**MySQL MCQs**

* **Which of the following is a MySQL command to view the current databases?**
* a) SHOW DATABASES;
* b) DISPLAY DATABASES;
* c) LIST DATABASES;
* d) VIEW DATABASES;
* **What is the correct command to create a new database in MySQL?**
* a) CREATE NEW DATABASE db\_name;
* b) CREATE DATABASE db\_name;
* c) NEW DATABASE db\_name;
* d) MAKE DATABASE db\_name;
* **Which command is used to delete a database in MySQL?**
* a) DELETE DATABASE db\_name;
* b) REMOVE DATABASE db\_name;
* c) DROP DATABASE db\_name;
* d) ERASE DATABASE db\_name;
* **How do you select all columns from a table named 'users'?**
* a) SELECT ALL FROM users;
* b) SELECT \* FROM users;
* c) SELECT FROM users;
* d) SHOW \* FROM users;
* **Which of the following is used to add a new column to an existing table?**
* a) ADD COLUMN table\_name column\_name column\_type;
* b) ALTER TABLE table\_name ADD COLUMN column\_name column\_type;
* c) MODIFY TABLE table\_name ADD column\_name column\_type;
* d) INSERT COLUMN table\_name column\_name column\_type;
* **What is the command to delete rows from a table based on a condition?**
* a) REMOVE FROM table\_name WHERE condition;
* b) DELETE FROM table\_name WHERE condition;
* c) ERASE FROM table\_name WHERE condition;
* d) CLEAR FROM table\_name WHERE condition;
* **Which SQL statement is used to update data in a table?**
* a) MODIFY table\_name SET column\_name = value WHERE condition;
* b) CHANGE table\_name SET column\_name = value WHERE condition;
* c) UPDATE table\_name SET column\_name = value WHERE condition;
* d) EDIT table\_name SET column\_name = value WHERE condition;
* **Which keyword is used to sort the results of a query?**
* a) ORDER BY
* b) SORT BY
* c) GROUP BY
* d) ARRANGE BY
* **How can you limit the number of rows returned by a query?**
* a) LIMIT number;
* b) RESTRICT number;
* c) ROWS number;
* d) COUNT number;
* **Which function is used to count the number of rows in a table?**
* a) SUM()
* b) COUNT()
* c) TOTAL()
* d) NUMBER()
* **What is a primary key?**
* a) A column that uniquely identifies each row in a table
* b) A column that can contain duplicate values
* c) A column used to establish relationships between tables
* d) A column that always has a default value
* **Which MySQL statement is used to create a table?**
* a) NEW TABLE table\_name (columns);
* b) ADD TABLE table\_name (columns);
* c) CREATE TABLE table\_name (columns);
* d) MAKE TABLE table\_name (columns);
* **What does the 'NULL' value represent in MySQL?**
* a) Zero
* b) Empty string
* c) Missing or undefined value
* d) A space character
* **Which SQL clause is used to filter records?**
* a) FILTER
* b) WHERE
* c) HAVING
* d) LIMIT
* **How do you rename a table in MySQL?**
* a) RENAME table\_name TO new\_table\_name;
* b) ALTER TABLE table\_name TO new\_table\_name;
* c) MODIFY TABLE table\_name TO new\_table\_name;
* d) CHANGE TABLE table\_name TO new\_table\_name;
* **Which operator is used to check for a specified pattern in a column?**
* a) LIKE
* b) MATCH
* c) PATTERN
* d) SEARCH
* **What is the purpose of the GROUP BY clause?**
* a) To sort data
* b) To filter data
* c) To group rows that have the same values in specified columns into summary rows
* d) To limit data
* **How do you combine rows from two or more tables, based on a related column?**
* a) MERGE
* b) JOIN
* c) LINK
* d) COMBINE
* **Which command is used to remove a column from a table?**
* a) DELETE COLUMN column\_name FROM table\_name;
* b) REMOVE COLUMN column\_name FROM table\_name;
* c) DROP COLUMN column\_name FROM table\_name;
* d) ERASE COLUMN column\_name FROM table\_name;
* **Which clause is used to filter the results set after grouping?**
* a) WHERE
* b) HAVING
* c) GROUP BY
* d) FILTER
* **What is the correct syntax for a MySQL INSERT statement?**
* a) INSERT INTO table\_name (columns) VALUES (values);
* b) ADD INTO table\_name (columns) VALUES (values);
* c) INSERT table\_name (columns) VALUES (values);
* d) ADD table\_name (columns) VALUES (values);
* **Which of the following is true about foreign keys?**
* a) They uniquely identify each row in a table
* b) They enforce a link between the data in two tables
* c) They allow duplicate values
* d) They always have a default value
* **What does the DISTINCT keyword do?**
* a) It selects all unique values
* b) It sorts the results
* c) It groups the results
* d) It filters the results
* **Which MySQL function is used to calculate the average value of a numeric column?**
* a) SUM()
* b) COUNT()
* c) AVERAGE()
* d) AVG()
* **How do you select all columns from a table named 'customers' where the 'age' is greater than 30?**
* a) SELECT \* FROM customers WHERE age > 30;
* b) SELECT ALL FROM customers WHERE age > 30;
* c) SELECT \* FROM customers HAVING age > 30;
* d) SELECT ALL FROM customers HAVING age > 30;
* **Which MySQL command is used to delete a table?**
* a) DROP TABLE table\_name;
* b) DELETE TABLE table\_name;
* c) REMOVE TABLE table\_name;
* d) ERASE TABLE table\_name;
* **What does the AUTO\_INCREMENT attribute do?**
* a) Automatically inserts a null value
* b) Automatically inserts a unique value
* c) Automatically inserts a zero value
* d) Automatically inserts the previous row's value
* **Which MySQL data type is used to store large text?**
* a) TEXT
* b) VARCHAR
* c) CHAR
* d) STRING
* **How do you create a stored procedure in MySQL?**
* a) CREATE PROCEDURE proc\_name AS BEGIN ... END;
* b) NEW PROCEDURE proc\_name AS BEGIN ... END;
* c) ADD PROCEDURE proc\_name AS BEGIN ... END;
* d) MAKE PROCEDURE proc\_name AS BEGIN ... END;
* **What is the command to display the structure of a table?**
* a) SHOW TABLE table\_name;
* b) DESCRIBE table\_name;
* c) EXPLAIN table\_name;
* d) VIEW TABLE table\_name;

