

# MySQL COMMANDS

Creating database libraryms:

```
mysql> create database libraryms;  
Query OK, 1 row affected (0.05 sec)  
  
mysql> use libraryms;  
Database changed
```

Creating table Books:

```
mysql> create table Books(  
-> Book_ID int NOT NULL PRIMARY KEY,  
-> Title varchar(200) NOT NULL,  
-> Author varchar(100) NOT NULL,  
-> Genre varchar(50) NOT NULL ,  
-> Publication_Year int NOT NULL,  
-> Shelf int NOT NULL)  
-> ;  
Query OK, 0 rows affected (0.14 sec)
```

Creating table members:

```
mysql> create table Members(  
-> Member_ID int NOT NULL PRIMARY KEY,  
-> Name varchar(50) NOT NULL,  
-> Address varchar(70) NOT NULL,  
-> Contact_No bigint NOT NULL,  
-> Email_ID varchar(40) NOT NULL)  
-> ;  
Query OK, 0 rows affected (0.03 sec)
```

Creating table transaction

```
mysql> create table Transaction(  
-> T_ID int NOT NULL PRIMARY KEY,  
-> Book_ID int NOT NULL,  
-> Member_ID int NOT NULL,  
-> Issued_Date date NOT NULL,  
-> Due_date date NOT NULL,  
-> Return_Date date NOT NULL,  
-> Fine int ,  
-> Status varchar(20),  
-> CONSTRAINT fk_books FOREIGN KEY (Book_ID) REFERENCES Books(Book_ID) ON UPDATE CASCADE,  
-> CONSTRAINT fk_members FOREIGN KEY (Member_ID) REFERENCES Members(Member_ID) ON UPDATE CASCADE)  
-> ;  
Query OK, 0 rows affected (0.09 sec)
```

## Inserting records into books:

```
mysql> insert into Books values(101, "Atomic Habits", "James Clear", "Self-help", 2018, 6)
-> ,(102, "To Kill a Mockingbird", "Harper Lee", "Thriller", 1960, 7)
-> ,(103, "Pride and Prejudice", "Jane Austen", "Fiction", 1813, 2)
-> ,(104, "The Midnight Library", "Matt Haig", "Fiction", 2020, 2)
-> ,(105, "The Book of Phoenix", "Nnedi Okorafor", "Science Fiction", 2015, 5)
-> ,(106, "The Alchemist", "Paulo Coelho", "Fiction", 1988, 2)
-> ,(107, "The Da Vinci Code", "Dan Brown", "Mystery", 2003, 3)
-> ,(108, "Train to Pakistan", "Khushwant Singh", "Fiction", 1956, 2)
-> ,(109, "Wings of Fire", "A.P.J. Abdul Kalam with Arun Tiwari", "Autobiography", 1999, 1)
-> ,(110, "A Writer's Nightmare", "R. K. Narayan", "Non-Fiction", 1988, 4)
-> ,(111, "Nectar in A Sieve", "Kamala Markandaya", "Fiction", 1954, 2)
-> ,(112, "The Great Gatsby", "F. Scott Fitzgerald", "Fiction", 1925, 2)
-> ,(113, "The Diary of a Young Girl", "Anne Frank", "Autobiography", 1947, 1)
-> ,(114, "I Am Malala: The Story of the Girl Who Stood Up for Education and Was Shot by the Taliban", "Malala Yousafzai with Christina Lamb", "Autobiography", 2013, 1)
-> ,(115, "The Hunger Games", "Suzanne Collins", "Science Fiction", 2008, 5)
-> ,(116, "A Wrinkle in Time", "Madeleine L'Engle", "Science Fiction", 1962, 5)
-> ,(117, "Ikigai: The Japanese Secret to a Long and Happy Life", "Hector Garcia and Francesc Miralles", "Self-help", 2016, 6)
-> ,(118, "Dune", "Frank Herbert", "Science Fiction", 1965, 5)
-> ,(119, "Ichigo Ichie: The Art of Making the Most of Every Moment, the Japanese Way", "Hector Garcia and Francesc Miralles", "Self-help", 2019, 6)
-> ,(120, "Metamorphosis", "Franz Kafka", "Fiction", 1915, 2)
-> ,(121, "Gone Girl", "Gillian Flynn", "Thriller", 2012, 7)
-> ,(122, "The Hound of the Baskervilles", "Sir Arthur Conan Doyle", "Mystery", 1902, 3)
-> ,(123, "The Murder of Roger Ackroyd", "Agatha Christie", "Mystery", 1926, 3)
-> ,(124, "The Echo Wife", "Sarah Gailley", "Science Fiction", 2021, 5)
-> ,(125, "The Martian Chronicles", "Ray Bradbury", "Science Fiction", 1950, 5)
-> ;
Query OK, 25 rows affected (0.01 sec)
Records: 25 Duplicates: 0 Warnings: 0
```

