

## SQL Queries

Enter password: \*\*\*\*\*  
Welcome to the MySQL monitor. Commands end with ; or \g.  
Your MySQL connection id is 18  
Server version: 8.0.33 MySQL Community Server - GPL

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Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

### Creating & using Database

```
mysql> use mydb;
Database changed
mysql> show tables;
+-----+
| Tables_in_mydb |
+-----+
| student        |
| tbl_countries  |
| tbl_dup_countries |
| tbl_jobs       |
+-----+
4 rows in set (0.01 sec)
```

### Create Table

```
mysql> create table tbl_employee(eid int(5),ename varchar(20),esalary int(5));
Query OK, 0 rows affected, 2 warnings (0.03 sec)
```

### Describing Table Details

```
mysql> desc_employee;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'desc_employee' at line 1
mysql> desc tbl_employee;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| eid   | int           | YES  |     | NULL    |       |
| ename | varchar(20)   | YES  |     | NULL    |       |
| esalary | int         | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

### Inserting data into the Table

```
mysql> insert into tbl_employee values(01,'Sankar',2000);
Query OK, 1 row affected (0.00 sec)
```

```
mysql> insert into tbl_employee values(1,'Aravind',3000);
Query OK, 1 row affected (0.00 sec)
```

```
mysql> insert into tbl_employee values(02,'Madhan',4000);
Query OK, 1 row affected (0.00 sec)
```

### Displaying the Table

```
mysql> select * from tbl_employee;
+-----+-----+-----+
| eid | ename   | esalary |
+-----+-----+-----+
| 1   | Sankar  | 2000    |
| 1   | Aravind | 3000    |
| 2   | Madhan  | 4000    |
+-----+-----+-----+
3 rows in set (0.00 sec)
```

### Inserting Null Values

```
mysql> insert into tbl_employee values(02,null,5000);
Query OK, 1 row affected (0.00 sec)
```

```
mysql> insert into tbl_employee (eid,ename) values(4,'Dom');
Query OK, 1 row affected (0.01 sec)
```

```
mysql> select * from tbl_employee;
```

```
+-----+-----+-----+
| eid | ename | esalary |
+-----+-----+-----+
| 1 | Sankar | 2000 |
| 1 | Aravind | 3000 |
| 2 | Madhan | 4000 |
| 2 | NULL | 5000 |
| 4 | Dom | NULL |
+-----+-----+-----+
```

5 rows in set (0.00 sec)

### Update Table

```
mysql> update tbl_employee set eid=2 where ename='Aravind';
Query OK, 1 row affected (0.00 sec)
Rows matched: 1 Changed: 1 Warnings: 0
```

```
mysql> update tbl_employee set eid=3 where ename='Madhan';
Query OK, 1 row affected (0.00 sec)
Rows matched: 1 Changed: 1 Warnings: 0
```

```
mysql> update tbl_employee set eid=4 where esalary=5000;
Query OK, 1 row affected (0.00 sec)
Rows matched: 1 Changed: 1 Warnings: 0
```

```
mysql> update tbl_employee set eid=5 where ename='Dom';
Query OK, 1 row affected (0.00 sec)
Rows matched: 1 Changed: 1 Warnings: 0
```

```
mysql> select * from tbl_employee;
```

```
+-----+-----+-----+
| eid | ename | esalary |
+-----+-----+-----+
| 1 | Sankar | 2000 |
| 2 | Aravind | 3000 |
| 3 | Madhan | 4000 |
| 4 | NULL | 5000 |
| 5 | Dom | NULL |
+-----+-----+-----+
```

5 rows in set (0.00 sec)

### CONSTRAINTS

#### Display particular data (column) from the Table

```
mysql> select eid,esalary from tbl_employees;
ERROR 1146 (42S02): Table 'mydb.tbl_employees' doesn't exist
mysql> select eid,esalary from tbl_employee;
```

```
+-----+-----+
| eid | esalary |
+-----+-----+
| 1 | 2000 |
| 2 | 3000 |
| 3 | 4000 |
| 4 | 5000 |
| 5 | NULL |
+-----+-----+
```

5 rows in set (0.00 sec)

#### Display data using Conditions (Where & Arithmetic operators)

