Modern Classics
9780064400558	Charlotte's Web	Children's Literature	20.99	yes	E.B. White	Harper & Brothers
9780141183410	The Picture of Dorian Gray	Classic Literature	27.99	yes	Oscar Wilde	Penguin Classics
9780141439617	Jane Eyre	Classic Literature	25.50	yes	Charlotte Brontë	Penguin Classics
9780446310788	The Da Vinci Code	Mystery	26.49	yes	Dan Brown	Random House Audio
9780547928227	Harry Potter and the Sorcerer's Stone	Fantasy	29.99	yes	J.K. Rowling	Scholastic Inc.
9780553293357	1984	Dystopian Fiction	23.99	yes	George Orwell	Signet Classic
9780739344114	The Lost Symbol	Mystery	29.95	yes	Dan Brown	Random House Audio
9780743273565	The Lord of the Rings	Fantasy	24.99	yes	J.R.R. Tolkien	Mariner Books
9781400032716	The Great Gatsby	Classic Literature	27.75	yes	F. Scott Fitzgerald	Scribner

Books 6 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
14	11:33:19	INSERT INTO Books (ISBN, Book_title, Category, Rental_Price, Status, Author, Publisher) VALUES ('9780141183410', 'The Picture of Dorian Gray', 'Classic Literature', 27.99, 'yes', 'Oscar Wilde', 'Penguin Classics');	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0	0.015 sec
15	11:33:41	select * from Books LIMIT 0, 1000	10 row(s) returned	0.000 sec / 0.000 sec

4. Customer

- Customer_Id - Set as PRIMARY KEY
- Customer_name
- Customer_address
- Reg_date

Limit to 1000 rows

```

73 ('9780739344114', 'The Lost Symbol', 'Mystery', 29.95, 'yes', 'Dan Brown', 'Random House Audio');
74 # displays table Books
75 • select * from Books;
76 -- Creating Customer table
77 • CREATE TABLE Customer (
78     Customer_Id INT PRIMARY KEY,
79     Customer_name VARCHAR(255),
80     Customer_address VARCHAR(255),
81     Reg_date DATE
82 );
83 • desc Customer;

```

Result Grid

Field	Type	Null	Key	Default	Extra
Customer_Id	int	NO	PRI		
Customer_name	varchar(255)	YES			
Customer_address	varchar(255)	YES			
Reg_date	date	YES			

Result 7 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
13	11:29:58	INSERT INTO Books (ISBN, Book_title, Category, Rental_Price, Status, Author, Publisher) VALUES ('9780141183410', 'The Picture of Dorian Gray', 'Classic Literature', 27.99, 'yes', 'Oscar Wilde', 'Penguin Classics');	Error Code: 1062 Duplicate entry '9780446310788' for key books.PRIMARY	0.016 sec
14	11:33:19	INSERT INTO Books (ISBN, Book_title, Category, Rental_Price, Status, Author, Publisher) VALUES ('9780141183410', 'The Picture of Dorian Gray', 'Classic Literature', 27.99, 'yes', 'Oscar Wilde', 'Penguin Classics');	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0	0.015 sec
15	11:33:41	select * from Books LIMIT 0, 1000	10 row(s) returned	0.000 sec / 0.000 sec
16	11:36:01	CREATE TABLE Customer (Customer_Id INT PRIMARY KEY, Customer_name VARCHAR(255), Customer_address VARCHAR(255), Reg_date DATE)	0 row(s) affected	0.031 sec
17	11:36:53	desc Customer	4 row(s) returned	0.016 sec / 0.000 sec

```

84 -- Inserting data into the Customer table
85 • INSERT INTO Customer (Customer_Id, Customer_name, Customer_address, Reg_date)
86   VALUES
87   (1, 'John Doe', '123 Main St', '2023-05-15'),
88   (2, 'Jane Smith', '456 Elm St', '2023-06-20'),
89   (3, 'Michael Johnson', '789 Oak St', '2023-07-10'),
90   (4, 'Emily Brown', '321 Maple St', '2023-08-05'),
91   (5, 'William Wilson', '567 Pine St', '2023-09-15'),
92   (6, 'Sophia Martinez', '890 Cedar St', '2023-10-20'),
93   (7, 'James Jones', '234 Birch St', '2022-11-10'),
94   (8, 'Olivia Davis', '876 Walnut St', '2023-12-05'),
95   (9, 'Daniel Garcia', '543 Spruce St', '2024-01-15'),
96   (10, 'Ava Rodriguez', '987 Fir St', '2024-02-20');
97 # displays table Customer
98 • select * from Customer;

