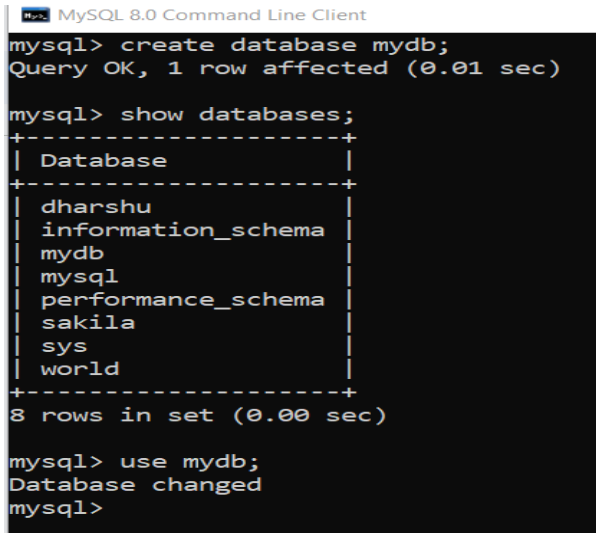
Data Definition Language .

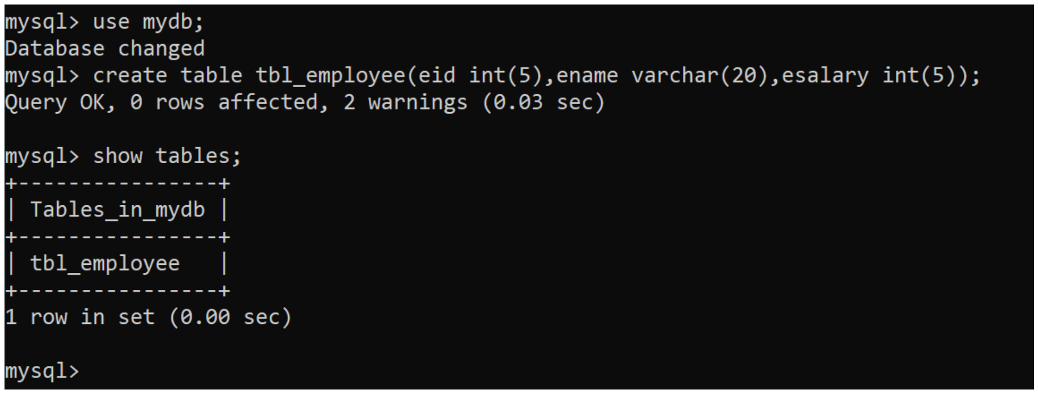
- Create a database.
- Show database.(show all your databases).
- Use a database.



MySQL 8.0 Command Line Client

```
mysql> create database mydb;
Query OK, 1 row affected (0.01 sec)

mysql> show databases;
+--------------------+
| Database           |
+--------------------+
| dharshu            |
| information_schema |
| mydb               |
| mysql              |
| performance_schema |
| sakila             |
| sys                |
| world              |
+--------------------+
8 rows in set (0.00 sec)

mysql> use mydb;
Database changed
mysql>
```

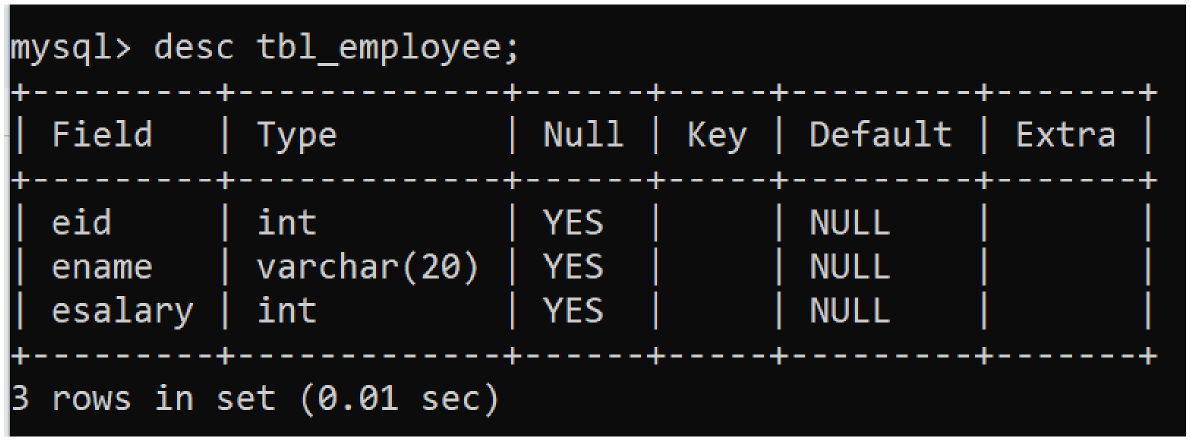
- Create a table.
- Show tables;(show the created tables).



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

mysql> show tables;
+----------------+
| Tables_in_mydb |
+----------------+
| tbl_employee   |
+----------------+
1 row in set (0.00 sec)

mysql>
```

- Desc cmd to describe the table structure.

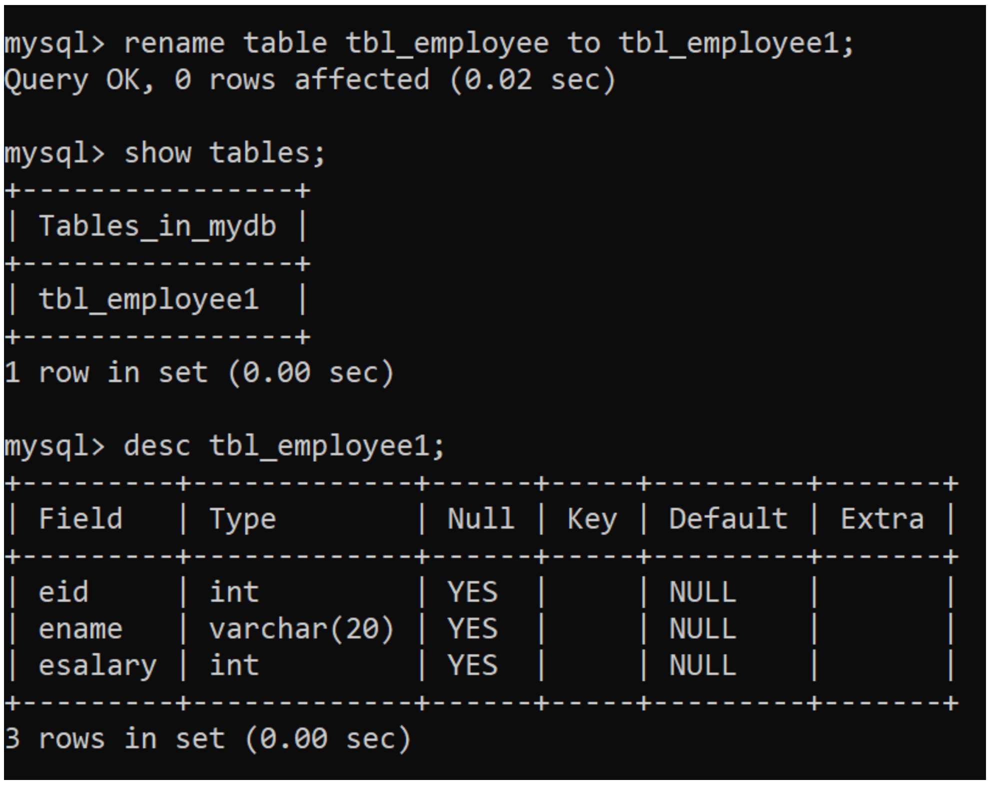
desc table_name. (or) describe table_name;



```
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 (0.01 sec)
```

- Rename the table

rename table current table_name to new table_name;
Show tables; --> used to verify the changes.

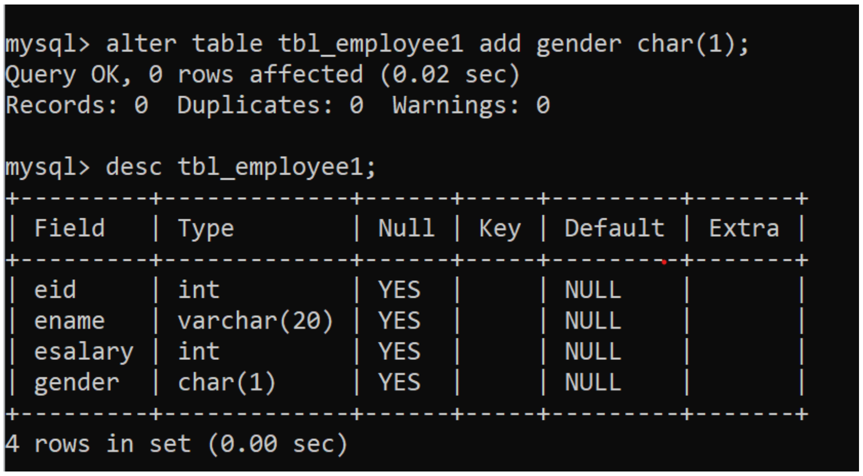


```
mysql> rename table tbl_employee to tbl_employee1;
Query OK, 0 rows affected (0.02 sec)

mysql> show tables;
+----------------+
| Tables_in_mydb |
+----------------+
| tbl_employee1  |
+----------------+
1 row in set (0.00 sec)

mysql> desc tbl_employee1;
+---------+-------------+------+-----+---------+-------+
| 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)
```

- Drop table table_name (along with the data) → to delete a table.
- Drop database database_name; —-> to delete a database.

- Alter cmd is used to add or modify the table contents.

alter table table_name add field data type(range); (adding new column)

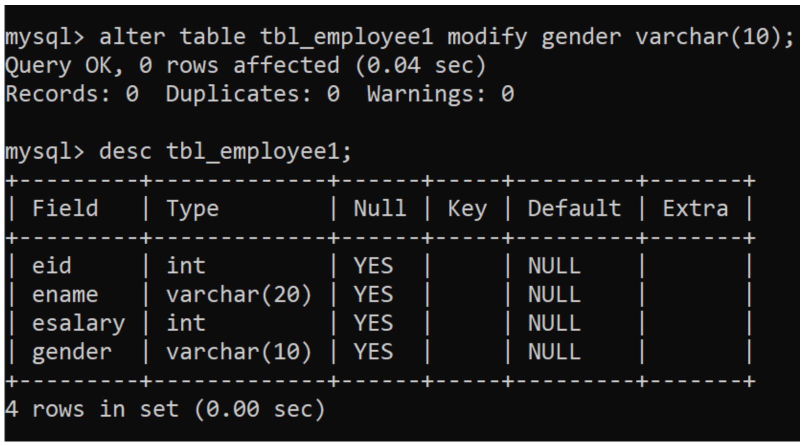


