

```
mysql> CREATE TABLE Employee (id INT(11), Fname VARCHAR(30), Lname
VARCHAR(30),Department VARCHAR(30),Project VARCHAR(10),Address VARCHAR(40),DOB
DATE, Gender VARCHAR(10));
```

Query OK, 0 rows affected (0.02 sec)

```
mysql> desc employee;
```

Field	Type	Null	Key	Default	Extra
id	int(11)	YES		NULL	
Fname	varchar(30)	YES		NULL	
Lname	varchar(30)	YES		NULL	
Department	varchar(30)	YES		NULL	
Project	varchar(10)	YES		NULL	
Address	varchar(40)	YES		NULL	
DOB	date	YES		NULL	
Gender	varchar(10)	YES		NULL	

8 rows in set (0.02 sec)

```
mysql> INSERT INTO employee VALUES (1, 'Sanjay', 'Mehra', 'HR', 'P1', 'Hyderabad(HYD)', '1976-12-01', 'M');
```

Query OK, 1 row affected (0.00 sec)

```
mysql> INSERT INTO employee VALUES (2, 'Ananya', 'Mishra', 'Admin', 'P2', 'Delhi(DEL)', '1968-05-02', 'F');
```

Query OK, 1 row affected (0.00 sec)

```
mysql> INSERT INTO employee VALUES (3, 'Rohan', 'Diwan', 'Account', 'P3', 'Mumbai(BOM)', '1980-01-01', 'M');
```

Query OK, 1 row affected (0.00 sec)

```
mysql> INSERT INTO employee VALUES (4, 'Sonia', 'Kulkarni', 'HR', 'P1', 'Hyderabad(HYD)', '1992-05-02', 'F');
```

Query OK, 1 row affected (0.00 sec)

```
mysql> INSERT INTO employee VALUES (5, 'Ankit', 'Kapoor', 'Admin', 'P2', 'Delhi(DEL)', '1994-07-03', 'M');
```

Query OK, 1 row affected (0.00 sec)

```
mysql> SELECT * FROM Employee;
```

```
+-----+-----+-----+-----+-----+-----+-----+
| id | Fname | Lname | Department | Project | Address | DOB | Gender |
+-----+-----+-----+-----+-----+-----+-----+
| 1 | Sanjay | mehra | HR | P1 | Hyderabad(HYD) | 1976-12-01 | M |
| 2 | Ananya | mishra | Admin | P2 | Delhi(DEL) | 1968-05-02 | F |
| 3 | Rohan | diwan | Account | P3 | Mumbai(BOM) | 1980-01-01 | M |
| 4 | Sonia | kulkarni | HR | P1 | Hyderabad(HYD) | 1992-05-02 | F |
| 5 | Ankit | kapoor | Admin | P2 | Delhi(DEL) | 1994-07-03 | M |
+-----+-----+-----+-----+-----+-----+-----+
```

5 rows in set (0.00 sec)

```
mysql> SELECT UPPER(Fname) AS EmpName FROM Employee;
```

```
+-----+
| EmpName |
+-----+
| SANJAY |
| ANANYA |
| ROHAN |
| SONIA |
| ANKIT |
+-----+
```

5 rows in set (0.00 sec)

```
mysql> SELECT COUNT(*) AS NumberofEmployees FROM Employee WHERE Department = 'HR';
```

```
+-----+
| NumberofEmployees |
+-----+
|          2        |
+-----+
```

```
1 row in set (0.00 sec)
```

```
mysql> SELECT CURRENT_DATE AS CurrentDate;
```

```
+-----+
| CurrentDate |
+-----+
| 2023-07-30  |
+-----+
```

```
1 row in set (0.00 sec)
```

```
mysql> SELECT SUBSTRING(Lname, 1, 4) AS FirstFourCharacters FROM Employee;
```

```
+-----+
| FirstFourCharacters |
+-----+
| Mehr                |
| Mish                |
| Diwa                |
| Kulk                |
| Kapo                |
+-----+
```

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

```
mysql> SELECT SUBSTRING_INDEX(Address, '(', 1) AS Address FROM Employee;
```

```
+-----+
| Address |
+-----+
| Hyderabad |
| Delhi    |
| Mumbai   |
| Hyderabad |
| Delhi    |
+-----+
```

5 rows in set (0.00 sec)

```
mysql> CREATE TABLE Employee_Copy AS SELECT * FROM Employee;
```

Query OK, 5 rows affected (0.02 sec)

Records: 5 Duplicates: 0 Warnings: 0

```
mysql> Select * from Employee;
```

```
+-----+-----+-----+-----+-----+-----+-----+-----+
| id | Fname | Lname | Department | Project | Address | DOB | Gender |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 1 | Sanjay | Mehra | HR | P1 | Hyderabad(HYD) | 1976-12-01 | M |
| 2 | Ananya | Mishra | Admin | P2 | Delhi(DEL) | 1968-05-02 | F |
| 3 | Rohan | Diwan | Account | P3 | Mumbai(BOM) | 1980-01-01 | M |
| 4 | Sonia | Kulkarni | HR | P1 | Hyderabad(HYD) | 1992-05-02 | F |
| 5 | Ankit | Kapoor | Admin | P2 | Delhi(DEL) | 1994-07-03 | M |
+-----+-----+-----+-----+-----+-----+-----+-----+
```

