

1. Table Creation:

This screenshot shows the MySQL Workbench interface with the 'VENNILA HACKATHON' database selected. The 'Schemas' pane on the left shows the 'advancedlibrary' schema. The main editor displays the SQL code to create the 'Books' table. The 'Output' pane at the bottom shows the execution results.

```
1 USE advancedlibrary;
2 CREATE TABLE Books (
3   BookID INT PRIMARY KEY AUTO_INCREMENT,
4   Title VARCHAR(255) NOT NULL,
5   Author VARCHAR(100),
6   Publisher VARCHAR(100),
7   ISBN VARCHAR(20) UNIQUE,
8   Genre VARCHAR(50),
9   Language VARCHAR(30),
10  TotalCopies INT NOT NULL CHECK (TotalCopies >= 0),
11  AvailableCopies INT NOT NULL CHECK (AvailableCopies >= 0),
12  CreatedAt DATETIME DEFAULT CURRENT_TIMESTAMP,
13  UpdatedAt DATETIME DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP,
14 );
```

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

#	Time	Action	Message	Duration / Fetch
1	09:22:55	USE advancedlibrary	0 row(s) affected	0.000 sec
2	09:23:50	CREATE TABLE Books (BookID INT PRIMARY KEY AUTO_INCREMENT, Title VARCHAR(255) NOT NULL, ...	0 row(s) affected	0.016 sec

This screenshot shows the MySQL Workbench interface with the 'VENNILA HACKATHON' database selected. The 'Schemas' pane on the left shows the 'advancedlibrary' schema. The main editor displays the SQL code to create the 'Members' table. The 'Output' pane at the bottom shows the execution results.

```
11 AvailableCopies INT NOT NULL CHECK (AvailableCopies >= 0),
12 C: Execute the statement under the keyboard cursor. JUMP,
13 UpdatedAt DATETIME DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP,
14 );
15 CREATE TABLE Members (
16   MemberID INT NOT NULL AUTO_INCREMENT,
17   FullName VARCHAR(100) NOT NULL,
18   Email VARCHAR(100) UNIQUE,
19   PhoneNumber VARCHAR(20),
20   MembershipDate DATE DEFAULT (CURRENT_DATE),
21   AddressLine1 VARCHAR(150),
22   AddressLine2 VARCHAR(150),
23   City VARCHAR(50),
24   State VARCHAR(50),
25   PostalCode VARCHAR(10),
26   CreatedAt DATETIME DEFAULT CURRENT_TIMESTAMP,
27   UpdatedAt DATETIME DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP,
28   PRIMARY KEY (MemberID)
29 );
```

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

#	Time	Action	Message	Duration / Fetch
1	09:22:55	USE advancedlibrary	0 row(s) affected	0.000 sec
2	09:23:50	CREATE TABLE Books (BookID INT PRIMARY KEY AUTO_INCREMENT, Title VARCHAR(255) NOT NULL, ...	0 row(s) affected	0.016 sec
3	09:26:26	CREATE TABLE Members (MemberID INT NOT NULL AUTO_INCREMENT, FullName VARCHAR(100) NOT NULL, ...	0 row(s) affected	0.031 sec

MySQL Workbench

Local instance MySQL52 - W...