```
mysql> alter table tbl_employee1 add gender char(1);
Query OK, 0 rows affected (0.02 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> desc tbl_employee1;
+---------+-------------+------+-----+---------+-------+
| Field   | Type        | Null | Key | Default | Extra |
+---------+-------------+------+-----+---------+-------+
| eid     | int         | YES  |     | NULL    |       |
| ename   | varchar(20) | YES  |     | NULL    |       |
| esalary | int         | YES  |     | NULL    |       |
| gender  | char(1)     | YES  |     | NULL    |       |
+---------+-------------+------+-----+---------+-------+
4 rows in set (0.00 sec)
```

- ★ Varchar —> Dynamic memory allocation.(check the length of the data).
- ★ Char —> Static memory allocation, fixed size , faster (no need to check the length of the data).

- Alter command is also used to update or modify or make any change in an existing column.

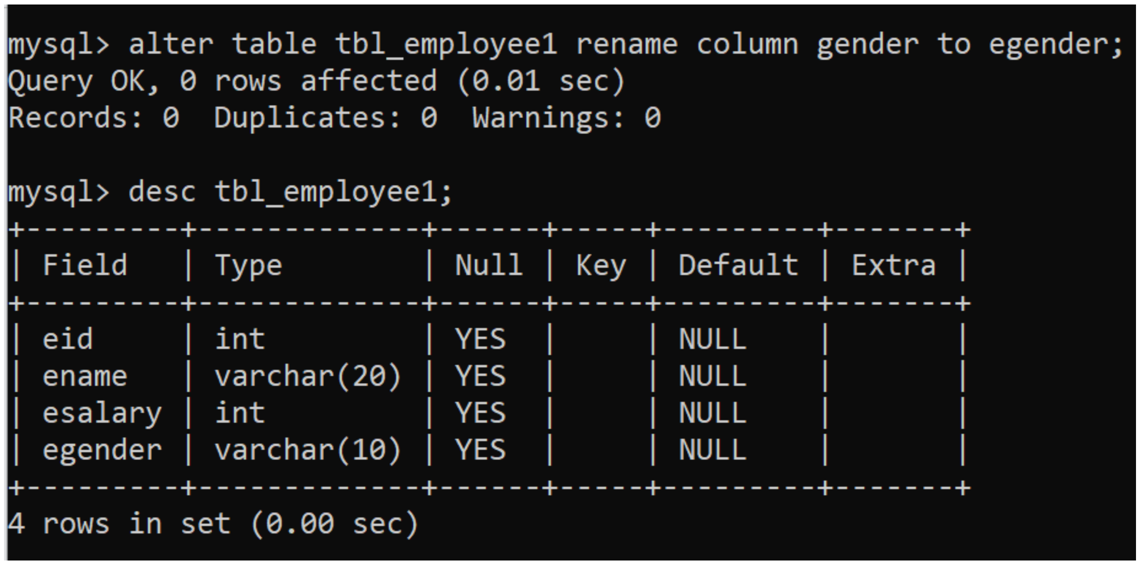
alter table table_name modify field data type(range);



```
mysql> alter table tbl_employee1 modify gender varchar(10);
Query OK, 0 rows affected (0.04 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> desc tbl_employee1;
+---------+-------------+------+-----+---------+-------+
| Field   | Type        | Null | Key | Default | Extra |
+---------+-------------+------+-----+---------+-------+
| eid     | int         | YES  |     | NULL    |       |
| ename   | varchar(20) | YES  |     | NULL    |       |
| esalary | int         | YES  |     | NULL    |       |
| gender  | varchar(10) | YES  |     | NULL    |       |
+---------+-------------+------+-----+---------+-------+
4 rows in set (0.00 sec)
```

- Alter command is used to rename the particular column in an existing table.

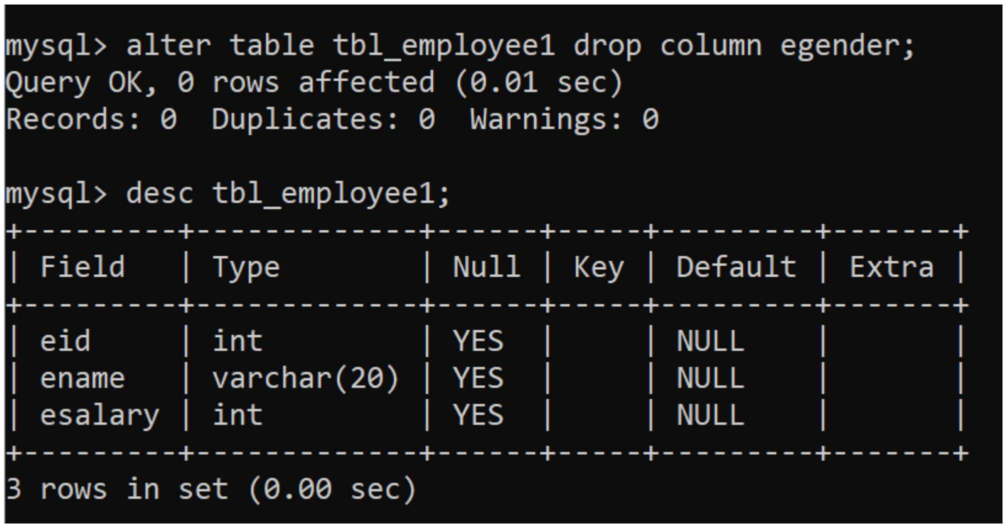
alter table table_name rename column oldfield to newfield;



```
mysql> alter table tbl_employee1 rename column gender to egender;
Query OK, 0 rows affected (0.01 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> desc tbl_employee1;
+---------+-------------+------+-----+---------+-------+
| Field   | Type        | Null | Key | Default | Extra |
+---------+-------------+------+-----+---------+-------+
| eid     | int         | YES  |     | NULL    |       |
| ename   | varchar(20) | YES  |     | NULL    |       |
| esalary | int         | YES  |     | NULL    |       |
| egender | varchar(10) | YES  |     | NULL    |       |
+---------+-------------+------+-----+---------+-------+
4 rows in set (0.00 sec)
```

- Alter command is to drop a particular column in an existing table.

alter table table_name drop column column_name;

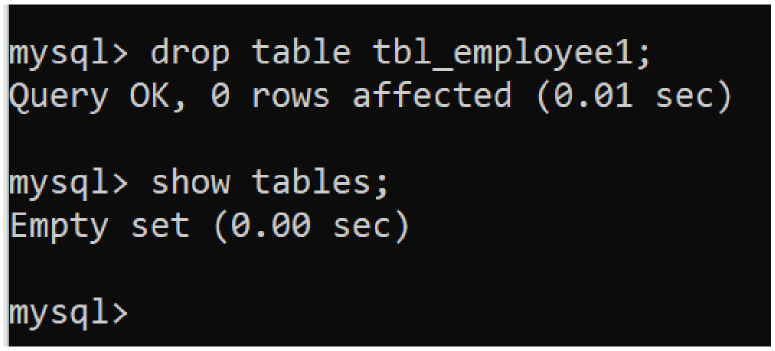


```
mysql> alter table tbl_employee1 drop column egender;
Query OK, 0 rows affected (0.01 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> desc tbl_employee1;
+---------+-------------+------+-----+---------+-------+
| 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)
```

- Drop Table:

Drop table table_name;

Show tables; —> to verify whether the table is deleted or not.



```
mysql> drop table tbl_employee1;
Query OK, 0 rows affected (0.01 sec)

mysql> show tables;
Empty set (0.00 sec)

