

MySQL Project

The screenshot shows the MySQL Workbench interface with the 'SQL File 5' editor open. The editor contains SQL code to create a database named 'library', a table named 'Branch' with columns 'Branch_no' (PRIMARY KEY), 'Manager_Id' (INT), 'Branch_address' (VARCHAR(255)), and 'Contact_no' (VARCHAR(15)). It also includes an 'INSERT INTO Branch' statement with 10 rows of data. The 'Output' pane at the bottom shows the execution results of the queries, including the 'CREATE TABLE Branch' and 'INSERT INTO Branch' statements, with a message indicating that 10 rows were affected and 10 duplicates were found.

```
1 -- Create the database
2 CREATE DATABASE library;
3 USE library;
4 CREATE TABLE Branch (
5     Branch_no INT PRIMARY KEY,
6     Manager_Id INT,
7     Branch_address VARCHAR(255),
8     Contact_no VARCHAR(15)
9 );
10 -- Insert data into Branch table
11 INSERT INTO Branch (Branch_no, Manager_Id, Branch_address, Contact_no) VALUES
12 (1, 101, 'South Kalamassery, Ernakulam', '0484-257754'),
13 (2, 102, 'Ranipuram, Kasargod', '0484-325482'),
14 (3, 103, 'Shavakkotapalam, Alappuzha', '0484-253614'),
15 (4, 104, 'Cheruthoni, Idukki', '0484-845942'),
16 (5, 105, 'Pettimudi, Wayanad', '0484-759486'),
17 (6, 106, 'Tirur, Malappuram', '0484-325454'),
18 (7, 107, 'Velli, Trivandrum', '0484-326541'),
19 (8, 108, 'Kadalundi, Kozhikode', '0484-754896'),
20 (9, 109, 'Paravur, Kollam', '0484-154862'),
21 (10, 110, 'Mundakkayam, Kottayam', '0484-325146');
22 desc table branch;
23 select * from branch;
24 CREATE TABLE Employee (
25     Emp_Id INT PRIMARY KEY,
26     Emp_name VARCHAR(100),
```

#	Time	Action	Message	Duration / Fetch
25	23:20:05	select * from IssueStatus LIMIT 0.1000	10 row(s) returned	0.016 sec / 0.000 sec
26	23:20:15	CREATE TABLE ReturnStatus (Return_Id INT PRIMARY KEY, Return_out INT, Return_book_name...	0 row(s) affected	0.032 sec
27	23:26:29	INSERT INTO ReturnStatus (Return_Id, Return_out, Return_book_name, Return_date, lbn_book2) VALUE...	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0	0.000 sec
28	23:26:33	select * from ReturnStatus LIMIT 0.1000	10 row(s) returned	0.000 sec / 0.000 sec

The screenshot shows the MySQL Workbench interface with the 'SQL File 5' editor open. The editor contains SQL code to create a table named 'Employee' with columns 'Emp_Id' (PRIMARY KEY), 'Emp_name' (VARCHAR(100)), 'Position' (VARCHAR(50)), 'Salary' (DECIMAL(10, 2)), and 'Branch_no' (INT). It also includes a 'FOREIGN KEY (Branch_no) REFERENCES Branch(Branch_no)' constraint. The 'INSERT INTO Employee' statement is followed by 10 rows of data. The 'Output' pane at the bottom shows the execution results of the queries, including the 'CREATE TABLE Employee' and 'INSERT INTO Employee' statements, with a message indicating that 10 rows were affected and 10 duplicates were found.

```
22 desc table branch;
23 select * from branch;
24 CREATE TABLE Employee (
25     Emp_Id INT PRIMARY KEY,
26     Emp_name VARCHAR(100),
27     Position VARCHAR(50),
28     Salary DECIMAL(10, 2),
29     Branch_no INT,
30     FOREIGN KEY (Branch_no) REFERENCES Branch(Branch_no)
31 );
32 -- Insert data into Employee table
33 INSERT INTO Employee (Emp_Id, Emp_name, Position, Salary, Branch_no) VALUES
34 (1, 'Smitha Nazeer', 'Manager', 60000.00, 1),
35 (2, 'Nazeer A A', 'Assistant', 45000.00, 1),
36 (3, 'Nisima Raneesh', 'Manager', 65000.00, 2),
37 (4, 'Salman Rasheed', 'Assistant', 42000.00, 2),
38 (5, 'Aysha A', 'Manager', 70000.00, 3),
39 (6, 'Amarjith A', 'Assistant', 46000.00, 3),
40 (7, 'Asiya Ziad', 'Manager', 62000.00, 4),
41 (8, 'Sujith B S', 'Assistant', 43000.00, 4),
42 (9, 'Hamidha Kassim', 'Manager', 68000.00, 5),
43 (10, 'Raizan Hanzal', 'Assistant', 44000.00, 5);
44 select * from employee;
45 CREATE TABLE Books (
46     ISBN VARCHAR(20) PRIMARY KEY,
47     Book_title VARCHAR(255),
```