## Table: Books

```
mysql> select * from books
-> ;
```

Book_ID	Title	Author	Genre	Publication_Year	Shelf
101	Atomic Habits	James Clear	Self-help	2018	6
102	To Kill a Mockingbird	Harper Lee	Thriller	1960	7
103	Pride and Prejudice	Jane Austen	Fiction	1813	2
104	The Midnight Library	Matt Haig	Fiction	2020	2
105	The Book of Phoenix	Nnedi Okorafor	Science Fiction	2015	5
106	The Alchemist	Paulo Coelho	Fiction	1988	2
107	The Da Vinci Code	Dan Brown	Mystery	2003	3
108	Train to Pakistan	Khushwant Singh	Fiction	1956	2
109	Wings of Fire	A.P.J. Abdul Kalam with Arun Tiwari	Autobiography	1999	1
110	A Writer's Nightmare	R. K. Narayan	Non-Fiction	1988	4
111	Nectar in A Sieve	Kamala Markandaya	Fiction	1954	2
112	The Great Gatsby	F. Scott Fitzgerald	Fiction	1925	2
113	The Diary of a Young Girl	Anne Frank	Autobiography	1947	1
114	I Am Malala: The Story of the Girl Who Stood Up for Education and Was Shot by the Taliban	Malala Yousafzai with Christina Lamb	Autobiography	2013	1
115	The Hunger Games	Suzanne Collins	Science Fiction	2008	5
116	A Wrinkle in Time	Madeleine L'Engle	Science Fiction	1962	5
117	Ikigai: The Japanese Secret to a Long and Happy Life	Hector Garcia and Francesc Miralles	Self-help	2016	6
118	Dune	Frank Herbert	Science Fiction	1965	5
119	Ichigo Ichie: The Art of Making the Most of Every Moment, the Japanese Way	Hector Garcia and Francesc Miralles	Self-help	2019	6
120	Metamorphosis	Franz Kafka	Fiction	1915	2
121	Gone Girl	Gillian Flynn	Thriller	2012	7
122	The Hound of the Baskervilles	Sir Arthur Conan Doyle	Mystery	1902	3
123	The Murder of Roger Ackroyd	Agatha Christie	Mystery	1926	3
124	The Echo Wife	Sarah Gailley	Science Fiction	2021	5
125	The Martian Chronicles	Ray Bradbury	Science Fiction	1950	5

```
25 rows in set (0.00 sec)
```