mysql>
```

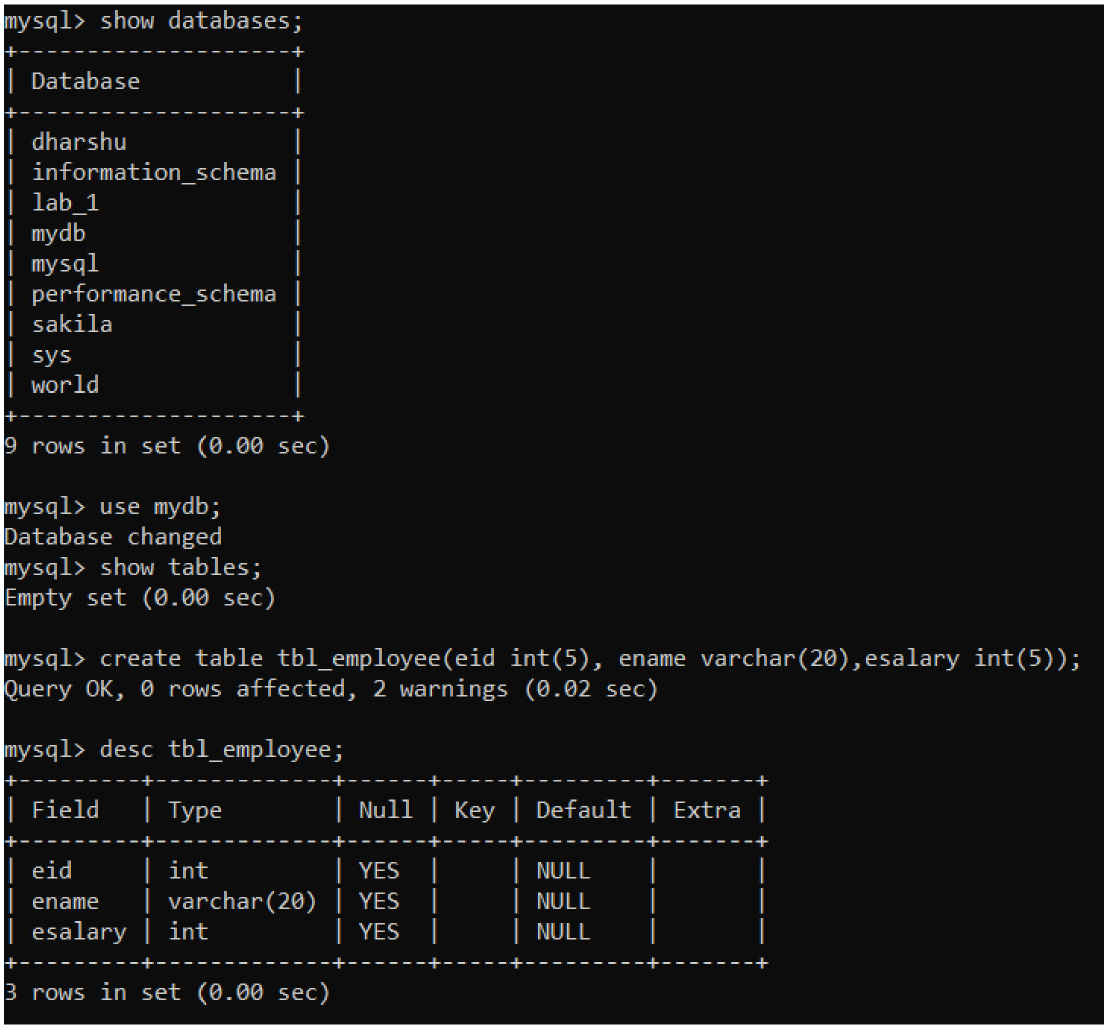
Data Manipulation Language:

Insert Query:

Syntax:

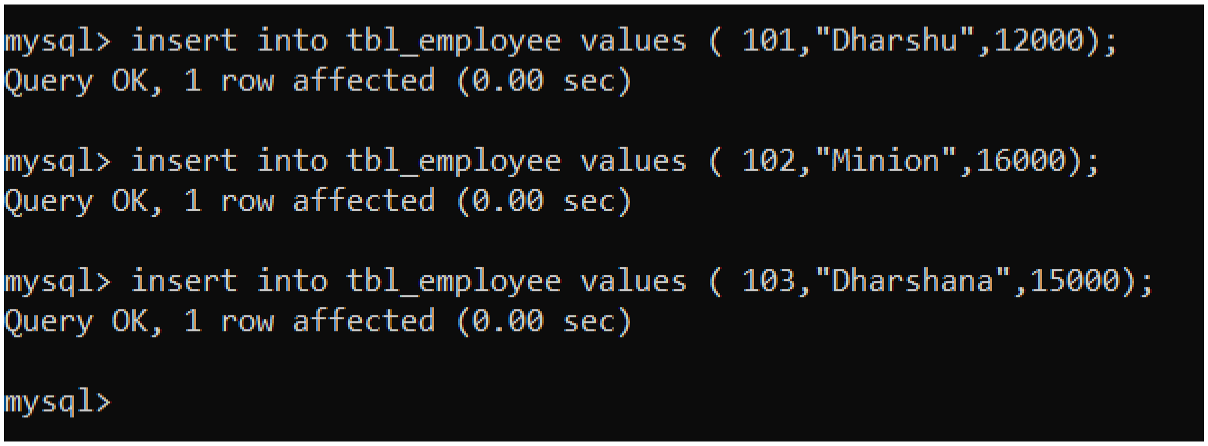
INSERT INTO table-name (column1,column2,...columnN) VALUES (value1,value2,value3,...valueN);

- To insert string data types, it is required to keep all the values into **double or single quotes**.



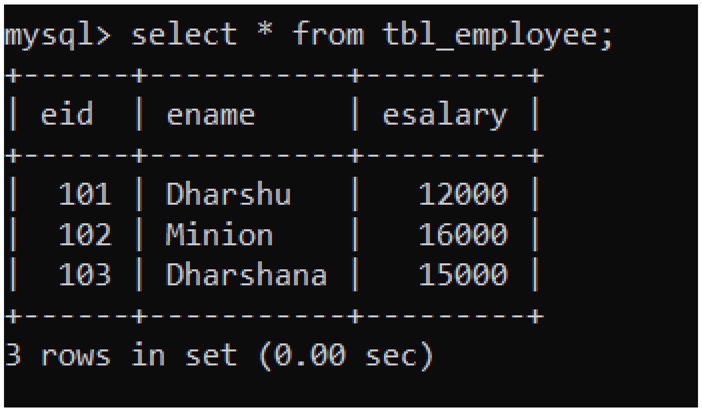
```
mysql> show databases;
+--------------------+
| Database           |
+--------------------+
| dharshu            |
| information_schema |
| lab_1              |
| mydb               |
| mysql              |
| performance_schema |
| sakila             |
| sys                |
| world              |
+--------------------+
9 rows in set (0.00 sec)

mysql> use mydb;
Database changed
mysql> show tables;
Empty set (0.00 sec)

mysql> create table tbl_employee(eid int(5), ename varchar(20),esalary int(5));
Query OK, 0 rows affected, 2 warnings (0.02 sec)

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)
```

- Insert Command : we can insert ‘n’ number of records in a table.

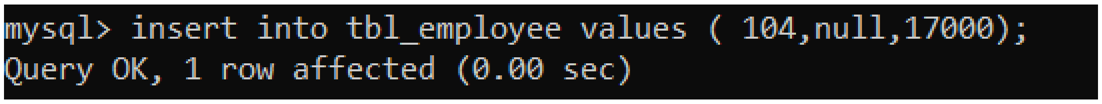


```
mysql> insert into tbl_employee values ( 101,"Dharshu",12000);
Query OK, 1 row affected (0.00 sec)

mysql> insert into tbl_employee values ( 102,"Minion",16000);
Query OK, 1 row affected (0.00 sec)

mysql> insert into tbl_employee values ( 103,"Dharshana",15000);
Query OK, 1 row affected (0.00 sec)

mysql>
```

- Display or view all the records in a table.

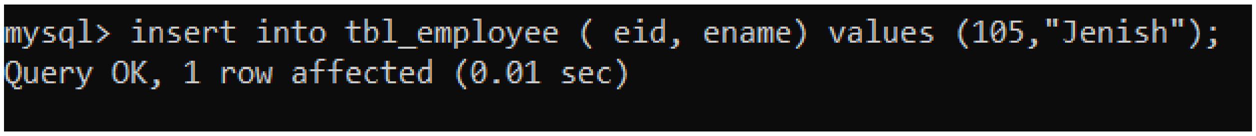

```
mysql> select * from tbl_employee;
+------+-----------+---------+
| eid  | ename     | esalary |
+------+-----------+---------+
|  101 | Dharshu   |   12000 |
|  102 | Minion    |   16000 |
|  103 | Dharshana |   15000 |
+------+-----------+---------+
3 rows in set (0.00 sec)
```

- Insert NULL value in the record.(NULL—> Empty,Blank)

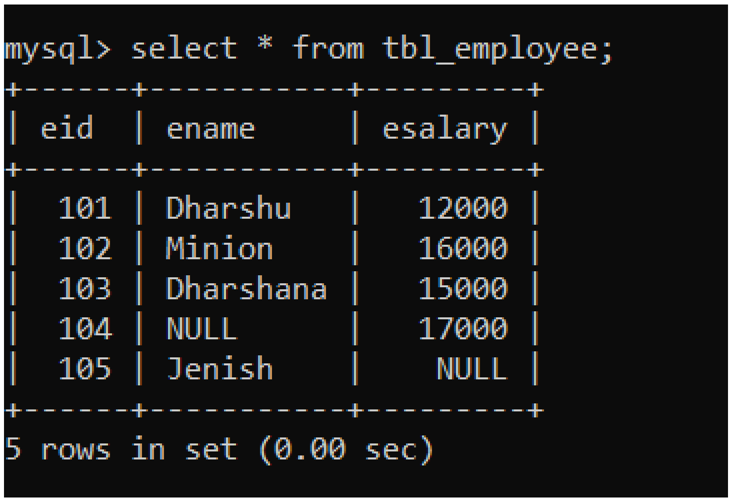

```
mysql> insert into tbl_employee values ( 104,null,17000);
Query OK, 1 row affected (0.00 sec)
```

Insert the record into a table using column name:

- The salary column become null because we can't specify the salary record.


```
mysql> insert into tbl_employee ( eid, ename) values (105,"Jenish");
Query OK, 1 row affected (0.01 sec)
```

- View The Table:


```
mysql> select * from tbl_employee;
+------+-----------+---------+
| eid  | ename     | esalary |
+------+-----------+---------+
|  101 | Dharshu   |   12000 |
|  102 | Minion    |   16000 |
|  103 | Dharshana |   15000 |
|  104 | NULL      |   17000 |
|  105 | Jenish    |    NULL |
+------+-----------+---------+
5 rows in set (0.00 sec)
```

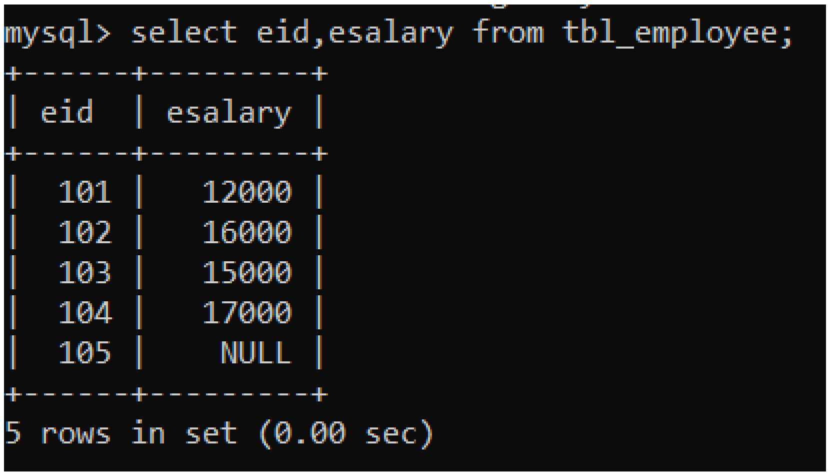
Select Query:

- Select command is used to fetch all the data from the MySql table.

Syntax:

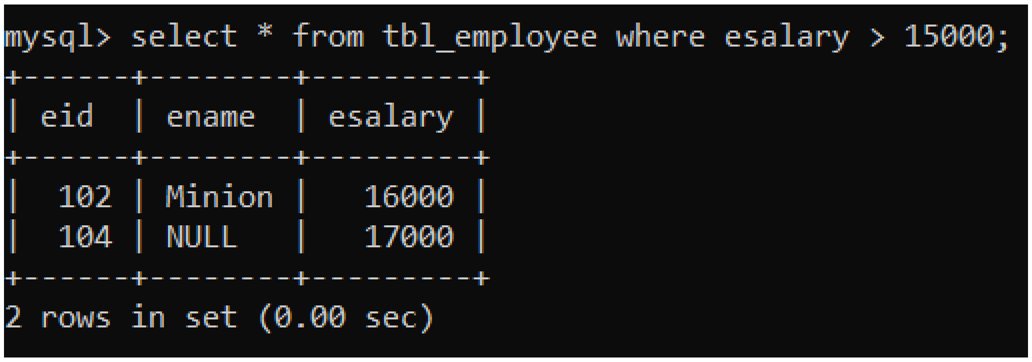
SELECT field1,field2,...fieldN
FROM table_name1,table_name2….
[WHERE Clause]
[OFFSET M] [LIMIT N]

- View Particular column using select Query:

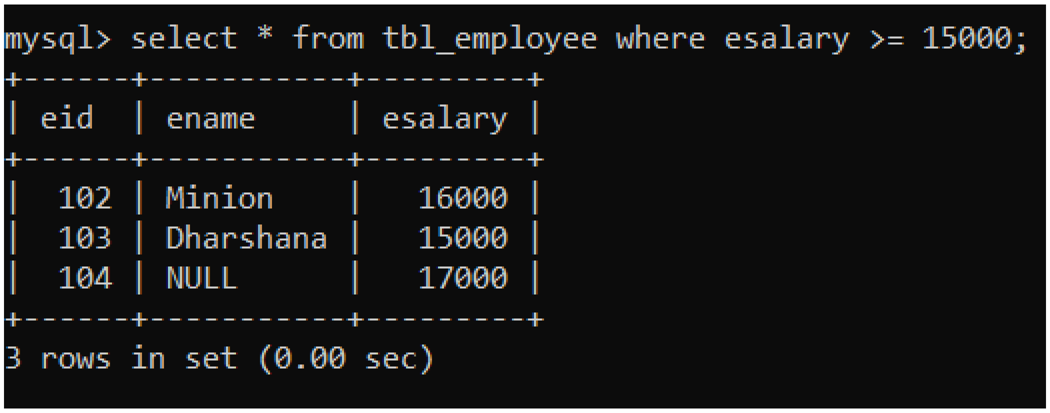


```
mysql> select eid,esalary from tbl_employee;
+------+---------+
| eid  | esalary |
+------+---------+
|  101 |   12000 |
|  102 |   16000 |
|  103 |   15000 |
|  104 |   17000 |
|  105 |    NULL |
+------+---------+
5 rows in set (0.00 sec)
```

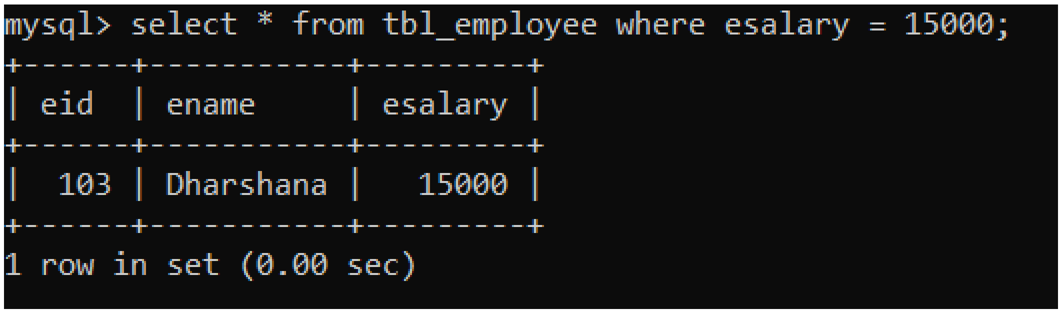
- Select Query using Where condition in salary.



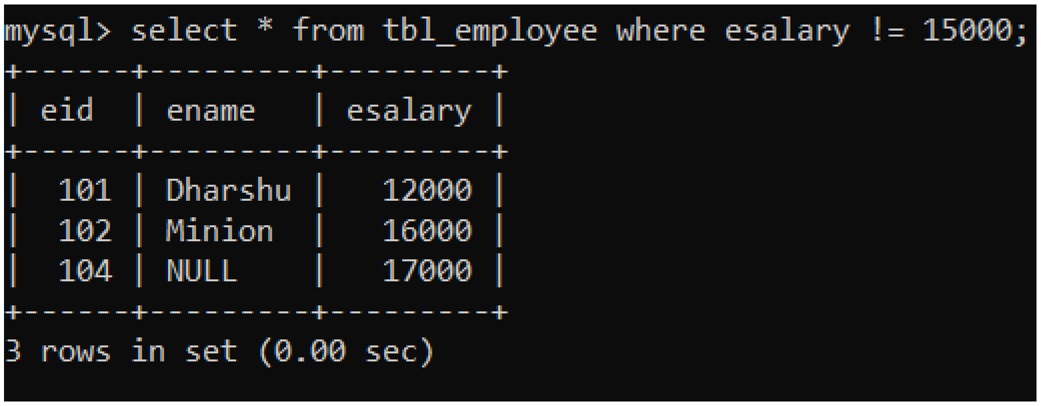
```
mysql> select * from tbl_employee where esalary > 15000;
+------+--------+---------+
| eid  | ename  | esalary |
+------+--------+---------+
|  102 | Minion |   16000 |
|  104 | NULL   |   17000 |
+------+--------+---------+
2 rows in set (0.00 sec)
```



```
mysql> select * from tbl_employee where esalary >= 15000;
+------+-----------+---------+
| eid  | ename     | esalary |
+------+-----------+---------+
|  102 | Minion    |   16000 |
|  103 | Dharshana |   15000 |
|  104 | NULL      |   17000 |
+------+-----------+---------+
3 rows in set (0.00 sec)
```



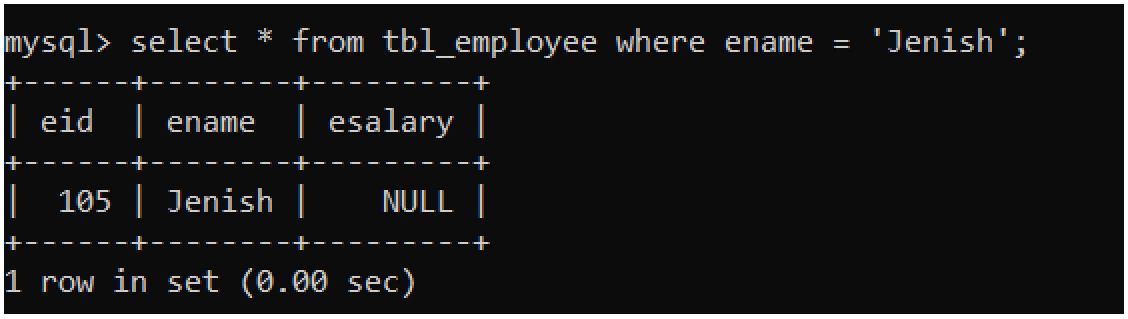
```
mysql> select * from tbl_employee where esalary = 15000;
+------+-----------+---------+
| eid  | ename     | esalary |
+------+-----------+---------+
|  103 | Dharshana |   15000 |
+------+-----------+---------+
1 row in set (0.00 sec)
```



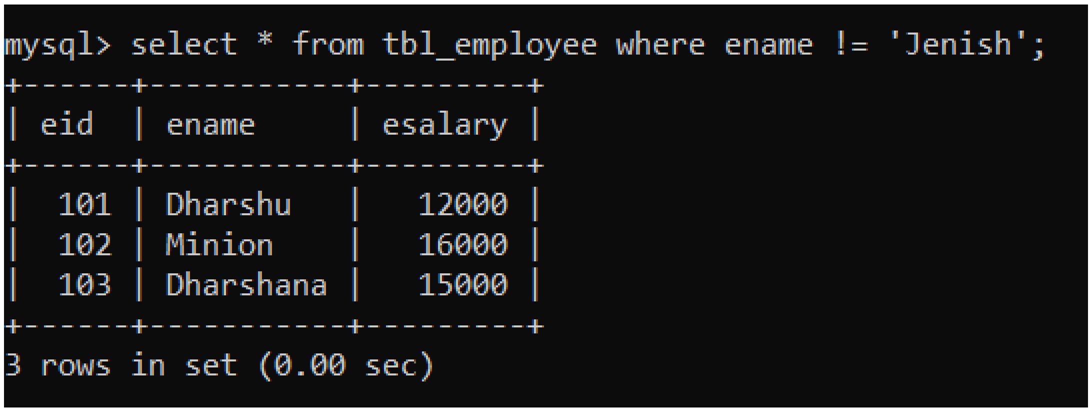
```
mysql> select * from tbl_employee where esalary != 15000;
+------+---------+---------+
| eid  | ename   | esalary |
+------+---------+---------+
|  101 | Dharshu |   12000 |
|  102 | Minion  |   16000 |
|  104 | NULL    |   17000 |
+------+---------+---------+
3 rows in set (0.00 sec)
```

By using relational operators or comparison operators we cannot compare the NULL value.

- Select Query using Where condition in Name.



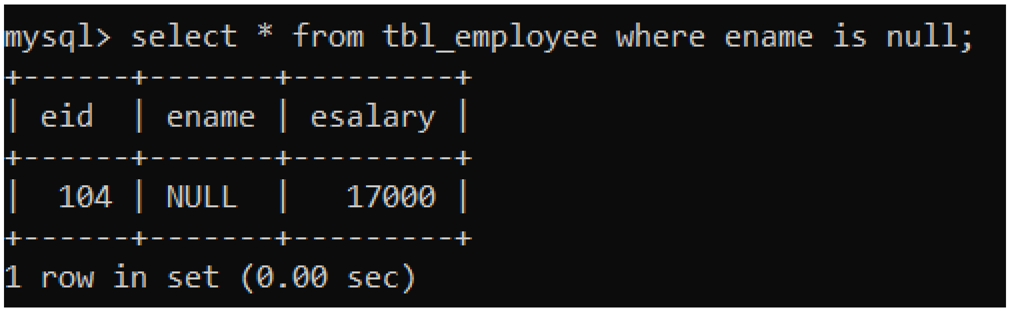
```
mysql> select * from tbl_employee where ename = 'Jenish';
+------+--------+---------+
| eid  | ename  | esalary |
+------+--------+---------+
|  105 | Jenish |    NULL |
+------+--------+---------+
1 row in set (0.00 sec)
```