#	Time	Action	Message	Duration / Fetch
25	23:20:05	select * from IssueStatus LIMIT 0.1000	10 row(s) returned	0.016 sec / 0.000 sec
26	23:20:15	CREATE TABLE ReturnStatus (Return_Id INT PRIMARY KEY, Return_out INT, Return_book_name...	0 row(s) affected	0.032 sec
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MySQL Workbench

Local instance MySQL80 x MySQL Model x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

- company
 - Tables
 - Views
 - Stored Procedures
 - Functions
- country
- keralaworkersdb
- product
- sales
- sys
- world

Administration Schemas Information

No object selected

Object Info Session

Query Completed

25°C Partly cloudy

SQL File 9

```

43 (10, 'Rishan Menzel', 'Assistant', 44000.00, 5);
44 select * from employee;
45 CREATE TABLE Books (
46     ISBN VARCHAR(20) PRIMARY KEY,
47     Book_title VARCHAR(255),
48     Category VARCHAR(50),
49     Rental_Price DECIMAL(10, 2),
50     Status ENUM('yes', 'no'),
51     Author VARCHAR(100),
52     Publisher VARCHAR(100)
53 );
54 drop table books;
55 -- Insert data into Books table
56 INSERT INTO Books (ISBN, Book_title, Category, Rental_Price, Status, Author, Publisher) VALUES
57 ('9780061120084', 'To Kill a Mockingbird', 'Fiction', 25.00, 'Yes', 'Harper Lee', 'J.B. Lippincott'),
58 ('9780452264234', '1984', 'Dystopian', 20.00, 'no', 'George Orwell', 'Secker & Warburg'),
59 ('9781594202510', 'The Road', 'Fiction', 15.00, 'Yes', 'Cormac McCarthy', 'Vintage Books'),
60 ('9781402894626', 'The Immortal Life of Henrietta Lacks', 'Non-Fiction', 54.50, 'No', 'Rebecca Skloot', 'Crown Publishing'),
61 ('9780071808952', 'The Lean Startup', 'Business', 86.00, 'Yes', 'Eric Ries', 'Crown Business'),
62 ('9781476791803', 'The Goldfinch', 'Fiction', 85.50, 'No', 'Donna Tartt', 'Little, Brown and Company'),
63 ('9780743273565', 'The Da Vinci Code', 'Thriller', 44.00, 'Yes', 'Dan Brown', 'Doubleday'),
64 ('9781581176816', 'Where the Crawdads Sing', 'Fiction', 45.00, 'yes', 'Delia Owens', 'G.P. Putnam's Sons'),
65 ('9780679642310', 'A Brief History of Time', 'Science', 150.00, 'No', 'Stephen Hawking', 'Bantam Books'),
66 ('9780743273572', 'Blink', 'Non-Fiction', 50.00, 'Yes', 'Malcolm Gladwell', 'Little, Brown and Company');
67 select * from books;
68 CREATE TABLE Customer (

```

Output

Action Output

#	Time	Action	Message	Duration / Fetch
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No object selected

Object Info Session

Query Completed

25°C Partly cloudy

SQL File 9

```

67 CREATE TABLE Customer (
68     Customer_Id INT PRIMARY KEY,
69     Customer_name VARCHAR(100),
70     Customer_address VARCHAR(255),
71     Reg_date DATE
72 );
73 -- Insert data into Customer table
74 INSERT INTO Customer (Customer_Id, Customer_name, Customer_address, Reg_date) VALUES
75 (1, 'Nizzam Hazeer', 'Areekodath House, Ernakulam', '2019-06-15'),
76 (2, 'Anusha Sunil', 'Poolakandy house, Kozhikode', '2021-02-01'),
77 (3, 'Aravind S', 'Tharavad, Palakkad', '2019-08-22'),
78 (4, 'John cena', 'Kunnumal, Thrissur', '2018-01-10'),
79 (5, 'David Beckham', 'Kadaloram house, Malappuram', '2021-08-05'),
80 (6, 'Sinan H', 'Kaatile house, Kollam', '2019-07-01'),
81 (7, 'Jaison', 'Mavelli house, Trivandrum', '2022-10-23'),
82 (8, 'Samson Keni', 'Sahrudaya House, Ernakulam', '2021-11-30'),
83 (9, 'Sarosh Sam', 'Malayil House, Kannur', '2021-08-05'),
84 (10, 'Sukunan H', 'Thenvid, Idukki', '2022-04-10');
85 select * from customer;
86 CREATE TABLE IssueStatus (
87     Issue_Id INT PRIMARY KEY,
88     Issued_cust INT,
89     Issue_date DATE,
90     Isbn_book VARCHAR(13),
91     FOREIGN KEY (Issued_cust) REFERENCES Customer(Customer_Id),
92     FOREIGN KEY (Isbn_book) REFERENCES Books(ISBN)