```

Customer_Id	Customer_name	Customer_address	Reg_date
1	John Doe	123 Main St	2023-05-15
2	Jane Smith	456 Elm St	2023-06-20
3	Michael Johnson	789 Oak St	2023-07-10
4	Emily Brown	321 Maple St	2023-08-05
5	William Wilson	567 Pine St	2023-09-15
6	Sophia Martinez	890 Cedar St	2023-10-20
7	James Jones	234 Birch St	2022-11-10
8	Olivia Davis	876 Walnut St	2023-12-05

Customer 10 x

#	Time	Action	Message	Duration / Fetch
24	12:48:17	INSERT INTO Customer (Customer_Id, Customer_name, Customer_address, Reg_date) VALUES (1, 'John D...	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0	0.016 sec
25	12:48:27	select * from Customer LIMIT 0, 1000	10 row(s) returned	0.000 sec / 0.000 sec

5. IssueStatus

- Issue_Id - Set as PRIMARY KEY
- Issued_cust – Set as FOREIGN KEY and it refer customer_id in CUSTOMER table
- Issue_date
- Isbn_book – Set as FOREIGN KEY and it should refer isbn in BOOKS table

```

111 # creation of table IssueStatus
112 • create table IssueStatus(
113     Issue_Id int primary key,
114     Issued_cust int,
115     foreign key(Issued_cust) references Customer(Customer_Id) on delete cascade,
116     Issue_date date,
117     Isbn_book int,
118     foreign key(Isbn_book) references Books(ISBN) on delete cascade);
119
120 # adding values to table IssueStatus

```

```

1 • use library;
2 • INSERT INTO IssueStatus (Issue_Id, Issued_cust, Issued_book_name, Issue_date, Isbn_book) VALUES
3   (1, 1, 'The Picture of Dorian Gray', '2023-06-06', '9780141183410'),
4   (2, 2, 'Jane Eyre', '2022-05-02', '9780141439617'),
5   (3, 3, '1984', '2023-07-03', '9780553293357'),
6   (4, 4, 'To Kill a Mockingbird', '2023-05-04', '9780061120084'),
7   (5, 5, 'The Great Gatsby', '2019-05-05', '9781400032716'),
8   (6, 6, 'The Lord of the Rings', '2023-06-06', '9780743273565'),
9   (7, 7, 'Charlotte''s Web', '2023-07-07', '9780064400558'),
10  (8, 8, 'Harry Potter and the Sorcerer''s Stone', '2023-01-08', '9780547928227'),
11  (9, 9, 'The Da Vinci Code', '2021-06-19', '9780446310788'),
12  (10, 10, 'The Lost Symbol', '2023-11-10', '9780739344114');
13 • select*from IssueStatus;

```

Issue_Id	Issued_cust	Issued_book_name	Issue_date	Isbn_book
1	1	The Picture of Dorian Gray	2023-06-06	9780141183410
2	2	Jane Eyre	2022-05-02	9780141439617
3	3	1984	2023-07-03	9780553293357
4	4	To Kill a Mockingbird	2023-05-04	9780061120084
5	5	The Great Gatsby	2019-05-05	9781400032716
6	6	The Lord of the Rings	2023-06-06	9780743273565
7	7	Charlotte's Web	2023-07-07	9780064400558
8	8	Harry Potter and the Sorcerer's Stone	2023-01-08	9780547928227
9	9	The Da Vinci Code	2021-06-19	9780446310788