```
mysql> select * from tbl_employee where ename != 'Jenish';
+------+-----------+---------+
| eid  | ename     | esalary |
+------+-----------+---------+
|  101 | Dharshu   |   12000 |
|  102 | Minion    |   16000 |
|  103 | Dharshana |   15000 |
+------+-----------+---------+
3 rows in set (0.00 sec)
```

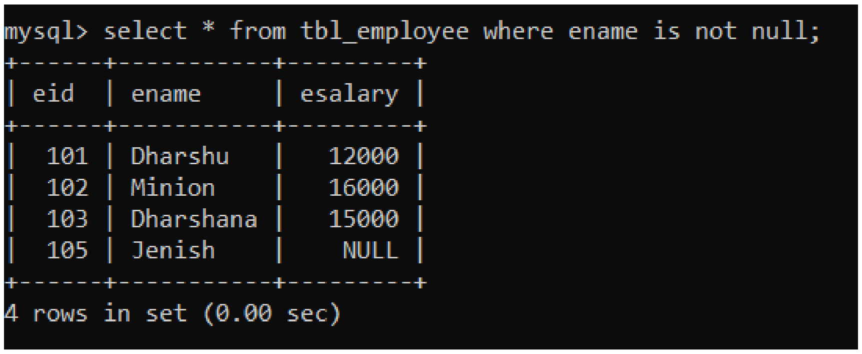
NULL Comparison:

- Is Null:



```
mysql> select * from tbl_employee where ename is null;
+------+-------+---------+
| eid  | ename | esalary |
+------+-------+---------+
|  104 | NULL  |   17000 |
+------+-------+---------+
1 row in set (0.00 sec)
```

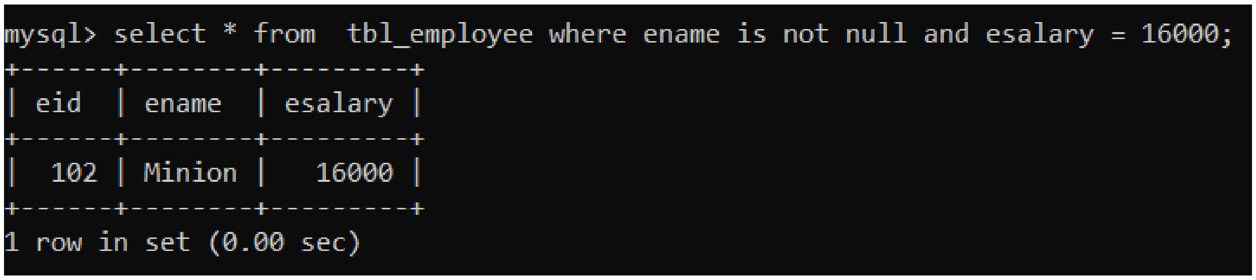
- Is Not Null:



```
mysql> select * from tbl_employee where ename is not null;
+------+-----------+---------+
| eid  | ename     | esalary |
+------+-----------+---------+
|  101 | Dharshu   |   12000 |
|  102 | Minion    |   16000 |
|  103 | Dharshana |   15000 |
|  105 | Jenish    |    NULL |
+------+-----------+---------+
4 rows in set (0.00 sec)
```

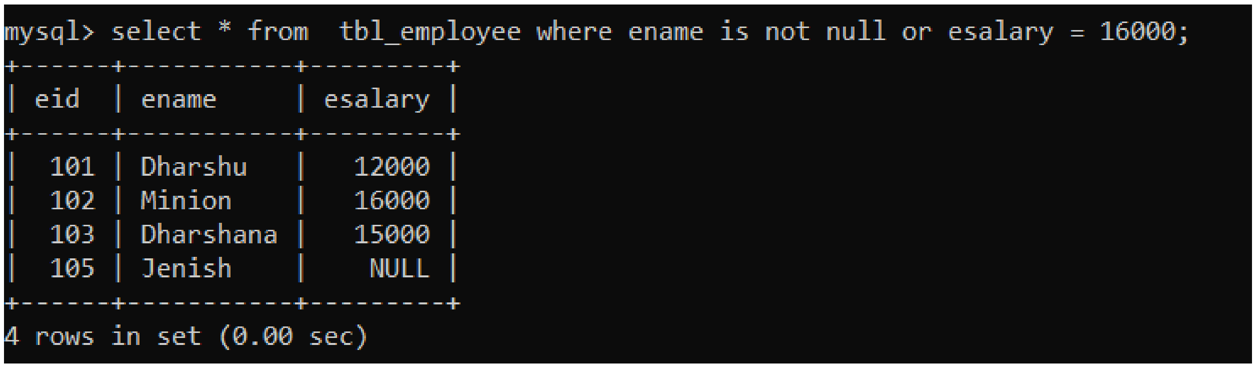
Applying 2 conditions:

- **And** condition



```
mysql> select * from  tbl_employee where ename is not null and esalary = 16000;
+------+--------+---------+
| eid  | ename  | esalary |
+------+--------+---------+
|  102 | Minion |   16000 |
+------+--------+---------+
1 row in set (0.00 sec)
```

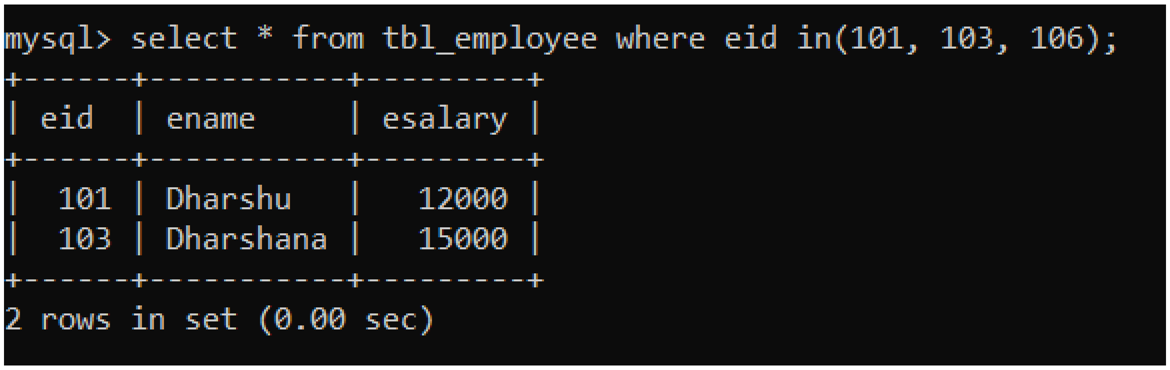
- **Or** condition



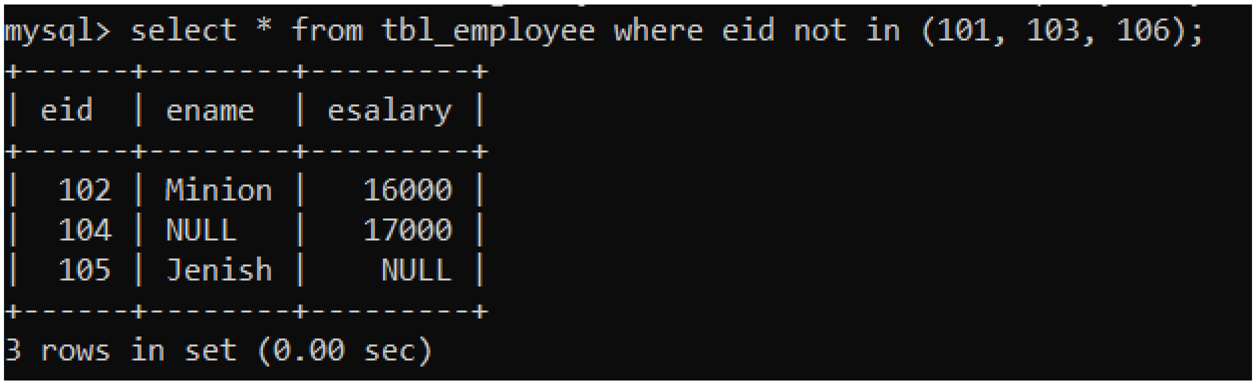
```
mysql> select * from  tbl_employee where ename is not null or esalary = 16000;
+------+-----------+---------+
| eid  | ename     | esalary |
+------+-----------+---------+
|  101 | Dharshu   |   12000 |
|  102 | Minion    |   16000 |
|  103 | Dharshana |   15000 |
|  105 | Jenish    |    NULL |
+------+-----------+---------+
4 rows in set (0.00 sec)
```

- By using the **“in”** operator we can display the list of records.

If the given eid is present in the table it will display the record otherwise it will not display.



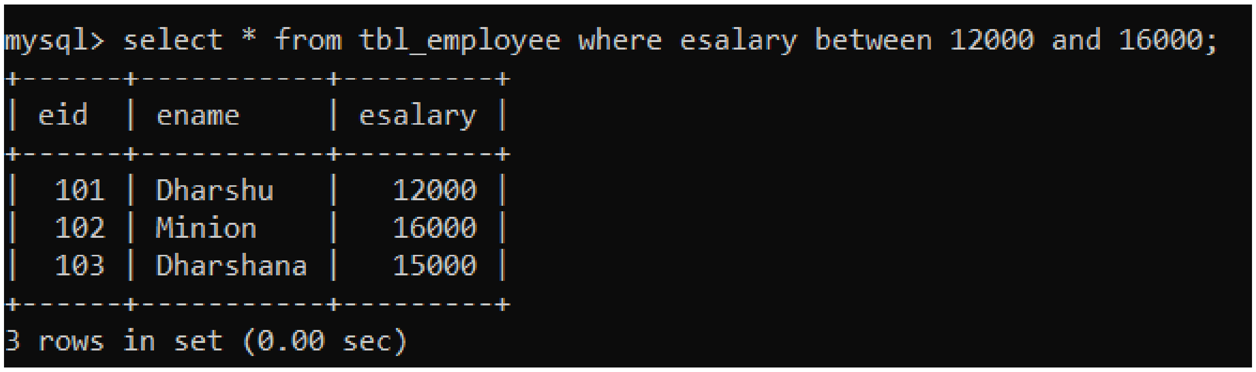
```
mysql> select * from tbl_employee where eid in(101, 103, 106);
+------+-----------+---------+
| eid  | ename     | esalary |
+------+-----------+---------+
|  101 | Dharshu   |   12000 |
|  103 | Dharshana |   15000 |
+------+-----------+---------+
2 rows in set (0.00 sec)
```