```

Output

Action Output

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Administration Schemas Information

No object selected

SQL File 5

```

85 select * from customer;
86 CREATE TABLE IssueStatus (
87     Issue_Id INT PRIMARY KEY,
88     Issued_cust INT,
89     Issue_date DATE,
90     Isbn_book VARCHAR(13),
91     FOREIGN KEY (Issued_cust) REFERENCES Customer(Customer_Id),
92     FOREIGN KEY (Isbn_book) REFERENCES Books(ISBN)
93 );
94 -- Insert data into IssueStatus table
95 INSERT INTO IssueStatus (Issue_Id, Issued_cust, Issue_date, Isbn_book) VALUES
96 (1, 1, '2023-06-15', '9780061120084'),
97 (2, 2, '2023-07-01', '9780452284234'),
98 (3, 3, '2023-05-20', '9781594202510'),
99 (4, 4, '2023-08-10', '9781402894626'),
100 (5, 5, '2023-06-25', '9780071800552'),
101 (6, 6, '2023-07-30', '9781476791803'),
102 (7, 7, '2023-06-10', '9780743273565'),
103 (8, 8, '2023-05-15', '9781501176816'),
104 (9, 9, '2023-07-22', '9780679642310'),
105 (10, 10, '2023-06-05', '9780743273572');
106 select * from IssueStatus;
107 CREATE TABLE ReturnStatus (
108     Return_Id INT PRIMARY KEY,
109     Return_cust INT,
110     Return_book_name VARCHAR(255),
111     Return_date DATE,
112     Isbn_book2 VARCHAR(13),
113     FOREIGN KEY (Return_cust) REFERENCES Customer(Customer_Id),
114     FOREIGN KEY (Isbn_book2) REFERENCES Books(ISBN)
115 );
116 -- Insert data into ReturnStatus table
117 INSERT INTO ReturnStatus (Return_Id, Return_cust, Return_book_name, Return_date, Isbn_book2) VALUES
118 (1, 1, 'To Kill a Mockingbird', '2023-07-01', '9780061120084'),
119 (2, 2, '1984', '2023-07-20', '9780452284234'),
120 (3, 3, 'The Road', '2023-06-30', '9781594202510'),
121 (4, 4, 'The Immortal Life of Henrietta Lacks', '2023-08-15', '9781402894626'),
122 (5, 5, 'The Lean Startup', '2023-07-10', '9780071800552'),
123 (6, 6, 'The Goldfinch', '2023-08-01', '9781476791803'),
124 (7, 7, 'The Da Vinci Code', '2023-06-25', '9780743273565'),
125 (8, 8, 'Where the Crawdads Sing', '2023-06-15', '9781501176816'),
126 (9, 9, 'A Brief History of Time', '2023-07-10', '9780679642310'),
127 (10, 10, 'Blink', '2023-06-12', '9780743273572');
128 select * from ReturnStatus;
129 -- 1.Retrieve the book title, category, and rental price of all available books.
130 SELECT Book_title, Category, Rental_Price FROM Books WHERE Status = 'yes';
131 -- 2.List the employee names and their respective salaries in descending order of salary.

```

Output

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Query Completed

25°C Partly cloudy

23:29 31-08-2024

MySQL Workbench

Local instance MySQL80 x MySQL Model x

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Administration Schemas Information

No object selected

SQL File 5

```

106 select * from IssueStatus;
107 CREATE TABLE ReturnStatus (
108     Return_Id INT PRIMARY KEY,
109     Return_cust INT,
110     Return_book_name VARCHAR(255),
111     Return_date DATE,
112     Isbn_book2 VARCHAR(13),
113     FOREIGN KEY (Return_cust) REFERENCES Customer(Customer_Id),
114     FOREIGN KEY (Isbn_book2) REFERENCES Books(ISBN)
115 );
116 -- Insert data into ReturnStatus table
117 INSERT INTO ReturnStatus (Return_Id, Return_cust, Return_book_name, Return_date, Isbn_book2) VALUES
118 (1, 1, 'To Kill a Mockingbird', '2023-07-01', '9780061120084'),
119 (2, 2, '1984', '2023-07-20', '9780452284234'),
120 (3, 3, 'The Road', '2023-06-30', '9781594202510'),
121 (4, 4, 'The Immortal Life of Henrietta Lacks', '2023-08-15', '9781402894626'),
122 (5, 5, 'The Lean Startup', '2023-07-10', '9780071800552'),
123 (6, 6, 'The Goldfinch', '2023-08-01', '9781476791803'),
124 (7, 7, 'The Da Vinci Code', '2023-06-25', '9780743273565'),
125 (8, 8, 'Where the Crawdads Sing', '2023-06-15', '9781501176816'),
126 (9, 9, 'A Brief History of Time', '2023-07-10', '9780679642310'),
127 (10, 10, 'Blink', '2023-06-12', '9780743273572');
128 select * from ReturnStatus;
129 -- 1.Retrieve the book title, category, and rental price of all available books.
130 SELECT Book_title, Category, Rental_Price FROM Books WHERE Status = 'yes';
131 -- 2.List the employee names and their respective salaries in descending order of salary.