**MySQL Exercises**

* **Create a database named library.cc**

CREATE DATABASE LIB;

Query OK, 1 row affected (0.01 sec)

mysql> USE LIB;

Database changed

* **Create a table named books with columns id, title, author, and published\_year.**

CREATE TABLE BOOKS (ID INT(10) PRIMARY KEY,NAME VARCHAR(200),AUTHOR VARCHAR(200),PUBLISHEDYEAR INT(5));

Query OK, 0 rows affected, 2 warnings (0.04 sec)

mysql> DESCRIBE BOOKS;

+---------------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+---------------+--------------+------+-----+---------+-------+

| ID | int | NO | PRI | NULL | |

| NAME | varchar(200) | YES | | NULL | |

| AUTHOR | varchar(200) | YES | | NULL | |

| PUBLISHEDYEAR | int | YES | | NULL | |

+---------------+--------------+------+-----+---------+-------+

4 rows in set (0.00 sec)

* **Insert three records into the books table.**

INSERT INTO BOOKS VALUES(1,'AMMA DAIRY LO KONNI PAGEELU','RAVI MANTRI',2023),(2,'KADALI CHICKLIT','KADALI SATHYANARAYANA',2024),(3,'KAVVINCHE KATHALU','KARTHIKEYA TALLURI',2024);

Query OK, 3 rows affected (0.02 sec)

Records: 3 Duplicates: 0 Warnings: 0

mysql> SELECT \* FROM BOOKS;