## Inserting records into Members:

```
mysql> INSERT INTO Members (Member_ID, Name, Address, Contact_No, Email_ID) VALUES
-> (1, 'Amit Sharma', '123, T. Nagar, Chennai', '9876543210', 'amit.sharma@gmail.com'),
-> (2, 'Priya Gupta', '456, Adyar, Chennai', '9823456789', 'priya.gupta@yahoo.com'),
-> (3, 'Ravi Kumar', '78, Mylapore, Chennai', '9845123478', 'ravi.kumar@hotmail.com'),
-> (4, 'Sakshi Patel', '23, Anna Nagar, Chennai', '9912345678', 'sakshi.patel@gmail.com'),
-> (5, 'Rahul Verma', '12, Velachery, Chennai', '9876123456', 'rahul.verma@rediffmail.com'),
-> (6, 'Sanya Singh', '67, Besant Nagar, Chennai', '9823789012', 'sanya.singh@outlook.com'),
-> (7, 'Arjun Nair', '90, Kilpauk, Chennai', '9845012345', 'arjun.nair@gmail.com'),
-> (8, 'Meera Iyer', '234, Nungambakkam, Chennai', '9823098765', 'meera.iyer@yahoo.com'),
-> (9, 'Vivek Reddy', '56, Guindy, Chennai', '9945678901', 'vivek.reddy@hotmail.com'),
-> (10, 'Neha Deshmukh', '11, Egmore, Chennai', '9878901234', 'neha.deshmukh@gmail.com'),
-> (11, 'Karan Joshi', '123, Saidapet, Chennai', '9812345678', 'karan.joshi@yahoo.com'),
-> (12, 'Anjali Mehta', '78, Teynampet, Chennai', '9834678901', 'anjali.mehta@hotmail.com'),
-> (13, 'Siddharth Rao', '45, Mount Road, Chennai', '9845123490', 'siddharth.rao@gmail.com'),
-> (14, 'Rhea Kapoor', '90, Royapettah, Chennai', '9823401234', 'rhea.kapoor@yahoo.com'),
-> (15, 'Ajay Thakur', '67, Purasawalkam, Chennai', '9876789012', 'ajay.thakur@outlook.com'),
-> (16, 'Divya Menon', '34, T. Nagar, Chennai', '9845012378', 'divya.menon@gmail.com'),
-> (17, 'Vikram Chauhan', '456, Adyar, Chennai', '9812345789', 'vikram.chauhan@yahoo.com'),
-> (18, 'Pooja Aggarwal', '78, Ashok Nagar, Chennai', '9823789123', 'pooja.aggarwal@hotmail.com'),
-> (19, 'Rohan Bhatt', '23, Pallavaram, Chennai', '9876123489', 'rohan.bhatt@gmail.com'),
-> (20, 'Tanya Kapoor', '89, Chromepet, Chennai', '9812398745', 'tanya.kapoor@yahoo.com');
Query OK, 20 rows affected (0.01 sec)
Records: 20 Duplicates: 0 Warnings: 0
```

## Table: Members

```
mysql> select * from members;
```

Member_ID	Name	Address	Contact_No	Email_ID
1	Amit Sharma	123, T. Nagar, Chennai	9876543210	amit.sharma@gmail.com
2	Priya Gupta	456, Adyar, Chennai	9823456789	priya.gupta@yahoo.com
3	Ravi Kumar	78, Mylapore, Chennai	9845123478	ravi.kumar@hotmail.com
4	Sakshi Patel	23, Anna Nagar, Chennai	9912345678	sakshi.patel@gmail.com
5	Rahul Verma	12, Velachery, Chennai	9876123456	rahul.verma@rediffmail.com
6	Sanya Singh	67, Besant Nagar, Chennai	9823789012	sanya.singh@outlook.com
7	Arjun Nair	90, Kilpauk, Chennai	9845012345	arjun.nair@gmail.com
8	Meera Iyer	234, Nungambakkam, Chennai	9823098765	meera.iyer@yahoo.com
9	Vivek Reddy	56, Guindy, Chennai	9945678901	vivek.reddy@hotmail.com
10	Neha Deshmukh	11, Egmore, Chennai	9878901234	neha.deshmukh@gmail.com
11	Karan Joshi	123, Saidapet, Chennai	9812345678	karan.joshi@yahoo.com
12	Anjali Mehta	78, Teynampet, Chennai	9834678901	anjali.mehta@hotmail.com
13	Siddharth Rao	45, Mount Road, Chennai	9845123490	siddharth.rao@gmail.com
14	Rhea Kapoor	90, Royapettah, Chennai	9823401234	rhea.kapoor@yahoo.com
15	Ajay Thakur	67, Purasawalkam, Chennai	9876789012	ajay.thakur@outlook.com
16	Divya Menon	34, T. Nagar, Chennai	9845012378	divya.menon@gmail.com
17	Vikram Chauhan	456, Adyar, Chennai	9812345789	vikram.chauhan@yahoo.com
18	Pooja Aggarwal	78, Ashok Nagar, Chennai	9823789123	pooja.aggarwal@hotmail.com
19	Rohan Bhatt	23, Pallavaram, Chennai	9876123489	rohan.bhatt@gmail.com
20	Tanya Kapoor	89, Chromepet, Chennai	9812398745	tanya.kapoor@yahoo.com

```
20 rows in set (0.00 sec)
```