File Edit View Query Database Server Tools Scripting Help

VENNILA HACKATHON

Limit to 1000 rows

SQLAdditions

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

SCHEMAS

Filter objects

advancedlibrary

Tables

Views

Stored Procedures

Functions

library

sakila

sys

Administration Schemas

Information

Schema: advancedlibrary

Object Info Session

```
26 CreatedAt DATETIME DEFAULT CURRENT_TIMESTAMP,
27 UpdatedAt DATETIME DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP,
28 PRIMARY KEY (MemberID)
29 );
30 CREATE TABLE Transactions (
31 TransactionID INT NOT NULL AUTO_INCREMENT,
32 BookID INT NOT NULL,
33 MemberID INT NOT NULL,
34 IssueDate DATE NOT NULL,
35 DueDate DATE NOT NULL,
36 ReturnDate DATE,
37 Fine DECIMAL(5,2) DEFAULT 0.00,
38 Status ENUM('Issued', 'Returned', 'Overdue') DEFAULT 'Issued',
39 CreatedAt DATETIME DEFAULT CURRENT_TIMESTAMP,
40 UpdatedAt DATETIME DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP,
41 PRIMARY KEY (TransactionID),
42 FOREIGN KEY (BookID) REFERENCES Books(BookID) ON DELETE CASCADE,
43 FOREIGN KEY (MemberID) REFERENCES Members(MemberID) ON DELETE CASCADE,
44 );
45
```

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	09:22:55	USE advancedlibrary	0 row(s) affected	0.000 sec
2	09:23:50	CREATE TABLE Books (BookID INT PRIMARY KEY AUTO_INCREMENT, Title VARCHAR(255) NOT NULL ...	0 row(s) affected	0.016 sec
3	09:26:26	CREATE TABLE Members (MemberID INT NOT NULL AUTO_INCREMENT, FullName VARCHAR(100) NOT ...	0 row(s) affected	0.031 sec
4	09:27:32	CREATE TABLE Transactions (TransactionID INT NOT NULL AUTO_INCREMENT, BookID INT NOT NULL ...	0 row(s) affected	0.031 sec

Object Info Session

Search

ENG IN 09:27 07-04-2025

MySQL Workbench

Local instance MySQL52 - W...

File Edit View Query Database Server Tools Scripting Help

VENNILA HACKATHON

Limit to 1000 rows

SQLAdditions

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

SCHEMAS

Filter objects

advancedlibrary

Tables

Views

Stored Procedures

Functions

library

sakila

sys

Administration Schemas

Information

Schema: advancedlibrary

Object Info Session

```
42 FOREIGN KEY (BookID) REFERENCES Books(BookID) ON DELETE CASCADE
43 );
44 EXECUTE the statement under the keyboard cursor =>ps(MemberID) ON DELETE
45 );
46 CREATE TABLE BookOrders (
47 OrderID INT NOT NULL AUTO_INCREMENT,
48 MemberID INT NOT NULL,
49 OrderDate DATETIME DEFAULT CURRENT_TIMESTAMP,
50 ExpectedReturnDate DATE,
51 ActualReturnDate DATE,
52 Status ENUM('Issued', 'Returned', 'Overdue', 'Cancelled') DEFAULT 'Issued',
53 PaymentMethod ENUM('Cash', 'Card', 'UPI', 'Wallet') DEFAULT 'Cash',
54 FineAmount DECIMAL(10,2) DEFAULT 0.00,
55 Notes TEXT,
56 CreatedAt DATETIME DEFAULT CURRENT_TIMESTAMP,
57 UpdatedAt DATETIME DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP,
58 PRIMARY KEY (OrderID),
59 FOREIGN KEY (MemberID) REFERENCES Members(MemberID) ON DELETE CASCADE,
60 CHECK (FineAmount >= 0)
61 );
62
```

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	09:22:55	USE advancedlibrary	0 row(s) affected	0.000 sec
2	09:23:50	CREATE TABLE Books (BookID INT PRIMARY KEY AUTO_INCREMENT, Title VARCHAR(255) NOT NULL ...	0 row(s) affected	0.016 sec
3	09:26:26	CREATE TABLE Members (MemberID INT NOT NULL AUTO_INCREMENT, FullName VARCHAR(100) NOT ...	0 row(s) affected	0.031 sec
4	09:27:32	CREATE TABLE Transactions (TransactionID INT NOT NULL AUTO_INCREMENT, BookID INT NOT NULL ...	0 row(s) affected	0.031 sec
5	09:28:37	CREATE TABLE BookOrders (OrderID INT NOT NULL AUTO_INCREMENT, MemberID INT NOT NULL ...	0 row(s) affected	0.016 sec

Object Info Session

Search

ENG IN 09:28 07-04-2025

MySQL Workbench

Local instance MySQL82 - W...