```

Output

Action Output

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Query Completed

26°C Partly cloudy

23:30 31-08-2024

MySQL Workbench

Local instance MySQL80 x MySQL Model x

File Edit View Query Database Server Tools Scripting Help

Navigator

SQL File 5: x

Limit to 1000 rows

128 select * from ReturnStatus;

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

130 SELECT Book_title, Category, Rental_Price FROM Books WHERE Status = 'yes';

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

132 SELECT Emp_name, Salary FROM Employee ORDER BY Salary DESC;

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

134 SELECT b.Book_title, c.Customer_name FROM IssueStatus i

135 JOIN Books b ON i.Isbn_book = b.ISBN

136 JOIN Customer c ON i.Issued_cust = c.Customer_Id;

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

138 SELECT Category, COUNT(*) AS Total_Count FROM Books GROUP BY Category;

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

140 SELECT Emp_name, Position FROM Employee WHERE Salary > 50000;

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

142 SELECT c.Customer_name FROM Customer c LEFT JOIN IssueStatus i ON c.Customer_Id = i.Issued_cust

143 WHERE c.Reg_date < '2022-01-01' AND i.Issued_cust IS NULL;

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

145 SELECT Branch_no, COUNT(*) AS Total_Employees FROM Employee GROUP BY Branch_no;

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

147 SELECT DISTINCT c.Customer_name FROM IssueStatus i JOIN Customer c ON i.Issued_cust = c.Customer_Id

148 WHERE i.Issue_date BETWEEN '2023-06-01' AND '2023-06-30';

149 -- 9.Retrieve book_title from the book table containing history.

150 SELECT DISTINCT b.Book_title FROM Books b JOIN IssueStatus i ON b.ISBN = i.Isbn_book

151 UNION

152 SELECT DISTINCT b.Book_title

153 FROM Books b

Output

Action Output

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28	23:26:33	select * from ReturnStatus LIMIT 0, 1000	10 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

Query Completed

26°C Partly cloudy

Search

23:30 31-08-2024

MySQL Workbench

Local instance MySQL80 x MySQL Model x

File Edit View Query Database Server Tools Scripting Help

Navigator

SQL File 5: x

Limit to 1000 rows

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

142 SELECT c.Customer_name FROM Customer c LEFT JOIN IssueStatus i ON c.Customer_Id = i.Issued_cust

143 WHERE c.Reg_date < '2022-01-01' AND i.Issued_cust IS NULL;

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

145 SELECT Branch_no, COUNT(*) AS Total_Employees FROM Employee GROUP BY Branch_no;

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

147 SELECT DISTINCT c.Customer_name FROM IssueStatus i JOIN Customer c ON i.Issued_cust = c.Customer_Id

148 WHERE i.Issue_date BETWEEN '2023-06-01' AND '2023-06-30';

149 -- 9.Retrieve book_title from the book table containing history.

150 SELECT DISTINCT b.Book_title FROM Books b JOIN IssueStatus i ON b.ISBN = i.Isbn_book

151 UNION

152 SELECT DISTINCT b.Book_title

153 FROM Books b

154 JOIN ReturnStatus r ON b.ISBN = r.Isbn_book2;

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

156 SELECT Branch_no, COUNT(*) AS Total_Employees FROM Employee GROUP BY Branch_no

157 HAVING COUNT(*) > 5;

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

159 SELECT e.Emp_name, b.Branch_address FROM Employee e JOIN Branch b ON e.Branch_no = b.Branch_no

160 WHERE e.Position = 'Manager';

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

162 SELECT DISTINCT c.Customer_name FROM IssueStatus i JOIN Books b ON i.Isbn_book = b.ISBN

163 JOIN Customer c ON i.Issued_cust = c.Customer_Id

164 WHERE b.Rental_Price > 25;

165

Output

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Search

23:31 31-08-2024