IssueStatus 2 x

#	Time	Action	Message	Duration / Fetch
2	16:59:55	select from IssueStatus LIMIT 0, 1000	10 row(s) returned	0.031 sec / 0.000 sec
3	17:00:08	INSERT INTO IssueStatus (Issue_Id, Issued_cust, Issued_book_name, Issue_date, Isbn_book) VALUES (1, 1, ...	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0	0.062 sec
4	17:00:15	select*from IssueStatus LIMIT 0, 1000	10 row(s) returned	0.000 sec / 0.000 sec

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

The screenshot displays a database management interface with two main sections. The top section shows the SQL script for creating the `ReturnStatus` table and inserting data. The bottom section shows the output of these queries.

SQL Script:

```
15 CREATE TABLE ReturnStatus (  
16     Return_Id INT PRIMARY KEY,  
17     Return_cust INT,  
18     Return_book_name VARCHAR(255),  
19     Return_date DATE,  
20     Isbn_book2 VARCHAR(20),  
21     FOREIGN KEY (Return_cust) REFERENCES Customer(Customer_Id),  
22     FOREIGN KEY (Isbn_book2) REFERENCES Books(ISBN)  
23 );  
24
```

Output:

#	Time	Action	Message	Duration / Fetch
4	17:00:15	select from IssueStatus LIMIT 0, 1000	10 row(s) returned	0.000 sec / 0.000 sec
5	17:04:15	CREATE TABLE ReturnStatus (Return_Id INT PRIMARY KEY, Return_cust INT, Return_book_name ...	0 row(s) affected	0.156 sec

Insert Statement:

```
23 );  
24 INSERT INTO ReturnStatus (Return_Id, Return_cust, Return_book_name, Return_date, Isbn_book2) VALUES  
25 (1, 1, 'The Picture of Dorian Gray', '2023-05-11', '9780141183410'),  
26 (2, 2, 'Jane Eyre', '2023-06-12', '9780141439617'),  
27 (3, 3, '1984', '2023-05-13', '9780553293357'),  
28 (4, 4, 'To Kill a Mockingbird', '2023-05-14', '9780061120084'),  
29 (5, 5, 'The Great Gatsby', '2023-06-15', '9781400032716'),  
30 (6, 6, 'The Lord of the Rings', '2023-05-16', '9780743273565'),  
31 (7, 7, 'Charlotte's Web', '2023-05-17', '9780064400558'),  
32 (8, 8, 'Harry Potter and the Sorcerer's Stone', '2023-06-18', '9780547928227'),  
33 (9, 9, 'The Da Vinci Code', '2023-06-19', '9780446310788'),  
34 (10, 10, 'The Lost Symbol', '2023-05-20', '9780739344114');  
35 select*from ReturnStatus;
```

Result Grid:

Return_Id	Return_cust	Return_book_name	Return_date	Isbn_book2
1	1	The Picture of Dorian Gray	2023-05-11	9780141183410
2	2	Jane Eyre	2023-06-12	9780141439617
3	3	1984	2023-05-13	9780553293357
4	4	To Kill a Mockingbird	2023-05-14	9780061120084
5	5	The Great Gatsby	2023-06-15	9781400032716
6	6	The Lord of the Rings	2023-05-16	9780743273565
7	7	Charlotte's Web	2023-05-17	9780064400558
8	8	Harry Potter and the Sorcerer's Stone	2023-06-18	9780547928227
9	9	The Da Vinci Code	2023-06-19	9780446310788
10	10	The Lost Symbol	2023-05-20	9780739344114

Output:

#	Time	Action	Message	Duration / Fetch
6	17:13:33	INSERT INTO ReturnStatus (Return_Id, Return_cust, Return_book_name, Return_date, Isbn_book2) VALUE...	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0	0.015 sec

Display all the tables and Write the queries for the following :