```
mysql> select *from tbl_employee where esalary>2000;
```

```

+-----+-----+-----+
| eid |  | ename |  | esalary |
+-----+-----+-----+
| 2 |  | Aravind |  | 3000 |
| 3 |  | Madhan |  | 4000 |
| 4 |  | NULL |  | 5000 |
+-----+-----+-----+
3 rows in set (0.00 sec)

```

```

mysql> select *from tbl_employee where esalary>=2000;
+-----+-----+-----+
| eid |  | ename |  | esalary |
+-----+-----+-----+
| 1 |  | Sankar |  | 2000 |
| 2 |  | Aravind |  | 3000 |
| 3 |  | Madhan |  | 4000 |
| 4 |  | NULL |  | 5000 |
+-----+-----+-----+
4 rows in set (0.00 sec)

```

```

mysql> select *from tbl_employee where esalary<=2000;
+-----+-----+-----+
| eid |  | ename |  | esalary |
+-----+-----+-----+
| 1 |  | Sankar |  | 2000 |
+-----+-----+-----+
1 row in set (0.00 sec)

```

```

mysql> select * from tbl_employee where ename='Dom';
+-----+-----+-----+
| eid |  | ename |  | esalary |
+-----+-----+-----+
| 5 |  | Dom |  | NULL |
+-----+-----+-----+
1 row in set (0.00 sec)

```

```

mysql> select * from tbl_employee where ename!='Dom';
+-----+-----+-----+
| eid |  | ename |  | esalary |
+-----+-----+-----+
| 1 |  | Sankar |  | 2000 |
| 2 |  | Aravind |  | 3000 |
| 3 |  | Madhan |  | 4000 |
+-----+-----+-----+
3 rows in set (0.00 sec)

```

#### Display data using Conditions (Where & null)

```

mysql> select * from tbl_employee where ename=null;
Empty set (0.00 sec)

```

#### Using (is null, is not null)

```

mysql> select * from tbl_employee where ename is null;
+-----+-----+-----+
| eid |  | ename |  | esalary |
+-----+-----+-----+
| 4 |  | NULL |  | 5000 |
+-----+-----+-----+
1 row in set (0.00 sec)

```

```

mysql> select * from tbl_employee where ename is not null;
+-----+-----+-----+
| eid |  | ename |  | esalary |
+-----+-----+-----+
| 1 |  | Sankar |  | 2000 |
| 2 |  | Aravind |  | 3000 |
| 3 |  | Madhan |  | 4000 |
| 5 |  | Dom |  | NULL |

```

```
+-----+-----+-----+
4 rows in set (0.00 sec)
```

**Using (is null, is not null) (or, and)**

```
mysql> select * from tbl_employee where ename is not null or esalary=3000;
```

```
+-----+-----+-----+
| eid | ename | esalary |
+-----+-----+-----+
| 1 | Sankar | 2000 |
| 2 | Aravind | 3000 |
| 3 | Madhan | 4000 |
| 5 | Dom | NULL |
+-----+-----+-----+
4 rows in set (0.00 sec)
```

```
mysql> select * from tbl_employee where ename is not null and esalary=3000;
```

```
+-----+-----+-----+
| eid | ename | esalary |
+-----+-----+-----+
| 2 | Aravind | 3000 |
+-----+-----+-----+
1 row in set (0.00 sec)
```

```
mysql> select * from tbl_employee where ename is not null and esalary is null;
```

```
+-----+-----+-----+
| eid | ename | esalary |
+-----+-----+-----+
| 5 | Dom | NULL |
+-----+-----+-----+
1 row in set (0.00 sec)
```

```
mysql> select * from tbl_employee where ename is null and esalary is null;
Empty set (0.00 sec)
```

**(Using in, not in)**

```
mysql> select * from tbl_employee where eid in(1,4,2,6);
```

```
+-----+-----+-----+
| eid | ename | esalary |
+-----+-----+-----+
| 1 | Sankar | 2000 |
| 2 | Aravind | 3000 |
| 4 | NULL | 5000 |
+-----+-----+-----+
3 rows in set (0.00 sec)
```

```
mysql> select * from tbl_employee where eid not in(1,4,2,6);
```

```
+-----+-----+-----+
| eid | ename | esalary |
+-----+-----+-----+
| 3 | Madhan | 4000 |
| 5 | Dom | NULL |
+-----+-----+-----+
2 rows in set (0.00 sec)
```

```
mysql> select * from tbl_employe;
```

ERROR 1146 (42S02): Table 'mydb.tbl\_employe' doesn't exist