+----+-----------------------------+-----------------------+---------------+

| ID | NAME | AUTHOR | PUBLISHEDYEAR |

+----+-----------------------------+-----------------------+---------------+

| 1 | AMMA DAIRY LO KONNI PAGEELU | RAVI MANTRI | 2023 |

| 2 | KADALI CHICKLIT | KADALI SATHYANARAYANA | 2024 |

| 3 | KAVVINCHE KATHALU | KARTHIKEYA TALLURI | 2024 |

+----+-----------------------------+-----------------------+---------------+

3 rows in set (0.00 sec)

* **Update the author of the book with id 1 to 'George Orwell'.**

UPDATE BOOKS SET AUTHOR='George Orwell' WHERE ID=1;

Query OK, 1 row affected (0.01 sec)

Rows matched: 1 Changed: 1 Warnings: 0

mysql> SELECT \* FROM BOOKS;

+----+-----------------------------+-----------------------+---------------+

| ID | NAME | AUTHOR | PUBLISHEDYEAR |

+----+-----------------------------+-----------------------+---------------+

| 1 | AMMA DAIRY LO KONNI PAGEELU | George Orwell | 2023 |

| 2 | KADALI CHICKLIT | KADALI SATHYANARAYANA | 2024 |

| 3 | KAVVINCHE KATHALU | KARTHIKEYA TALLURI | 2024 |

+----+-----------------------------+-----------------------+---------------+

3 rows in set (0.00 sec)

* **Delete the book with id 3 from the books table.**

DELETE FROM BOOKS WHERE ID=3;

Query OK, 1 row affected (0.01 sec)

mysql> SELECT \* FROM BOOKS;

+------+-----------------------------+-----------------------+---------------+

| ID | NAME | AUTHOR | PUBLISHEDYEAR |

+------+-----------------------------+-----------------------+---------------+

| 1 | AMMA DAIRY LO KONNI PAGEELU | George Orwell | 2023 |

| 2 | KADALI CHICKLIT | KADALI SATHYANARAYANA | 2024 |

+------+-----------------------------+-----------------------+---------------+

2 rows in set (0.00 sec)

* **Select all columns from the books table.**

SELECT \* FROM BOOKS;

+------+-----------------------------+-----------------------+---------------+

| ID | NAME | AUTHOR | PUBLISHEDYEAR |

+------+-----------------------------+-----------------------+---------------+

| 1 | AMMA DAIRY LO KONNI PAGEELU | George Orwell | 2023 |

| 2 | KADALI CHICKLIT | KADALI SATHYANARAYANA | 2024 |

+------+-----------------------------+-----------------------+---------------+

2 rows in set (0.00 sec)

* **Select only the title and author columns from the books table.**

SELECT NAME,AUTHOR FROM BOOKS;

+-----------------------------+-----------------------+

| NAME | AUTHOR |

+-----------------------------+-----------------------+

| AMMA DAIRY LO KONNI PAGEELU | George Orwell |

| KADALI CHICKLIT | KADALI SATHYANARAYANA |

+-----------------------------+-----------------------+

2 rows in set (0.00 sec)

* **Create a table named members with columns id, name, and membership\_date.**

CREATE TABLE MEMBERS(ID INT(10),NAME VARCHAR(100),MEMBERSHIPDATE DATE);

Query OK, 0 rows affected, 1 warning (0.05 sec)

mysql> DESCRIBE MEMBERS;

+----------------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+----------------+--------------+------+-----+---------+-------+

| ID | int | YES | | NULL | |

| NAME | varchar(100) | YES | | NULL | |

| MEMBERSHIPDATE | date | YES | | NULL | |

+----------------+--------------+------+-----+---------+-------+

3 rows in set (0.00 sec)

* **Insert five records into the members table.**

INSERT INTO MEMBERS VALUES(1,'LEKHA','2025-01-01'),(2,'SHRI','2024-06-23'),(3,'VEENA','2023-09-24'),(4,'VAISHU','2025-08-23'),(5,'SREYA','2023-09-24');

Query OK, 5 rows affected (0.01 sec)

Records: 5 Duplicates: 0 Warnings: 0

SELECT \* FROM MEMBERS;