File Edit View Query Database Server Tools Scripting Help

Navigator

VENNILA HACKATHON

Limit to 1000 rows

SQLAdditions

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

```

76 CHECK (RentalPrice >= 0)
77 );
78 CREATE TABLE BookOrderItems (
79   OrderItemID INT NOT NULL AUTO_INCREMENT,
80   OrderID INT NOT NULL,
81   BookID INT NOT NULL,
82   Quantity INT DEFAULT 1,
83   RentalPrice DECIMAL(10,2) NOT NULL,
84   TotalPrice DECIMAL(10,2) GENERATED ALWAYS AS (Quantity * Renta
85   SpecialNotes TEXT,
86   IsReturned BOOLEAN DEFAULT FALSE,
87   CreatedAt DATETIME DEFAULT CURRENT_TIMESTAMP,
88   UpdatedAt DATETIME DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT
89   PRIMARY KEY (OrderItemID),
90   FOREIGN KEY (OrderID) REFERENCES BookOrders(OrderID) ON DELETE
91   FOREIGN KEY (BookID) REFERENCES Books(BookID) ON DELETE CASCADE
92   CHECK (Quantity > 0),
93   CHECK (RentalPrice >= 0)
94 );
95

```

Schema: advancedlibrary

Output

#	Time	Action	Message	Duration / Fetch
2	09:23:50	CREATE TABLE Books (BookID INT PRIMARY KEY AUTO_INCREMENT, Title VARCHAR(255) NOT NULL, ...	0 row(s) affected	0.016 sec
3	09:26:26	CREATE TABLE Members (MemberID INT NOT NULL AUTO_INCREMENT, FullName VARCHAR(100) NO...	0 row(s) affected	0.031 sec
4	09:27:32	CREATE TABLE Transactions (TransactionID INT NOT NULL AUTO_INCREMENT, BookID INT NOT NULL...	0 row(s) affected	0.031 sec
5	09:28:37	CREATE TABLE BookOrders (OrderID INT NOT NULL AUTO_INCREMENT, MemberID INT NOT NULL, ...	0 row(s) affected	0.016 sec
6	09:30:04	CREATE TABLE BookOrderItems (OrderItemID INT NOT NULL AUTO_INCREMENT, OrderID INT NOT NU...	0 row(s) affected	0.015 sec

Object Info Session

Search

ENG IN 09:30 07-04-2025

2. Sample Data Insertion:

MySQL Workbench

Local instance MySQL82 - W...

File Edit View Query Database Server Tools Scripting Help

Navigator

VENNILA HACKATHON

Limit to 1000 rows

SQLAdditions

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

```

1 USE advancedlibrary;
2 INSERT INTO Books (Title, Author, Publisher, ISBN, Genre, Language
3 VALUES
4 ('The Alchemist', 'Paulo Coelho', 'HarperCollins', '97800061122415'
5 ('Atomic Habits', 'James Clear', 'Penguin', '9780735211292', 'Self
6 ('Wings of Fire', 'A.P.J. Abdul Kalam', 'Universities Press', '978
7 ('Zero to One', 'Peter Thiel', 'Crown Business', '9780804130208',
8 ('Think and Grow Rich', 'Napoleon Hill', 'The Ralston Society', '9
9 INSERT INTO Members (FullName, Email, PhoneNumber, AddressLine1, C
10 VALUES
11 ('Anjali Sharma', 'anjali@example.com', '9876543210', '12 MG Road'
12 ('Rahul Verma', 'rahulv@example.com', '9123456789', '23 Park Avenu
13 ('Priya Kumar', 'priyak@example.com', '9988776655', '45 Gandhi Str
14 ('Karan Mehta', 'karanm@example.com', '9345678912', '67 Ring Road'
15 ('Sneha Iyer', 'sneha@example.com', '9871234567', '89 Lotus Enclav
16
17