```
mysql> select * from tbl_employee where eid not in (101, 103, 106);
+------+--------+---------+
| eid  | ename  | esalary |
+------+--------+---------+
|  102 | Minion |   16000 |
|  104 | NULL   |   17000 |
|  105 | Jenish |    NULL |
+------+--------+---------+
3 rows in set (0.00 sec)
```

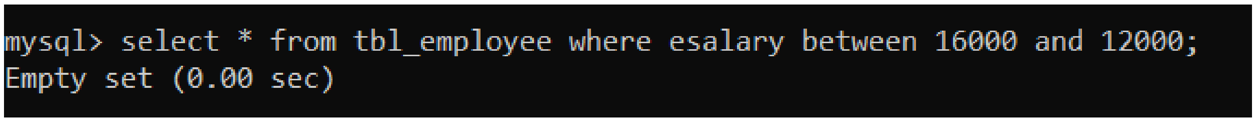
- Select command using the between operator:

It does not include the NULL value.

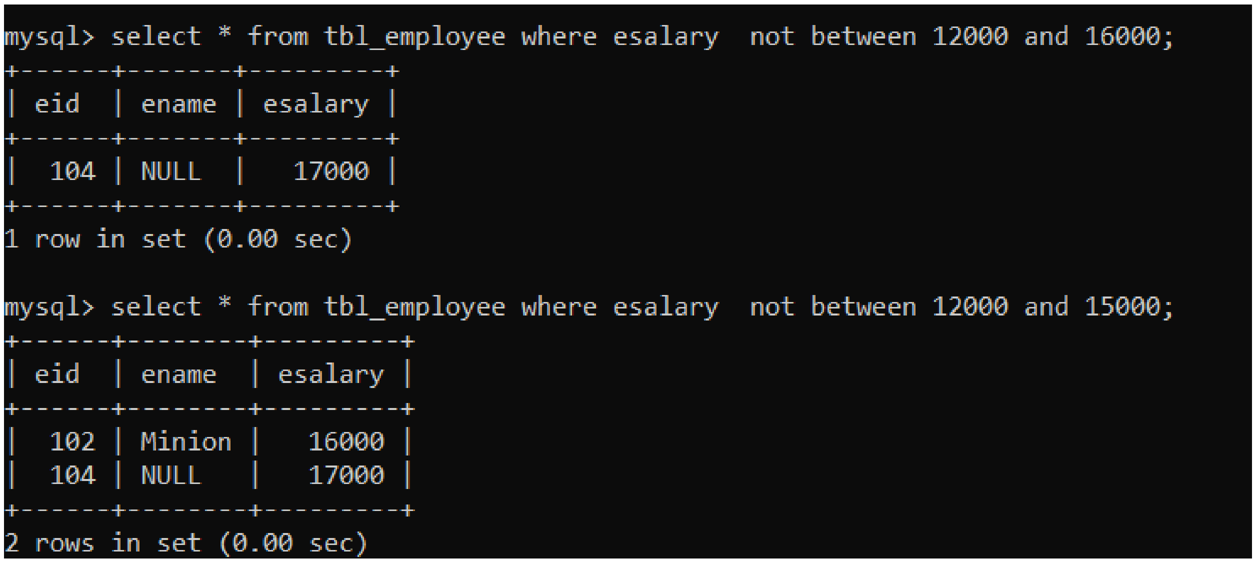


```
mysql> select * from tbl_employee where esalary between 12000 and 16000;
+------+-----------+---------+
| eid  | ename     | esalary |
+------+-----------+---------+
|  101 | Dharshu   |   12000 |
|  102 | Minion    |   16000 |
|  103 | Dharshana |   15000 |
+------+-----------+---------+
3 rows in set (0.00 sec)
```

We can’t specify the between operator in higher to lower.

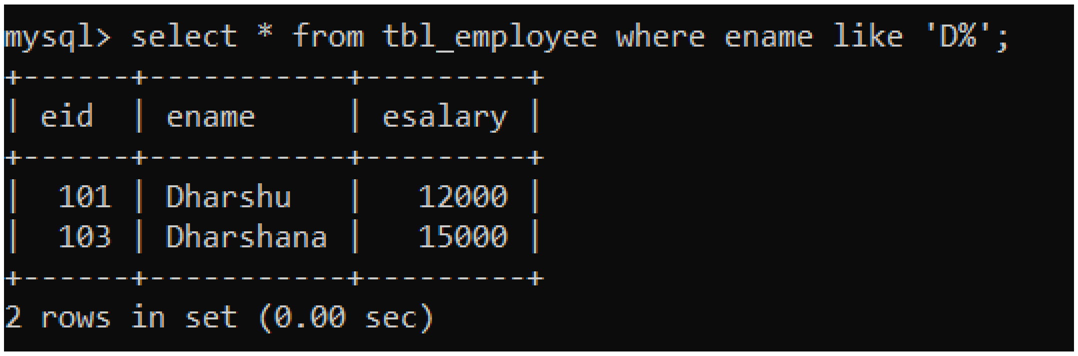


```
mysql> select * from tbl_employee where esalary between 16000 and 12000;
Empty set (0.00 sec)
```



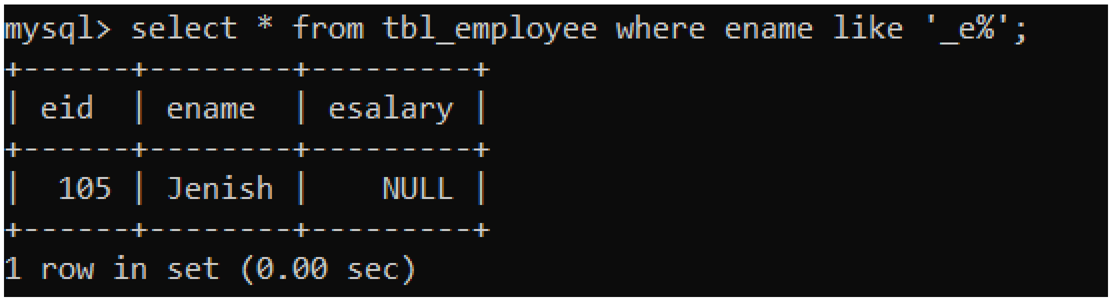
```
mysql> select * from tbl_employee where esalary  not between 12000 and 16000;
+------+-------+---------+
| eid  | ename | esalary |
+------+-------+---------+
|  104 | NULL  |   17000 |
+------+-------+---------+
1 row in set (0.00 sec)

mysql> select * from tbl_employee where esalary  not between 12000 and 15000;
+------+--------+---------+
| eid  | ename  | esalary |
+------+--------+---------+
|  102 | Minion |   16000 |
|  104 | NULL   |   17000 |
+------+--------+---------+
2 rows in set (0.00 sec)
```

- Select command using to display the pattern (%-->0 or n characters, _ → Single character)



```
mysql> select * from tbl_employee where ename like 'D%';
+------+-----------+---------+
| eid  | ename     | esalary |
+------+-----------+---------+
|  101 | Dharshu   |   12000 |
|  103 | Dharshana |   15000 |
+------+-----------+---------+
2 rows in set (0.00 sec)
```

- Like '_e%' —> based on the second character it will display the record.