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

Limit to 1000 rows

```

35 • select*from ReturnStatus;
36 -- 1. Retrieve the book title, category, and rental price of all available books
37 • SELECT
38     Book_title,
39     Category,
40     Rental_Price
41 FROM
42     Books
43 WHERE
44     Status = 'yes';

```

Result Grid

Book_title	Category	Rental_Price
To Kill a Mockingbird	Classic Literature	21.25
Charlotte's Web	Children's Literature	20.99
The Picture of Dorian Gray	Classic Literature	27.99
Jane Eyre	Classic Literature	25.50
The Da Vinci Code	Mystery	26.49
Harry Potter and the Sorcerer's Stone	Fantasy	29.99
1984	Dystopian Fiction	23.99
The Lost Symbol	Mystery	29.95
The Lord of the Rings	Fantasy	24.99
The Great Gatsby	Classic Literature	27.75

Books 4 x Read Only

Output

Action Output

#	Time	Action	Message	Duration / Fetch
7	17:14:02	select*from ReturnStatus LIMIT 0, 1000	10 row(s) returned	0.000 sec / 0.000 sec
8	17:15:17	SELECT Book_title, Category, Rental_Price FROM Books WHERE Status = 'yes' LIMIT 0, 1000	10 row(s) returned	0.000 sec / 0.000 sec

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

Limit to 1000 rows

```

43 WHERE
44     Status = 'yes';
45 -- 2. List the employee names and their respective salaries in descending order of salary
46 • SELECT
47     Emp_name,
48     Salary
49 FROM
50     Employee
51 ORDER BY
52     Salary DESC;
53

```

Result Grid

Emp_name	Salary
Lia	81000.00
Sophia	81000.00
Ema	74000.00
Amelia	74000.00
Nia	61000.00
Ethania	54000.00
Ola	46000.00
Masoia	43000.00
Isabiah	43000.00
Lucas	34000.00

Employee 5 x Read Only

Output

Action Output

#	Time	Action	Message	Duration / Fetch
8	17:15:17	SELECT Book_title, Category, Rental_Price FROM Books WHERE Status = 'yes' LIMIT 0, 1000	10 row(s) returned	0.000 sec / 0.000 sec
9	17:17:17	SELECT Emp_name, Salary FROM Employee ORDER BY Salary DESC LIMIT 0, 1000	10 row(s) returned	0.015 sec / 0.000 sec

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

```

54 -- 3. Retrieve the book titles and the corresponding customers who have issued those books
55 • SELECT
56     b.Book_title,
57     c.Customer_name
58 FROM
59     IssueStatus i
60 JOIN Books b ON i.Isbn_book = b.ISBN
61 JOIN Customer c ON i.Issued_cust = c.Customer_Id;
62

```

Book_title	Customer_name
The Picture of Dorian Gray	John Doe
Jane Eyre	Jane Smith
1984	Michael Johnson
To Kill a Mockingbird	Emily Brown
The Great Gatsby	William Wilson
The Lord of the Rings	Sophia Martinez
Charlotte's Web	James Jones
Harry Potter and the Sorcerer's Stone	Olivia Davis
The Da Vinci Code	Daniel Garcia
The Lost Symbol	Ava Rodriguez

Result 6 x

Output

#	Time	Action	Message	Duration / Fetch
9	17:17:17	SELECT Emp_name, Salary FROM Employee ORDER BY Salary DESC LIMIT 0, 1000	10 row(s) returned	0.015 sec / 0.000 sec
10	17:18:03	SELECT b.Book_title, c.Customer_name FROM IssueStatus i JOIN Books b ON i.Isbn_book = b.ISBN J...	10 row(s) returned	0.000 sec / 0.000 sec

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

```

63 -- 4. Display the total count of books in each category
64 • SELECT
65     Category,
66     COUNT(*) AS Total_Count
67 FROM
68     Books
69 GROUP BY
70     Category;
71
72 -- 5. Retrieve the employee names and their positions for the employees whose salaries are above Rs.50,000