```

Schema: advancedlibrary

Output

#	Time	Action	Message	Duration / Fetch
4	09:27:32	CREATE TABLE Transactions (TransactionID INT NOT NULL AUTO_INCREMENT, BookID INT NOT NULL...	0 row(s) affected	0.031 sec
5	09:28:37	CREATE TABLE BookOrders (OrderID INT NOT NULL AUTO_INCREMENT, MemberID INT NOT NULL, ...	0 row(s) affected	0.016 sec
6	09:30:04	CREATE TABLE BookOrderItems (OrderItemID INT NOT NULL AUTO_INCREMENT, OrderID INT NOT NU...	0 row(s) affected	0.015 sec
7	09:37:59	INSERT INTO Books (Title, Author, Publisher, ISBN, Genre, Language, TotalCopies, AvailableCopies) VALUES (T...	5 row(s) affected Records: 5 Duplicates: 0 Warnings: 0	0.015 sec
8	09:38:22	INSERT INTO Members (FullName, Email, PhoneNumber, AddressLine1, City, State, PostalCode) VALUES (Anjal...	5 row(s) affected Records: 5 Duplicates: 0 Warnings: 0	0.016 sec

Object Info Session

Search

Very humid Now

ENG IN 09:38 07-04-2025

MySQL Workbench

Local instance MySQL92 - W...

File Edit View Query Database Server Tools Scripting Help

Navigator

VENNILA HACKATHON

Limit to 1000 rows

SQLAdditions

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Context Help Snippets

Schema: advancedlibrary

Object Info Session

Very humid Now

Search

ENG IN

09:39 07-04-2025

```
11 ('Anjali Sharma', 'anjali@example.com', '9876543210', '12 MG Road')
12 ('Rahul Verma', 'rahul@example.com', '9123456789', '23 Park Avenue')
13 ('Priya Kumar', 'priya@example.com', '9988776655', '45 Gandhi Str')
14 ('Karan Mehta', 'karan@example.com', '9345678912', '67 Ring Road')
15 ('Sneha Iyer', 'sneha@example.com', '9871234567', '89 Lotus Enclav')
16 INSERT INTO Transactions (BookID, MemberID, IssueDate, DueDate, Re
17 VALUES
18 (1, 1, '2025-04-01', '2025-04-10', NULL, 0.00, 'Issued'),
19 (2, 2, '2025-03-25', '2025-04-04', '2025-04-03', 0.00, 'Returned')
20 (3, 3, '2025-03-28', '2025-04-07', NULL, 0.00, 'Overdue'),
21 (4, 4, '2025-04-02', '2025-04-12', NULL, 0.00, 'Issued'),
22 (5, 5, '2025-03-30', '2025-04-08', '2025-04-08', 0.00, 'Returned')
23 INSERT INTO BookOrders (MemberID, OrderDate, ExpectedReturnDate, A
24 VALUES
25 (1, '2025-04-01 10:00:00', '2025-04-10', NULL, 'Issued', 'Card', 0
26 (2, '2025-03-25 14:30:00', '2025-04-04', '2025-04-03', 'Returned',
27 (3, '2025-03-28 09:15:00', '2025-04-07', NULL, 'Overdue', 'Cash',
28 (4, '2025-04-02 11:45:00', '2025-04-12', NULL, 'Issued', 'Card', 0
29 (5, '2025-03-30 13:00:00', '2025-04-08', '2025-04-08', 'Returned',
30
```