```
mysql> select * from tbl_employee;
```

```
+-----+-----+-----+
| eid | ename | esalary |
+-----+-----+-----+
| 1 | Sankar | 2000 |
| 2 | Aravind | 3000 |
| 3 | Madhan | 4000 |
| 4 | NULL | 5000 |
| 5 | Dom | NULL |
+-----+-----+-----+
5 rows in set (0.00 sec)
```

**(Using between, not between)**

```
mysql> select * from tbl_employee where esalary between 2000 and 4000;
```

```
+-----+-----+-----+
| eid  |  ename  | esalary |
+-----+-----+-----+
|    1 | Sankar  |    2000 |
|    2 | Aravind |    3000 |
|    3 | Madhan  |    4000 |
+-----+-----+-----+
3 rows in set (0.00 sec)
```

```
mysql> select * from tbl_employee where esalary not between 2000 and 4000;
```

```
+-----+-----+-----+
| eid  |  ename  | esalary |
+-----+-----+-----+
|    4 | NULL    |    5000 |
+-----+-----+-----+
1 row in set (0.00 sec)
```

```
mysql> select * from tbl_employee;
```

```
+-----+-----+-----+
| eid  |  ename  | esalary |
+-----+-----+-----+
|    1 | Sankar  |    2000 |
|    2 | Aravind |    3000 |
|    3 | Madhan  |    4000 |
|    4 | NULL    |    5000 |
|    5 | Dom     |     NULL |
+-----+-----+-----+
5 rows in set (0.00 sec)
```

**(Using like, not like)**

```
mysql> select * from tbl_employee where ename like 'S%';
```

```
+-----+-----+-----+
| eid  |  ename  | esalary |
+-----+-----+-----+
|    1 | Sankar  |    2000 |
+-----+-----+-----+
1 row in set (0.00 sec)
```

```
mysql> select * from tbl_employee where ename like '_a%';
```

```
+-----+-----+-----+
| eid  |  ename  | esalary |
+-----+-----+-----+
|    1 | Sankar  |    2000 |
|    3 | Madhan  |    4000 |
+-----+-----+-----+
2 rows in set (0.00 sec)
```

```
mysql> select * from tbl_employee where ename not like '_a%';
```

```
+-----+-----+-----+
| eid  |  ename  | esalary |
+-----+-----+-----+
|    2 | Aravind |    3000 |
|    5 | Dom     |     NULL |
+-----+-----+-----+
2 rows in set (0.00 sec)
```

```
mysql> select * from tbl_employee;
```

```
+-----+-----+-----+
| eid  |  ename  | esalary |
+-----+-----+-----+
|    1 | Sankar  |    2000 |
|    2 | Aravind |    3000 |
|    3 | Madhan  |    4000 |
|    4 | NULL    |    5000 |
```

```
|      5 | Dom      |      NULL |
+-----+-----+-----+
5 rows in set (0.00 sec)
```

### Commit (Command)

```
mysql> commit;
Query OK, 0 rows affected (0.00 sec)

mysql> update tbl_employee set esalary=0;
Query OK, 5 rows affected (0.01 sec)
Rows matched: 5  Changed: 5  Warnings: 0
```

```
mysql> select * from tbl_employee;
+-----+-----+-----+
| eid  | ename   | esalary |
+-----+-----+-----+
| 1    | Sankar  | 0       |
| 2    | Aravind | 0       |
| 3    | Madhan  | 0       |
| 4    | NULL    | 0       |
| 5    | Dom     | 0       |
+-----+-----+-----+
5 rows in set (0.00 sec)
```

### Rollback (Command)

```
mysql> rollback;
Query OK, 0 rows affected (0.00 sec)
```

```
mysql> select * from tbl_employee;
+-----+-----+-----+
| eid  | ename   | esalary |
+-----+-----+-----+
| 1    | Sankar  | 0       |
| 2    | Aravind | 0       |
| 3    | Madhan  | 0       |
| 4    | NULL    | 0       |
| 5    | Dom     | 0       |
+-----+-----+-----+
5 rows in set (0.00 sec)
```

### Checking Autocommit

```
mysql> select @@autocorrect from dual;
ERROR 1193 (HY000): Unknown system variable 'autocorrect'
mysql> select @@autocommit from dual;
+-----+
| @@autocommit |
+-----+
| 1             |
+-----+
1 row in set (0.00 sec)
```

### Manual commit