5 rows in set (0.00 sec)

```
mysql> Select * from emp;
```

id	Fname	Lname	Department	Project	Address	DOB	Gender
1	Sanjay	Mehra	HR	P1	Hyderabad(HYD)	1976-12-01	M
2	Ananya	Mishra	Admin	P2	Delhi(DEL)	1968-05-02	F
3	Rohan	Diwan	Account	P3	Mumbai(BOM)	1980-01-01	M
4	Sonia	Kulkarni	HR	P41	Hyderabad(HYD)	1992-05-02	F
5	Ankit	Kapoor	Admin	P2	Delhi(DEL)	1994-07-03	M

5 rows in set (0.01 sec)

```
mysql> ALTER TABLE Employee ADD COLUMN salary_amount DECIMAL(10, 2);
```

Query OK, 5 rows affected (0.03 sec)

Records: 5 Duplicates: 0 Warnings: 0

```
mysql> UPDATE Employee SET salary_amount = 60000 WHERE id = 1;
```

Query OK, 1 row affected (0.00 sec)

Rows matched: 1 Changed: 1 Warnings: 0

```
mysql> UPDATE Employee SET salary_amount = 10000 WHERE id = 2;
```

Query OK, 1 row affected (0.00 sec)

Rows matched: 1 Changed: 1 Warnings: 0

```
mysql> UPDATE Employee SET salary_amount = 80000 WHERE id = 3;
```

Query OK, 1 row affected (0.00 sec)

Rows matched: 1 Changed: 1 Warnings: 0

Rows matched: 1 Changed: 1 Warnings: 0

Rows matched: 1 Changed: 1 Warnings: 0

id	Fname	Lname	Department	Project	Address	DOB	Gender	salary_amount
1	Sanjay	Mehra	HR	P1	Hyderabad(HYD)	1976-12-01	M	60000.00
3	Rohan	Diwan	Account	P3	Mumbai(BOM)	1980-01-01	M	80000.00
5	Ankit	Kapoor	Admin	P2	Delhi(DEL)	1994-07-03	M	65000.00

5 rows in set (0.00 sec)

```
mysql> SELECT * FROM Employee
```

```
-> WHERE UPPER(Fname) LIKE 'S%';
```

```
+-----+-----+-----+-----+-----+-----+-----+-----+
| id | Fname | Lname | Department | Project | Address | DOB | Gender | salary_amount |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 1 | Sanjay | Mehra | HR | P1 | Hyderabad(HYD) | 1976-12-01 | M | 60000.00 |
| 4 | Sonia | Kulkarni | HR | P4 | Hyderabad(HYD) | 1992-05-02 | F | 101000.00 |
+-----+-----+-----+-----+-----+-----+-----+-----+
2 rows in set (0.01 sec)
```

```
mysql> SELECT * FROM Employee
```

```
-> ORDER BY salary_amount DESC
```

```
-> LIMIT 5;
```

```
+-----+-----+-----+-----+-----+-----+-----+-----+
| id | Fname | Lname | Department | Project | Address | DOB | Gender | salary_amount |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 4 | Sonia | Kulkarni | HR | P2 | Hyderabad(HYD) | 1992-05-02 | F | 101000.00 |
| 3 | Rohan | Diwan | Account | P3 | Mumbai(BOM) | 1980-01-01 | M | 80000.00 |
| 5 | Ankit | Kapoor | Admin | P2 | Delhi(DEL) | 1994-07-03 | M | 65000.00 |
| 1 | Sanjay | Mehra | HR | P1 | Hyderabad(HYD) | 1976-12-01 | M | 60000.00 |
| 2 | Ananya | Mishra | Admin | P2 | Delhi(DEL) | 1968-05-02 | F | 10000.00 |
+-----+-----+-----+-----+-----+-----+-----+-----+
5 rows in set (0.02 sec)
```

```
mysql> SELECT CONCAT(Fname, ' ', Lname) AS fullname
```

```
-> FROM Employee;
```

```
+-----+
```

```
| fullname |
```

```
+-----+
```

```
| Sanjay mehra |
```

```
| Ananya mishra |
```

```
| Rohan diwan |
```

```
| Sonia kulkarni |
```

```
| Ankit kapoor |
```

```
+-----+
```

```
5 rows in set (0.01sec)
```

```
mysql> SELECT salary_amount
```

```
-> FROM Employee
```

```
-> ORDER BY salary_amount DESC
```

```
-> LIMIT 1, 2;
```

```
+-----+
```

```
| salary_amount |
```

```
+-----+
```

```
| 80000.00 |
```

```
| 65000.00 |
```

```
+-----+
```