#	Time	Action	Message	Duration / Fetch
6	09:30:04	CREATE TABLE BookOrderItems (OrderItemID INT NOT NULL AUTO_INCREMENT, OrderID INT NOT NULL, BookID INT NOT NULL, Quantity INT NOT NULL, RentalPrice DECIMAL(10,2) NOT NULL, SpecialNotes TEXT, IsReturned BOOLEAN) ENGINE=InnoDB	0 row(s) affected	0.015 sec
7	09:37:59	INSERT INTO Books (Title, Author, Publisher, ISBN, Genre, Language, TotalCopies, AvailableCopies) VALUES (1, 'The Great Gatsby', 'Scribner', '9780743273565', 'Fiction', 'English', 10, 5)	5 row(s) affected Records: 5 Duplicates: 0 Warnings: 0	0.015 sec
8	09:38:22	INSERT INTO Members (FullName, Email, PhoneNumber, AddressLine1, City, State, PostalCode) VALUES (Anjali Sharma, 'anjali@example.com', '9876543210', '12 MG Road', 'Bangalore', 'KA', '560001')	5 row(s) affected Records: 5 Duplicates: 0 Warnings: 0	0.016 sec
9	09:38:53	INSERT INTO Transactions (BookID, MemberID, IssueDate, DueDate, ReturnDate, Fine, Status) VALUES (1, 1, '2025-04-01', '2025-04-10', NULL, 0.00, 'Issued')	5 row(s) affected Records: 5 Duplicates: 0 Warnings: 0	0.000 sec
10	09:39:17	INSERT INTO BookOrders (MemberID, OrderDate, ExpectedReturnDate, ActualReturnDate, Status, PaymentMethod) VALUES (1, '2025-04-01 10:00:00', '2025-04-10', NULL, 'Issued', 'Card')	5 row(s) affected Records: 5 Duplicates: 0 Warnings: 0	0.016 sec

MySQL Workbench

Local instance MySQL92 - W...

File Edit View Query Database Server Tools Scripting Help

Navigator

VENNILA HACKATHON

Limit to 1000 rows

SQLAdditions

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Context Help Snippets

Schema: advancedlibrary

Object Info Session

Very humid Now

Search

ENG IN

09:39 07-04-2025

```
18 (1, 1, '2025-04-01', '2025-04-10', NULL, 0.00, 'Issued'),
19 (2, 2, '2025-03-25', '2025-04-04', '2025-04-03', 0.00, 'Returned')
20 (3, 3, '2025-03-28', '2025-04-07', NULL, 0.00, 'Overdue'),
21 (4, 4, '2025-04-02', '2025-04-12', NULL, 0.00, 'Issued'),
22 (5, 5, '2025-03-30', '2025-04-08', '2025-04-08', 0.00, 'Returned')
23 INSERT INTO BookOrders (MemberID, OrderDate, ExpectedReturnDate, A
24 VALUES
25 (1, '2025-04-01 10:00:00', '2025-04-10', NULL, 'Issued', 'Card', 0
26 (2, '2025-03-25 14:30:00', '2025-04-04', '2025-04-03', 'Returned',
27 (3, '2025-03-28 09:15:00', '2025-04-07', NULL, 'Overdue', 'Cash',
28 (4, '2025-04-02 11:45:00', '2025-04-12', NULL, 'Issued', 'Card', 0
29 (5, '2025-03-30 13:00:00', '2025-04-08', '2025-04-08', 'Returned',
30 INSERT INTO BookOrderItems (OrderID, BookID, Quantity, RentalPrice
31 VALUES
32 (1, 1, 1, 50.00, 'Hardcover preferred', FALSE),
33 (2, 2, 2, 40.00, '', TRUE),
34 (3, 3, 1, 30.00, 'Please wrap', FALSE),
35 (4, 4, 1, 45.00, '', FALSE),
36 (5, 5, 1, 35.00, '', TRUE);
37
38
```