+------+--------+----------------+

| ID | NAME | MEMBERSHIPDATE |

+------+--------+----------------+

| 1 | LEKHA | 2025-01-01 |

| 2 | SHRI | 2024-06-23 |

| 3 | VEENA | 2023-09-24 |

| 4 | VAISHU | 2025-08-23 |

| 5 | SREYA | 2023-09-24 |

+------+--------+----------------+

5 rows in set (0.00 sec)

* **Update the name of the member with id 2 to 'Jane Doe'.**

UPDATE MEMBERS SET NAME='Jane Doe' WHERE ID=2;

Query OK, 1 row affected (0.01 sec)

Rows matched: 1 Changed: 1 Warnings: 0

mysql> SELECT \* FROM MEMBERS;

+------+----------+----------------+

| ID | NAME | MEMBERSHIPDATE |

+------+----------+----------------+

| 1 | LEKHA | 2025-01-01 |

| 2 | Jane Doe | 2024-06-23 |

| 3 | VEENA | 2023-09-24 |

| 4 | VAISHU | 2025-08-23 |

| 5 | SREYA | 2023-09-24 |

+------+----------+----------------+

5 rows in set (0.00 sec)

* **Delete the member with id 5 from the members table.**

DELETE FROM MEMBERS WHERE ID=5;

Query OK, 1 row affected (0.01 sec)

mysql> SELECT \* FROM MEMBERS;

+------+----------+----------------+

| ID | NAME | MEMBERSHIPDATE |

+------+----------+----------------+

| 1 | LEKHA | 2025-01-01 |

| 2 | Jane Doe | 2024-06-23 |

| 3 | VEENA | 2023-09-24 |

| 4 | VAISHU | 2025-08-23 |

+------+----------+----------------+

4 rows in set (0.00 sec)

* **Select all columns from the members table.**

SELECT \* FROM MEMBERS;

+------+----------+----------------+

| ID | NAME | MEMBERSHIPDATE |

+------+----------+----------------+

| 1 | LEKHA | 2025-01-01 |

| 2 | Jane Doe | 2024-06-23 |

| 3 | VEENA | 2023-09-24 |

| 4 | VAISHU | 2025-08-23 |

+------+----------+----------------+

4 rows in set (0.00 sec)

* **Create a table named loans with columns id, book\_id, member\_id, and loan\_date.**

CREATE TABLE LOANS(ID INT(10),BOOKID INT(10),MEMBERID INT(10),LOANDATE DATE);

Query OK, 0 rows affected, 3 warnings (0.04 sec)

mysql> DESCRIBE LOAN;

+----------+------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+----------+------+------+-----+---------+-------+

| ID | int | YES | | NULL | |

| BOOKID | int | YES | | NULL | |

| MEMBERID | int | YES | | NULL | |

| LOANDATE | date | YES | | NULL | |

+----------+------+------+-----+---------+-------+

4 rows in set (0.00 sec)

* **Insert three records into the loans table.**

INSERT INTO LOAN VALUES(1,1,1,'2022-03-04'),(2,2,2,'2023-03-03'),(3,3,3,'2023-01-01');

Query OK, 3 rows affected (0.01 sec)

Records: 3 Duplicates: 0 Warnings: 0

mysql> SELECT \* FROM LOAN;

+------+--------+----------+------------+

| ID | BOOKID | MEMBERID | LOANDATE |

+------+--------+----------+------------+

| 1 | 1 | 1 | 2022-03-04 |

| 2 | 2 | 2 | 2023-03-03 |

| 3 | 3 | 3 | 2023-01-01 |

+------+--------+----------+------------+

3 rows in set (0.00 sec)

* **Select all loans where the loan\_date is after '2023-01-01'.**

SELECT \* FROM LOAN WHERE LOANDATE>'2023-01-01';

+------+--------+----------+------------+

| ID | BOOKID | MEMBERID | LOANDATE |

+------+--------+----------+------------+

| 2 | 30 | 34 | 2023-03-04 |

+------+--------+----------+------------+

1 row in set (0.01 sec)