```
mysql> select * from tbl_employee where ename like '_e%';
+------+--------+---------+
| eid  | ename  | esalary |
+------+--------+---------+
|  105 | Jenish |    NULL |
+------+--------+---------+
1 row in set (0.00 sec)
```

Update Query:

There may be a requirement where the existing data in a MySql table needs to be modified.

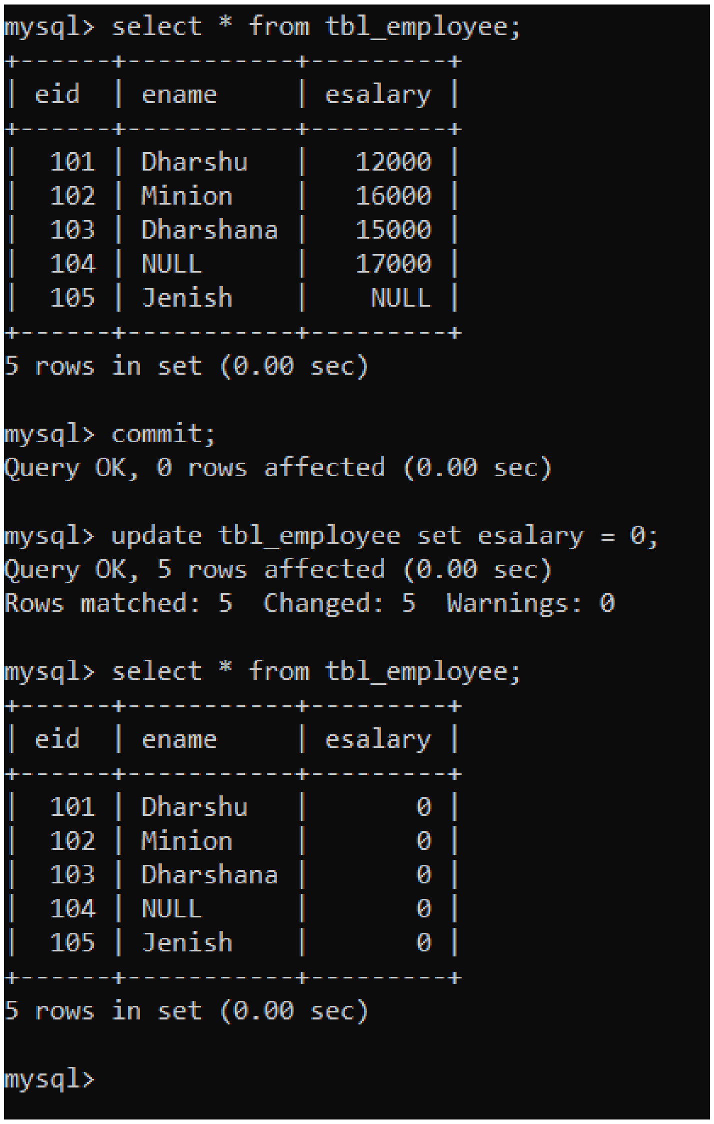
Syntax:

UPDATE table_name SET field1= new-value1,field2= new-value2
[WHERE Clause].

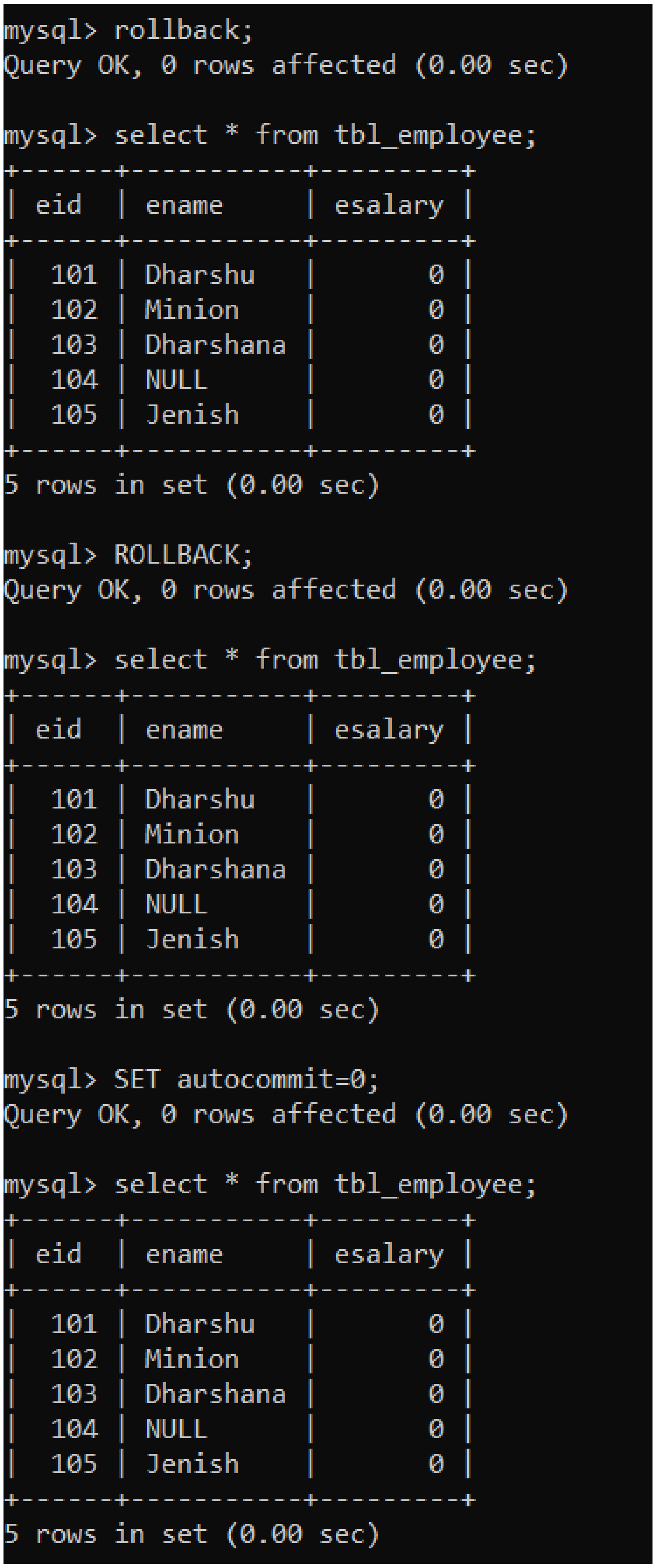
- You can update one or more fields altogether.
- You can specify any condition using the WHERE clause.
- You can update the values in a single table at a time.

The WHERE clause is very useful when you want to update the selected rows in a table.

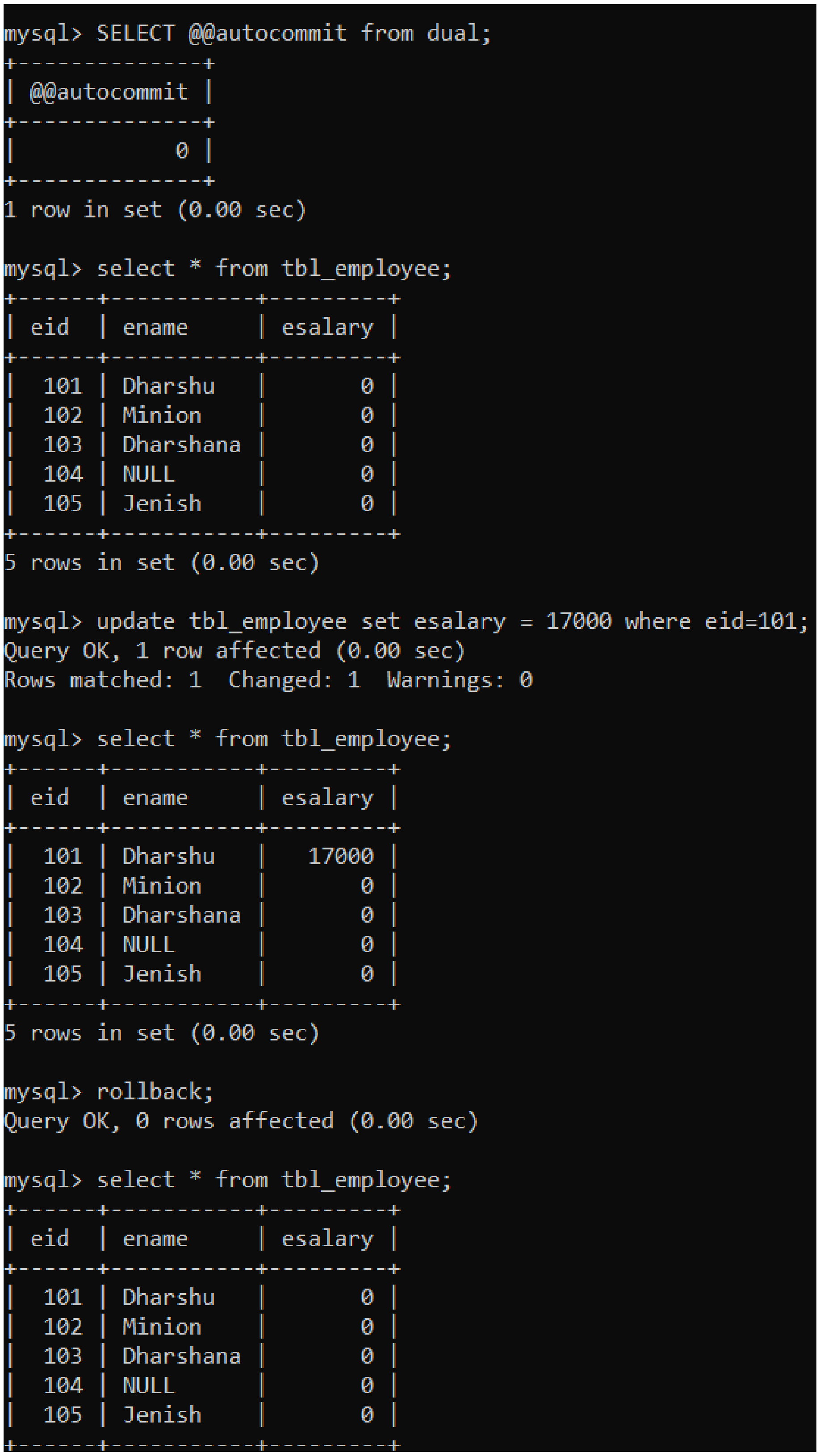
- **Commit** ——> will commit the transaction.
- **Rollback** ——> will recommit the transaction.



```
mysql> select * from tbl_employee;
+------+-----------+---------+
| eid  | ename     | esalary |
+------+-----------+---------+
|  101 | Dharshu   |   12000 |
|  102 | Minion    |   16000 |
|  103 | Dharshana |   15000 |
|  104 | NULL      |   17000 |
|  105 | Jenish    |    NULL |
+------+-----------+---------+
5 rows in set (0.00 sec)

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

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

mysql> select * from tbl_employee;
+------+-----------+---------+
| eid  | ename     | esalary |
+------+-----------+---------+
|  101 | Dharshu   |       0 |
|  102 | Minion    |       0 |
|  103 | Dharshana |       0 |
|  104 | NULL      |       0 |
|  105 | Jenish    |       0 |
+------+-----------+---------+
5 rows in set (0.00 sec)

mysql>
```

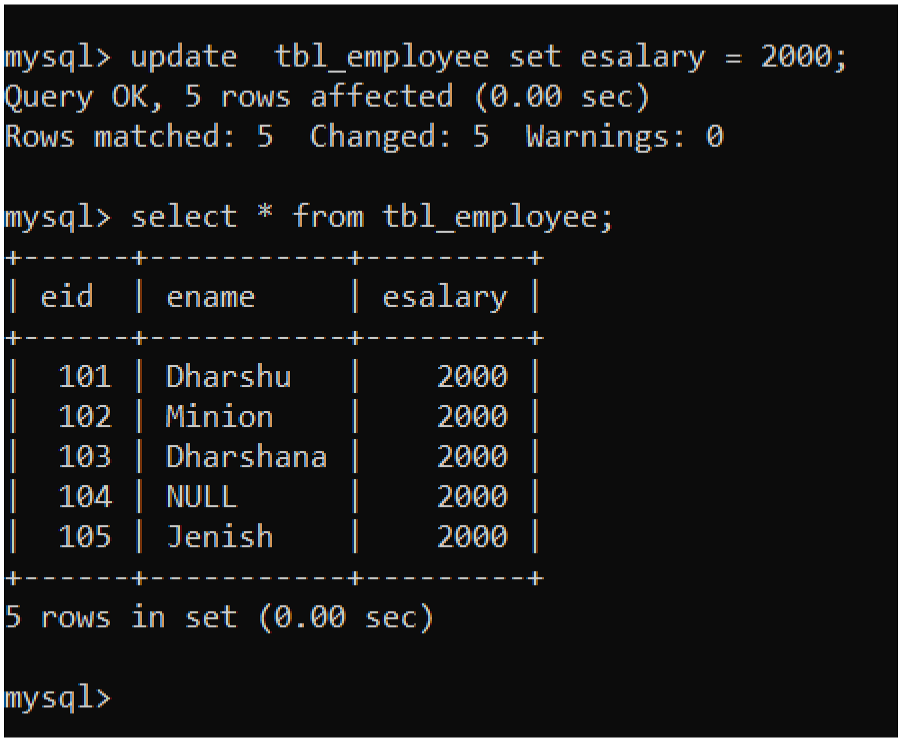


```
mysql> rollback;
Query OK, 0 rows affected (0.00 sec)

mysql> select * from tbl_employee;
+------+-----------+---------+
| eid  | ename     | esalary |
+------+-----------+---------+
|  101 | Dharshu   |       0 |
|  102 | Minion    |       0 |
|  103 | Dharshana |       0 |
|  104 | NULL      |       0 |
|  105 | Jenish    |       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 |
+------+-----------+---------+
|  101 | Dharshu   |       0 |
|  102 | Minion    |       0 |
|  103 | Dharshana |       0 |
|  104 | NULL      |       0 |
|  105 | Jenish    |       0 |
+------+-----------+---------+
5 rows in set (0.00 sec)