```
mysql> set autocommit=0;
Query OK, 0 rows affected (0.00 sec)

mysql> select @@autocommit from dual;
+-----+
| @@autocommit |
+-----+
| 0             |
+-----+
1 row in set (0.00 sec)
```

```
mysql> select * from tbl_employee;
+-----+-----+-----+
```

eid	ename	esalary
1	Sankar	0
2	Aravind	0
3	Madhan	0
4	NULL	0
5	Dom	0

5 rows in set (0.00 sec)

**Update table**

```
mysql> update tbl_employee set esalary=1000 where eid=1;
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0
```

```
mysql> select * from tbl_employee;
```

eid	ename	esalary
1	Sankar	1000
2	Aravind	0
3	Madhan	0
4	NULL	0
5	Dom	0

5 rows in set (0.00 sec)

```
mysql> rollback;
Query OK, 0 rows affected (0.00 sec)
```

```
mysql> select * from tbl_employee;
```

eid	ename	esalary
1	Sankar	0
2	Aravind	0
3	Madhan	0
4	NULL	0
5	Dom	0

5 rows in set (0.00 sec)

```
mysql> update tbl_employee set esalary=2000;
Query OK, 5 rows affected (0.00 sec)
Rows matched: 5  Changed: 5  Warnings: 0
```

```
mysql> select * from tbl_employee;
```

eid	ename	esalary
1	Sankar	2000
2	Aravind	2000
3	Madhan	2000
4	NULL	2000
5	Dom	2000

5 rows in set (0.00 sec)

```
mysql> commit;
Query OK, 0 rows affected (0.00 sec)
```

```
mysql> rollback;
Query OK, 0 rows affected (0.00 sec)
```

```
mysql> select * from tbl_employee;
```

eid	ename	esalary
-----	-------	---------

```

+-----+-----+-----+
| 1 | Sankar | 2000 |
| 2 | Aravind | 2000 |
| 3 | Madhan | 2000 |
| 4 | NULL | 2000 |
| 5 | Dom | 2000 |
+-----+-----+-----+
5 rows in set (0.00 sec)

```

```

mysql> update tbl_employee set name=null,esalary=0 where eid in(1,3,6);
ERROR 1054 (42S22): Unknown column 'name' in 'field list'
mysql> update tbl_employee set ename=null,esalary=0 where eid in(1,3,6);
Query OK, 2 rows affected (0.00 sec)
Rows matched: 2  Changed: 2  Warnings: 0

```

```

mysql> select * from tbl_employee;
+-----+-----+-----+
| eid | ename | esalary |
+-----+-----+-----+
| 1 | NULL | 0 |
| 2 | Aravind | 2000 |
| 3 | NULL | 0 |
| 4 | NULL | 2000 |
| 5 | Dom | 2000 |
+-----+-----+-----+
5 rows in set (0.00 sec)

```

```

mysql> select * from tbl_employee where id=1;
ERROR 1054 (42S22): Unknown column 'id' in 'where clause'
mysql> select * from tbl_employee where eid=1;
+-----+-----+-----+
| eid | ename | esalary |
+-----+-----+-----+
| 1 | NULL | 0 |
+-----+-----+-----+
1 row in set (0.00 sec)

```

```

mysql> rollback;
Query OK, 0 rows affected (0.00 sec)

```

```

mysql> select * from tbl_employee;
+-----+-----+-----+
| eid | ename | esalary |
+-----+-----+-----+
| 1 | Sankar | 2000 |
| 2 | Aravind | 2000 |
| 3 | Madhan | 2000 |
| 4 | NULL | 2000 |
| 5 | Dom | 2000 |
+-----+-----+-----+
5 rows in set (0.00 sec)

```

```

mysql> select * from tbl_employee where eid=1;
+-----+-----+-----+
| eid | ename | esalary |
+-----+-----+-----+
| 1 | Sankar | 2000 |
+-----+-----+-----+
1 row in set (0.00 sec)

```

#### Delete data from the Table

```

mysql> delete from tbl_employee where eid=1;
Query OK, 1 row affected (0.00 sec)

```

```

mysql> select * from tbl_employee;
+-----+-----+-----+
| eid | ename | esalary |

```



+-----+-----+-----+			
	2	Aravind	2000
	3	Madhan	2000
	4	NULL	2000
	5	Dom	2000
+-----+-----+-----+			
4 rows in set (0.00 sec)			