* **Add a new column return\_date to the loans table.**

ALTER TABLE LOANS ADD COLUMN RETURNDATE DATE;

Query OK, 0 rows affected (0.04 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> DESCRIBE LOANS;

+------------+------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+------------+------+------+-----+---------+-------+

| ID | int | YES | | NULL | |

| BOOKID | int | YES | | NULL | |

| MEMBERID | int | YES | | NULL | |

| LOANDATE | date | YES | | NULL | |

| RETURNDATE | date | YES | | NULL | |

+------------+------+------+-----+---------+-------+

5 rows in set (0.00 sec)

* **Update the return\_date for the loan with id 1 to '2023-06-01'.**

UPDATE LOAN

-> SET RETURNDATE=CASE

-> WHEN ID = 1 AND RETURNDATE IS NULL THEN '2023-06-01'

-> WHEN ID = 2 AND RETURNDATE IS NULL THEN '2025-06-01'

-> WHEN ID = 3 AND RETURNDATE IS NULL THEN '2025-05-01'

-> END;

Query OK, 3 rows affected (0.01 sec)

Rows matched: 3 Changed: 3 Warnings: 0

mysql> SELECT \* FROM LOAN;

+------+--------+----------+------------+------------+

| ID | BOOKID | MEMBERID | LOANDATE | RETURNDATE |

+------+--------+----------+------------+------------+

| 1 | 20 | 30 | 2022-09-01 | 2023-06-01 |

| 2 | 30 | 34 | 2023-03-04 | 2025-06-01 |

| 3 | 56 | 47 | 2023-01-01 | 2025-05-01 |

+------+--------+----------+------------+------------+

3 rows in set (0.00 sec)

* **Delete the loan with id 3 from the loans table.**

DELETE FROM LOAN WHERE ID=3;

Query OK, 1 row affected (0.01 sec)

mysql> SELECT \* FROM LOAN;

+------+--------+----------+------------+------------+

| ID | BOOKID | MEMBERID | LOANDATE | RETURNDATE |

+------+--------+----------+------------+------------+

| 1 | 20 | 30 | 2022-09-01 | 2023-06-01 |

| 2 | 30 | 34 | 2023-03-04 | 2025-06-01 |

+------+--------+----------+------------+------------+

2 rows in set (0.00 sec)

* **Select all columns from the loans table.**

SELECT \* FROM LOAN;

+------+--------+----------+------------+------------+

| ID | BOOKID | MEMBERID | LOANDATE | RETURNDATE |

+------+--------+----------+------------+------------+

| 1 | 20 | 30 | 2022-09-01 | 2023-06-01 |

| 2 | 30 | 34 | 2023-03-04 | 2025-06-01 |

+------+--------+----------+------------+------------+

2 rows in set (0.00 sec)

* **Create a view named member\_loans that shows the member's name and the titles of the books they have borrowed.**

CREATE VIEW MEMBERS\_LOANS

-> AS SELECT MEMBERS.NAME AS MNAME,BOOKS.NAME AS BNAME

-> FROM LOAN

-> JOIN MEMBERS ON LOAN.MEMBERID=MEMBERS.ID

-> JOIN BOOKS ON LOAN.BOOKID=BOOKS.ID;

Query OK, 0 rows affected (0.02 sec)

mysql> SELECT \* FROM MEMBERS\_LOANS;

+----------+-----------------------------+

| MNAME | BNAME |

+----------+-----------------------------+

| LEKHA | AMMA DAIRY LO KONNI PAGEELU |

| Jane Doe | KADALI CHICKLIT |

+----------+-----------------------------+

2 rows in set (0.00 sec)

* **Create a stored procedure named get\_book\_by\_title that takes a title as input and returns the book details.**
* **Create an index on the title column of the books table.**
* **Create a trigger that updates a last\_updated column in the books table every time a record is updated.**
* **Grant all privileges on the library database to a user named 'librarian' with password 'password123'.**
* **Revoke the INSERT privilege on the books table from the 'librarian' user.**