```

Category	Total_Count
Classic Literature	4
Children's Literature	1
Mystery	2
Fantasy	2
Dystopian Fiction	1

Result 7 x

Output

#	Time	Action	Message	Duration / Fetch
10	17:18:03	SELECT b.Book_title, c.Customer_name FROM IssueStatus i JOIN Books b ON i.Isbn_book = b.ISBN J...	10 row(s) returned	0.000 sec / 0.000 sec
11	17:18:47	SELECT Category, COUNT(*) AS Total_Count FROM Books GROUP BY Category LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec

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


```

72 -- 5. Retrieve the employee names and their positions for the employees whose salaries are above Rs.50,000
73 • SELECT
74     Emp_name,
75     Position
76 FROM
77     Employee
78 WHERE
79     Salary > 50000;
80
81 -- 6. List the customer names who registered before 2022-01-01 and have not issued any books yet
82 • SELECT

```

Result Grid

Emp_name	Position
Lia	Manager
Ema	Assistant Manager
Nia	Librarian
Ethania	Assistant Manager
Sophia	Manager
Amelia	Assistant Manager

Employee 8 x

Output

#	Time	Action	Message	Duration / Fetch
11	17:18:47	SELECT Category, COUNT(*) AS Total_Count FROM Books GROUP BY Category LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
12	17:19:22	SELECT Emp_name, Position FROM Employee WHERE Salary > 50000 LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec

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

```

81 -- 6. List the customer names who registered before 2022-01-01 and have not issued any books yet
82 • SELECT
83     Customer_name
84 FROM
85     Customer
86 WHERE
87     Reg_date < '2022-01-01'
88     AND Customer_Id NOT IN (
89         SELECT
90             Issued_cust
91         FROM
92             IssueStatus
93     );

```

Result Grid

Customer_name

Customer 9 x

Output

#	Time	Action	Message	Duration / Fetch
12	17:19:22	SELECT Emp_name, Position FROM Employee WHERE Salary > 50000 LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec
13	17:20:06	SELECT Customer_name FROM Customer WHERE Reg_date < '2022-01-01' AND Customer_Id NOT IN ...	0 row(s) returned	0.000 sec / 0.000 sec

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

94
95 -- 7. Display the branch numbers and the total count of employees in each branch
96 • SELECT
97 Branch_no,
98 COUNT(*) AS Total_Employees
99 FROM
100 Employee
101 GROUP BY
102 Branch_no;
103
104 -- 8. Display the names of customers who have issued books in the month of June 2023
105 • SELECT

Branch_no	Total_Employees
11	1
12	1
13	1
14	1
15	1
16	1
17	1
18	1
19	1
20	1

Result 10 x

Output

#	Time	Action	Message	Duration / Fetch
13	17:20:06	SELECT Customer_name FROM Customer WHERE Reg_date < '2022-01-01' AND Customer_Id NOT IN ...	0 row(s) returned	0.000 sec / 0.000 sec
14	17:21:46	SELECT Branch_no, COUNT(*) AS Total_Employees FROM Employee GROUP BY Branch_no LIMIT 0, ...	10 row(s) returned	0.015 sec / 0.000 sec

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

103
104 -- 8. Display the names of customers who have issued books in the month of June 2023
105 • SELECT
106 c.Customer_name
107 FROM
108 IssueStatus i
109 JOIN Customer c ON i.Issued_cust = c.Customer_Id
110 WHERE
111 MONTH (Issue_date) = 6
112 AND YEAR (Issue_date) = 2023;
113
114 -- 9. Retrieve book title from book table containing history

Customer_name
John Doe
Sophia Martinez

Result 11 x

Output

#	Time	Action	Message	Duration / Fetch
14	17:21:46	SELECT Branch_no, COUNT(*) AS Total_Employees FROM Employee GROUP BY Branch_no LIMIT 0, ...	10 row(s) returned	0.015 sec / 0.000 sec
15	17:25:13	SELECT c.Customer_name FROM IssueStatus i JOIN Customer c ON i.Issued_cust = c.Customer_Id WHE...	2 row(s) returned	0.000 sec / 0.000 sec