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


UNIQUE KEY:

```
mysql> CREATE TABLE Student (student_id INT PRIMARY KEY,first_name  
VARCHAR(50),last_name VARCHAR(50),email VARCHAR(100) UNIQUE,age INT);
```

Query OK, 0 rows affected (0.01 sec)

```
mysql> INSERT INTO Student (student_id, first_name, last_name, email, age)
```

-> VALUES

-> (1, 'lucky', 'sai', 'lucky.sai@example.com', 20),

-> (2, 'lilly', 'sri', 'lilly.sri@example.com', 22),

-> (3, 'sita', 'mahalaxmi', 'sita.mahalaxmi@example.com', 21),

-> (4, 'ram', 'moham', 'ram.mohan@example.com', 19),

-> (5, 'jay', 'lila', 'jay.lila@example.com', 20);

Query OK, 5 rows affected (0.00 sec)

Records: 5 Duplicates: 0 Warnings: 0

```
mysql> SELECT * FROM Student;
```

student_id	first_name	last_name	email	age
1	lucky	sai	lucky.sai@example.com	20
2	lilly	sri	lilly.sri@example.com	22
3	sita	mahalaxmi	sita.mahalaxmi@example.com	21
4	ram	moham	ram.mohan@example.com	19
5	jay	lila	jay.lila@example.com	20

5 rows in set (0.00 sec)

PRIMARY KEY:

```
mysql> CREATE TABLE Books (  
  -> book_id INT PRIMARY KEY,  
  -> title VARCHAR(100),  
  -> author VARCHAR(100),  
  -> publication_year INT );
```

Query OK, 0 rows affected (0.01 sec)

```
mysql> INSERT INTO Books (book_id, title, author, publication_year)  
  -> VALUES  
  -> (1, 'To Kill a Mockingbird', 'Harper Lee', 1960),  
  -> (2, '1984', 'George Orwell', 1949),  
  -> (3, 'The Great Gatsby', 'F. Scott Fitzgerald', 1925),  
  -> (4, 'Pride and Prejudice', 'Jane Austen', 1813),  
  -> (5, 'The Catcher in the Rye', 'J.D. Salinger', 1951);
```

Query OK, 5 rows affected (0.00 sec)

Records: 5 Duplicates: 0 Warnings: 0

```
mysql> SELECT * FROM Books;
```

book_id	title	author	publication_year
1	To Kill a Mockingbird	Harper Lee	1960
2	1984	George Orwell	1949
3	The Great Gatsby	F. Scott Fitzgerald	1925
4	Pride and Prejudice	Jane Austen	1813
5	The Catcher in the Rye	J.D. Salinger	1951

5 rows in set (0.00 sec)

FOREIGN KEY:

```
mysql> CREATE TABLE Departments (
```

```
-> department_id INT PRIMARY KEY,
```

```
-> department_name VARCHAR(100)
```

```
-> );
```

Query OK, 0 rows affected (0.01 sec)

```
mysql> CREATE TABLE Managers (
```

```
-> manager_id INT PRIMARY KEY,
```

```
-> manager_name VARCHAR(100),
```

```
-> department_id INT,
```

```
-> FOREIGN KEY (department_id) REFERENCES Departments(department_id)
```

```
-> );
```

Query OK, 0 rows affected (0.01 sec)

```
mysql> INSERT INTO Departments (department_id, department_name)
```

```
-> VALUES
```

```
-> (1, 'HR'),
```

```
-> (2, 'Finance'),
```

```
-> (3, 'Marketing'),
```

```
-> (4, 'IT'),
```

```
-> (5, 'Operations');
```

Query OK, 5 rows affected (0.00 sec)

Records: 5 Duplicates: 0 Warnings: 0

```
mysql> SELECT * FROM Departments;
```

```
+-----+-----+
| department_id | department_name |
+-----+-----+
|          1 | HR              |
|          2 | Finance         |
|          3 | Marketing       |
|          4 | IT              |
|          5 | Operations      |
+-----+-----+
```

5 rows in set (0.00 sec)

```
mysql> INSERT INTO Managers (manager_id, manager_name, department_id)
```

```
-> VALUES
```

```
-> (1, 'LILLY SRI', 1),
```

```
-> (2, 'LUCKY BITTU', 2),
```

```
-> (3, 'CHINMAI SAI', 3),
```

```
-> (4, 'ADVIK SAI' , 4),
```

```
-> (5, 'MOKSHA SRI', 5);
```

Query OK, 5 rows affected (0.00 sec)

Records: 5 Duplicates: 0 Warnings: 0

```
mysql> SELECT * FROM Managers;
```

manager_id	manager_name	department_id
1	LILLY SRI	1
2	LUCKY BITTU	2
3	CHINMAI SAI	3
4	ADVIK SAI	4
5	MOKSHA SRI	5

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