#	Time	Action	Message	Duration / Fetch
7	09:37:59	INSERT INTO Books (Title, Author, Publisher, ISBN, Genre, Language, TotalCopies, AvailableCopies) VALUES (1, 'The Great Gatsby', 'Scribner', '9780743273565', 'Fiction', 'English', 10, 5)	5 row(s) affected Records: 5 Duplicates: 0 Warnings: 0	0.015 sec
8	09:38:22	INSERT INTO Members (FullName, Email, PhoneNumber, AddressLine1, City, State, PostalCode) VALUES (Anjali Sharma, 'anjali@example.com', '9876543210', '12 MG Road', 'Bangalore', 'KA', '560001')	5 row(s) affected Records: 5 Duplicates: 0 Warnings: 0	0.016 sec
9	09:38:53	INSERT INTO Transactions (BookID, MemberID, IssueDate, DueDate, ReturnDate, Fine, Status) VALUES (1, 1, '2025-04-01', '2025-04-10', NULL, 0.00, 'Issued')	5 row(s) affected Records: 5 Duplicates: 0 Warnings: 0	0.000 sec
10	09:39:17	INSERT INTO BookOrders (MemberID, OrderDate, ExpectedReturnDate, ActualReturnDate, Status, PaymentMethod) VALUES (1, '2025-04-01 10:00:00', '2025-04-10', NULL, 'Issued', 'Card')	5 row(s) affected Records: 5 Duplicates: 0 Warnings: 0	0.016 sec
11	09:39:37	INSERT INTO BookOrderItems (OrderID, BookID, Quantity, RentalPrice, SpecialNotes, IsReturned) VALUES (1, 1, 1, 50.00, 'Hardcover preferred', FALSE)	5 row(s) affected Records: 5 Duplicates: 0 Warnings: 0	0.016 sec

3. Data Retrieval Queries:

1. List All Books by a Specific Genre

The screenshot shows the MySQL Workbench interface. The SQL editor contains the following query:

```
(2, 2, 2, 40.00, '', TRUE),  
(3, 3, 3, 40.00, '', TRUE),  
(4, 4, 1, 45.00, '', FALSE),  
(5, 5, 1, 35.00, '', TRUE);  
SELECT * FROM Books  
WHERE Genre = 'Fiction';
```

The Result Grid shows the following data:

BookID	Title	Author	Publisher	ISBN	Genre
1	The Alchemist	Paulo Coelho	HarperCollins	9780061122415	Fiction

The Output pane shows the execution log with the following messages:

```
7 09:37:59 INSERT INTO Books (Title, Author, Publisher, ISBN, Genre, Language, TotalCopies, AvailableCopies) VALUES (...)  
8 09:38:22 INSERT INTO Members (FullName, Email, PhoneNumber, AddressLine1, City, State, PostalCode) VALUES (...)  
9 09:38:53 INSERT INTO Transactions (BookID, MemberID, IssueDate, DueDate, ReturnDate, Fine, Status) VALUES (...)  
10 09:39:17 INSERT INTO BookOrders (MemberID, OrderDate, ExpectedReturnDate, ActualReturnDate, Status, Payment,...)  
11 09:39:37 INSERT INTO BookOrderItems (OrderID, BookID, Quantity, RentalPrice, SpecialNotes, IsReturned) VALUES (...)  
12 09:46:02 SELECT * FROM Books WHERE Genre = 'Fiction' LIMIT 0, 1000  
1 row(s) returned
```

2. Count of Books by Each Genre

The screenshot shows the MySQL Workbench interface. The SQL editor contains the following query:

```
(5, 5, 1, 35.00, '', TRUE);  
SELECT * FROM Books  
WHERE Genre = 'Fiction';  
SELECT Genre, COUNT(*) AS TotalBooks  
FROM Books  
GROUP BY Genre;
```

The Result Grid shows the following data:

Genre	TotalBooks
Fiction	1
Self-help	1
Autobiography	1
Business	1
Motivation	1

The Output pane shows the execution log with the following messages:

```
8 09:38:22 INSERT INTO Members (FullName, Email, PhoneNumber, AddressLine1, City, State, PostalCode) VALUES (...)  
9 09:38:53 INSERT INTO Transactions (BookID, MemberID, IssueDate, DueDate, ReturnDate, Fine, Status) VALUES (...)  
10 09:39:17 INSERT INTO BookOrders (MemberID, OrderDate, ExpectedReturnDate, ActualReturnDate, Status, Payment,...)  
11 09:39:37 INSERT INTO BookOrderItems (OrderID, BookID, Quantity, RentalPrice, SpecialNotes, IsReturned) VALUES (...)  
12 09:46:02 SELECT * FROM Books WHERE Genre = 'Fiction' LIMIT 0, 1000  
1 row(s) returned  
13 09:46:35 SELECT Genre, COUNT(*) AS TotalBooks FROM Books GROUP BY Genre LIMIT 0, 1000  
5 row(s) returned
```

3. List Books of a Genre That Are Currently Available

The screenshot shows the MySQL Workbench interface. The SQL editor contains the following query:

```
39 SELECT Genre, COUNT(*) AS TotalBooks
40 FROM Books
41 GROUP BY Genre;
42 SELECT *
43 FROM Books
44 WHERE Genre = 'Self-help' AND AvailableCopies > 0;
```

The Result Grid shows the following data:

BookID	Title	Author	Publisher	ISBN	Genre	Language
2	Atomic Habits	James Clear	Penguin	9780735211292	Self-help	Engl

The Output pane shows the execution log with the following messages:

- 9 09:38:53 INSERT INTO Transactions (BookID, MemberID, IssueDate, DueDate, ReturnDate, Fine, Status) VALUES (1, ... 5 row(s) affected Records: 5 Duplicates: 0 Warnings: 0
- 10 09:39:17 INSERT INTO BookOrders (MemberID, OrderDate, ExpectedReturnDate, ActualReturnDate, Status, Payment... 5 row(s) affected Records: 5 Duplicates: 0 Warnings: 0
- 11 09:39:37 INSERT INTO BookOrderItems (OrderID, BookID, Quantity, RentalPrice, SpecialNotes, IsReturned) VALUES (... 5 row(s) affected Records: 5 Duplicates: 0 Warnings: 0
- 12 09:46:02 SELECT * FROM Books WHERE Genre = 'Fiction' LIMIT 0, 1000 1 row(s) returned
- 13 09:46:35 SELECT Genre, COUNT(*) AS TotalBooks FROM Books GROUP BY Genre LIMIT 0, 1000 5 row(s) returned
- 14 09:46:57 SELECT * FROM Books WHERE Genre = 'Self-help' AND AvailableCopies > 0 LIMIT 0, 1000 1 row(s) returned

4. Get All Issued Books by Genre

The screenshot shows the MySQL Workbench interface. The SQL editor contains the following query:

```
43 FROM Books
44 WHERE Genre = 'Self-help' AND AvailableCopies > 0;
45 SELECT b.Title, b.Genre, t.Status
46 FROM Transactions t
47 JOIN Books b ON t.BookID = b.BookID
48 WHERE t.Status = 'Issued' AND b.Genre = 'Business';
49
```

The Result Grid shows the following data:

Title	Genre	Status
Zero to One	Business	Issued

The Output pane shows the execution log with the following messages:

- 10 09:39:17 INSERT INTO BookOrders (MemberID, OrderDate, ExpectedReturnDate, ActualReturnDate, Status, Payment... 5 row(s) affected Records: 5 Duplicates: 0 Warnings: 0
- 11 09:39:37 INSERT INTO BookOrderItems (OrderID, BookID, Quantity, RentalPrice, SpecialNotes, IsReturned) VALUES (... 5 row(s) affected Records: 5 Duplicates: 0 Warnings: 0
- 12 09:46:02 SELECT * FROM Books WHERE Genre = 'Fiction' LIMIT 0, 1000 1 row(s) returned
- 13 09:46:35 SELECT Genre, COUNT(*) AS TotalBooks FROM Books GROUP BY Genre LIMIT 0, 1000 5 row(s) returned
- 14 09:46:57 SELECT * FROM Books WHERE Genre = 'Self-help' AND AvailableCopies > 0 LIMIT 0, 1000 1 row(s) returned
- 15 09:47:18 SELECT b.Title, b.Genre, t.Status FROM Transactions t JOIN Books b ON t.BookID = b.BookID WHERE t.Sta... 1 row(s) returned

5. Genres With Low Availability (e.g., < 3 Copies Left)

The screenshot shows the MySQL Workbench interface with a query executed in the 'VENNILA HACKATHON' database. The query is as follows:

```
47 JOIN Books b ON t.BookID = b.BookID
48 WHERE t.Status = 'Issued' AND b.Genre = 'Business';
49 SELECT Genre, Title, AvailableCopies
50 FROM Books
51 WHERE AvailableCopies < 3
52 ORDER BY AvailableCopies ASC;
```

The result grid shows the following data:

Genre	Title	AvailableCopies
Autobiography		20
Self-help		15
Motivation		12

The output pane shows the execution log with the following messages:

- 11 09:39:37 INSERT INTO BookOrderItems (OrderID, BookID, Quantity, RentalPrice, SpecialNotes, IsReturned) VALUES (...)
- 12 09:46:02 SELECT * FROM Books WHERE Genre = 'Fiction' LIMIT 0, 1000
- 13 09:46:35 SELECT Genre, COUNT(*) AS TotalBooks FROM Books GROUP BY Genre LIMIT 0, 1000
- 14 09:46:57 SELECT * FROM Books WHERE Genre = 'Self-help' AND AvailableCopies > 0 LIMIT 0, 1000
- 15 09:47:18 SELECT b.Title, b.Genre, t.Status FROM Transactions t JOIN Books b ON t.BookID = b.BookID WHERE t.Sta...
- 16 09:47:53 SELECT Genre, Title, AvailableCopies FROM Books WHERE AvailableCopies < 3 ORDER BY AvailableCopie...
- 17 09:48:18 SELECT Genre, SUM(TotalCopies) AS TotalBooks FROM Books GROUP BY Genre ORDER BY TotalBooks ...

6. Top 3 Genres by Total Number of Books

The screenshot shows the MySQL Workbench interface with a query executed in the 'VENNILA HACKATHON' database. The query is as follows:

```
52 ORDER BY AvailableCopies ASC;
53 SELECT Genre, SUM(TotalCopies) AS TotalBooks
54 FROM Books
55 GROUP BY Genre
56 ORDER BY TotalBooks DESC
57 LIMIT 3;
```

The result grid shows the following data:

Genre	TotalBooks
Autobiography	20
Self-help	15
Motivation	12

The output pane shows the execution log with the following messages:

- 12 09:46:02 SELECT * FROM Books WHERE Genre = 'Fiction' LIMIT 0, 1000
- 13 09:46:35 SELECT Genre, COUNT(*) AS TotalBooks FROM Books GROUP BY Genre LIMIT 0, 1000
- 14 09:46:57 SELECT * FROM Books WHERE Genre = 'Self-help' AND AvailableCopies > 0 LIMIT 0, 1000
- 15 09:47:18 SELECT b.Title, b.Genre, t.Status FROM Transactions t JOIN Books b ON t.BookID = b.BookID WHERE t.Sta...
- 16 09:47:53 SELECT Genre, Title, AvailableCopies FROM Books WHERE AvailableCopies < 3 ORDER BY AvailableCopie...
- 17 09:48:18 SELECT Genre, SUM(TotalCopies) AS TotalBooks FROM Books GROUP BY Genre ORDER BY TotalBooks ...