9. Retrieve book_title from book table containing history.

Limit to 1000 rows

```

112 AND YEAR (Issue_date) = 2023;
113
114 -- 9. Retrieve book_title from book table containing history
115 • SELECT
116     Book_title
117 FROM
118     Books
119 WHERE
120     Category = 'History';
121
122 -- 10. Retrieve the branch numbers along with the count of employees for branches having more than 5 employees
123 • SELECT

```

Result Grid | Filter Rows: | Export: | Wrap Cell Contents: |

Book_title

Books 13 x | Read Only

Output

#	Time	Action	Message	Duration / Fetch
16	17:26:43	SELECT Book_title FROM Books WHERE Category = 'History' LIMIT 0, 1000	0 row(s) returned	0.000 sec / 0.000 sec
17	17:26:49	SELECT Book_title FROM Books WHERE Category = 'History' LIMIT 0, 1000	0 row(s) returned	0.000 sec / 0.000 sec

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

```

123 • SELECT
124     Branch_no,
125     COUNT(*) AS Total_Employees
126 FROM
127     Employee
128 GROUP BY
129     Branch_no
130 HAVING
131     COUNT(*) > 5;
132

```

Result Grid | Filter Rows: | Export: | Wrap Cell Contents: |

Branch_no Total_Employees

Result 14 x | Read Only

Output

#	Time	Action	Message	Duration / Fetch
17	17:26:49	SELECT Book_title FROM Books WHERE Category = 'History' LIMIT 0, 1000	0 row(s) returned	0.000 sec / 0.000 sec
18	17:27:30	SELECT Branch_no, COUNT(*) AS Total_Employees FROM Employee GROUP BY Branch_no HAVING ...	0 row(s) returned	0.015 sec / 0.000 sec

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

```

131     COUNT(*) > 5;
132
133 -- 11. Retrieve the names of employees who manage branches and their respective branch addresses
134 • SELECT
135     e.Emp_name,
136     b.Branch_address
137 FROM
138     Employee e
139 JOIN Branch b ON e.Branch_no = b.Branch_no
140 WHERE
141     e.Position = 'Manager';
142

```

Emp_name	Branch_address
Lia	876 Oak St
Sophia	123 Spruce St

Result 15 x

Output

#	Time	Action	Message	Duration / Fetch
18	17:27:30	SELECT Branch_no, COUNT(*) AS Total_Employees FROM Employee GROUP BY Branch_no HAVING ...	0 row(s) returned	0.015 sec / 0.000 sec
19	17:29:41	SELECT e.Emp_name, b.Branch_address FROM Employee e JOIN Branch b ON e.Branch_no = b.Branch...	2 row(s) returned	0.016 sec / 0.000 sec

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

```

141     e.Position = 'Manager';
142
143 -- 12. Display the names of customers who have issued books with a rental price higher than Rs. 25
144 • SELECT
145     c.Customer_name
146 FROM
147     IssueStatus i
148 JOIN Customer c ON i.Issued_cust = c.Customer_Id
149 JOIN Books b ON i.Isbn_book = b.ISBN
150 WHERE
151     b.Rental_Price > 25;

```

Customer_name
John Doe
Jane Smith
Daniel Garcia
Olivia Davis
Ava Rodriguez
William Wilson

Result 16 x

Output

#	Time	Action	Message	Duration / Fetch
19	17:29:41	SELECT e.Emp_name, b.Branch_address FROM Employee e JOIN Branch b ON e.Branch_no = b.Branch...	2 row(s) returned	0.016 sec / 0.000 sec
20	17:30:32	SELECT c.Customer_name FROM IssueStatus i JOIN Customer c ON i.Issued_cust = c.Customer_Id JOI...	6 row(s) returned	0.000 sec / 0.000 sec