## Inserting records into Transaction:

```
mysql> INSERT INTO Transaction (T_ID, Book_ID, Member_ID, Issued_Date, Due_Date, Return_Date, Fine, Status) VALUES
-> (50101, 113, 14, '2024-01-05', '2024-01-20', '2024-01-18', NULL, 'Returned'),
-> (50102, 117, 3, '2024-01-10', '2024-01-25', '2024-01-24', NULL, 'Returned'),
-> (50103, 125, 9, '2024-01-15', '2024-01-30', '2024-01-31', 10, 'Paid'),
-> (50104, 115, 17, '2024-02-01', '2024-02-16', '2024-02-13', NULL, 'Returned'),
-> (50105, 103, 1, '2024-02-10', '2024-02-25', '2024-02-28', 30, 'Paid'),
-> (50106, 109, 16, '2024-03-05', '2024-03-20', '2024-03-18', NULL, 'Returned'),
-> (50107, 107, 12, '2024-03-15', '2024-03-30', '2024-04-01', 20, 'Paid'),
-> (50108, 121, 7, '2024-04-10', '2024-04-25', '2024-04-29', 40, 'Paid'),
-> (50109, 105, 18, '2024-05-01', '2024-05-16', '2024-05-17', 10, 'Paid'),
-> (50110, 123, 5, '2024-05-10', '2024-05-25', '2024-05-24', NULL, 'Returned'),
-> (50111, 104, 6, '2024-06-01', '2024-06-16', '2024-06-14', NULL, 'Returned'),
-> (50113, 116, 20, '2024-06-01', '2024-06-16', '2024-06-18', 20, 'Paid'),
-> (50112, 111, 11, '2024-07-10', '2024-07-25', '2024-07-27', 20, 'Paid'),
-> (50114, 106, 10, '2024-08-01', '2024-08-16', '2024-08-15', NULL, 'Returned'),
-> (50115, 119, 8, '2024-09-05', '2024-09-20', '2024-09-22', 10, 'Paid'),
-> (50116, 102, 13, '2024-10-02', '2024-10-17', NULL, NULL, 'Unpaid');
Query OK, 16 rows affected (0.00 sec)
Records: 16 Duplicates: 0 Warnings: 0
```

## Table Transaction:

```
mysql> select * from transaction;
```

T_ID	Book_ID	Member_ID	Issued_Date	Due_date	Return_Date	Fine	Status
50101	113	14	2024-01-05	2024-01-20	2024-01-18	NULL	Returned
50102	117	3	2024-01-10	2024-01-25	2024-01-24	NULL	Returned
50103	125	9	2024-01-15	2024-01-30	2024-01-31	10	Paid
50104	115	17	2024-02-01	2024-02-16	2024-02-13	NULL	Returned
50105	103	1	2024-02-10	2024-02-25	2024-02-28	30	Paid
50106	109	16	2024-03-05	2024-03-20	2024-03-18	NULL	Returned
50107	107	12	2024-03-15	2024-03-30	2024-04-01	20	Paid
50108	121	7	2024-04-10	2024-04-25	2024-04-29	40	Paid
50109	105	18	2024-05-01	2024-05-16	2024-05-17	10	Paid
50110	123	5	2024-05-10	2024-05-25	2024-05-24	NULL	Returned
50111	104	6	2024-06-01	2024-06-16	2024-06-14	NULL	Returned
50112	111	11	2024-07-10	2024-07-25	2024-07-27	20	Paid
50113	116	20	2024-06-01	2024-06-16	2024-06-18	20	Paid
50114	106	10	2024-08-01	2024-08-16	2024-08-15	NULL	Returned
50115	119	8	2024-09-05	2024-09-20	2024-09-22	10	Paid
50116	102	13	2024-10-02	2024-10-17	NULL	NULL	Unpaid

16 rows in set (0.00 sec)