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

mysql> select * from tbl_employee;
+------+-----------+---------+
| eid  | ename     | esalary |
+------+-----------+---------+
|  101 | Dharshu   |       0 |
|  102 | Minion    |       0 |
|  103 | Dharshana |       0 |
|  104 | NULL      |       0 |
|  105 | Jenish    |       0 |
+------+-----------+---------+
5 rows in set (0.00 sec)
```



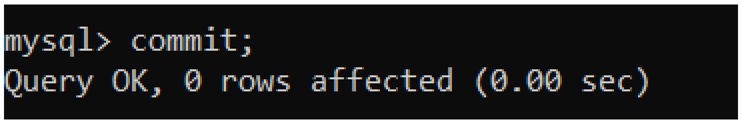
```
mysql> SELECT @@autocommit from dual;
+--------------+
| @@autocommit |
+--------------+
|            0 |
+--------------+
1 row in set (0.00 sec)

mysql> select * from tbl_employee;
+------+-----------+---------+
| eid  | ename     | esalary |
+------+-----------+---------+
|  101 | Dharshu   |       0 |
|  102 | Minion    |       0 |
|  103 | Dharshana |       0 |
|  104 | NULL      |       0 |
|  105 | Jenish    |       0 |
+------+-----------+---------+
5 rows in set (0.00 sec)

mysql> update tbl_employee set esalary = 17000 where eid=101;
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> select * from tbl_employee;
+------+-----------+---------+
| eid  | ename     | esalary |
+------+-----------+---------+
|  101 | Dharshu   |   17000 |
|  102 | Minion    |       0 |
|  103 | Dharshana |       0 |
|  104 | NULL      |       0 |
|  105 | Jenish    |       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 |
+------+-----------+---------+
|  101 | Dharshu   |       0 |
|  102 | Minion    |       0 |
|  103 | Dharshana |       0 |
|  104 | NULL      |       0 |
|  105 | Jenish    |       0 |
+------+-----------+---------+
```

- Update all the salary as 2000



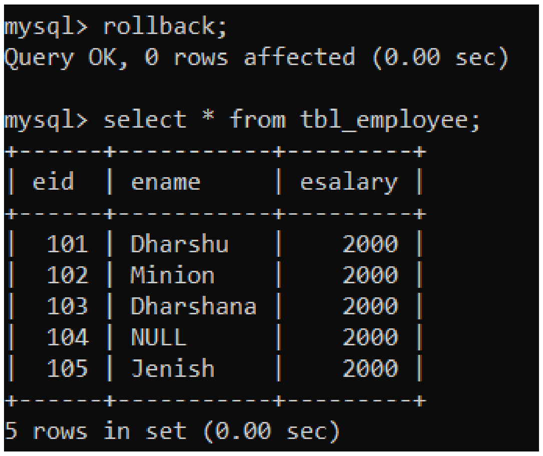
```
mysql> update  tbl_employee set esalary = 2000;
Query OK, 5 rows affected (0.00 sec)
Rows matched: 5  Changed: 5  Warnings: 0

mysql> select * from tbl_employee;
+------+-----------+---------+
| eid  | ename     | esalary |
+------+-----------+---------+
|  101 | Dharshu   |    2000 |
|  102 | Minion    |    2000 |
|  103 | Dharshana |    2000 |
|  104 | NULL      |    2000 |
|  105 | Jenish    |    2000 |
+------+-----------+---------+
5 rows in set (0.00 sec)

mysql>
```

Committing the records:



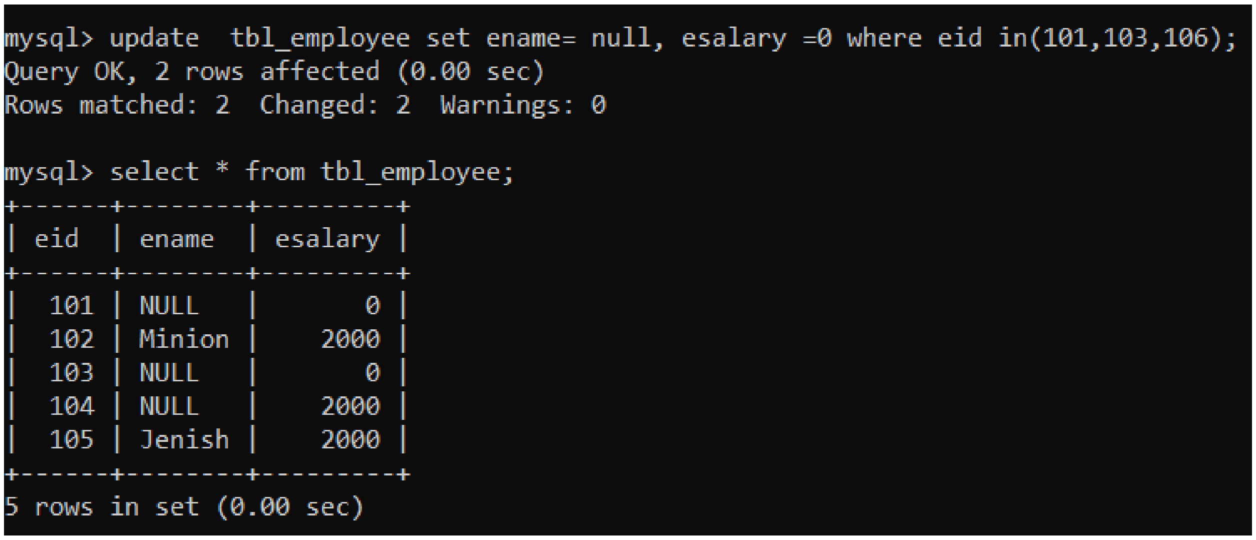
```
mysql> commit;
Query OK, 0 rows affected (0.00 sec)
```

Rollback the records:



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

mysql> select * from tbl_employee;
+------+-----------+---------+
| eid  | ename     | esalary |
+------+-----------+---------+
|  101 | Dharshu   |    2000 |
|  102 | Minion    |    2000 |
|  103 | Dharshana |    2000 |
|  104 | NULL      |    2000 |
|  105 | Jenish    |    2000 |
+------+-----------+---------+
5 rows in set (0.00 sec)
```

- Does not change anything because the records are already committed after committing the record if we modify anything and then we want to give rollback .


```
mysql> update  tbl_employee set ename= null, esalary =0 where eid in(101,103,106);
Query OK, 2 rows affected (0.00 sec)
Rows matched: 2  Changed: 2  Warnings: 0

mysql> select * from tbl_employee;
+------+--------+---------+
| eid  | ename  | esalary |
+------+--------+---------+
|  101 | NULL   |       0 |
|  102 | Minion |    2000 |
|  103 | NULL   |       0 |
|  104 | NULL   |    2000 |
|  105 | Jenish |    2000 |
+------+--------+---------+
5 rows in set (0.00 sec)
```

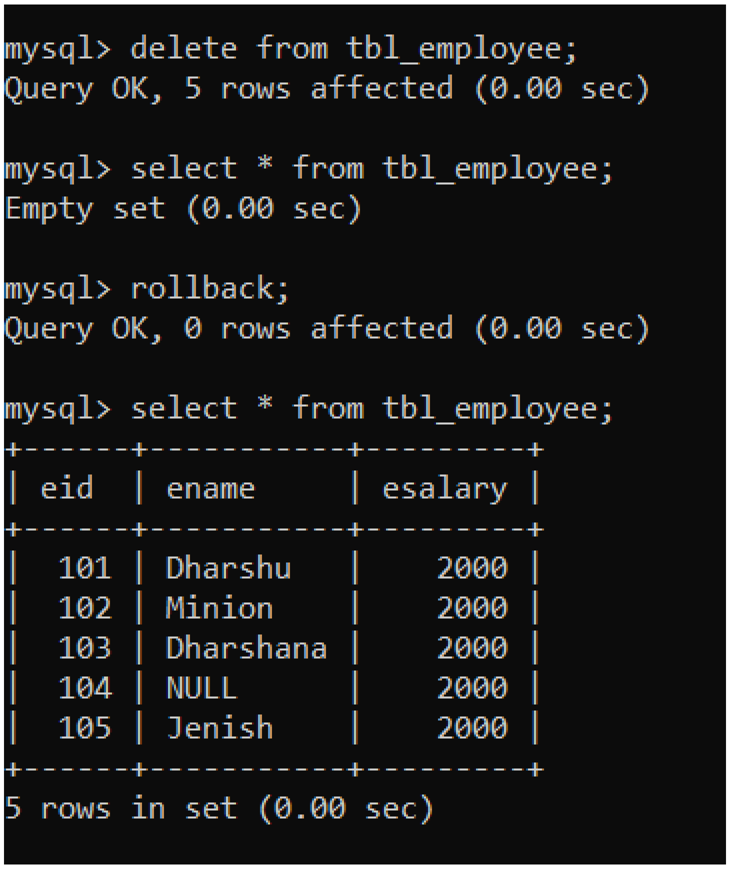
<u>Delete Query:</u>

If you want to delete a record from an mysql table , then you can use the Sql command DELETE FROM .

Syntax:

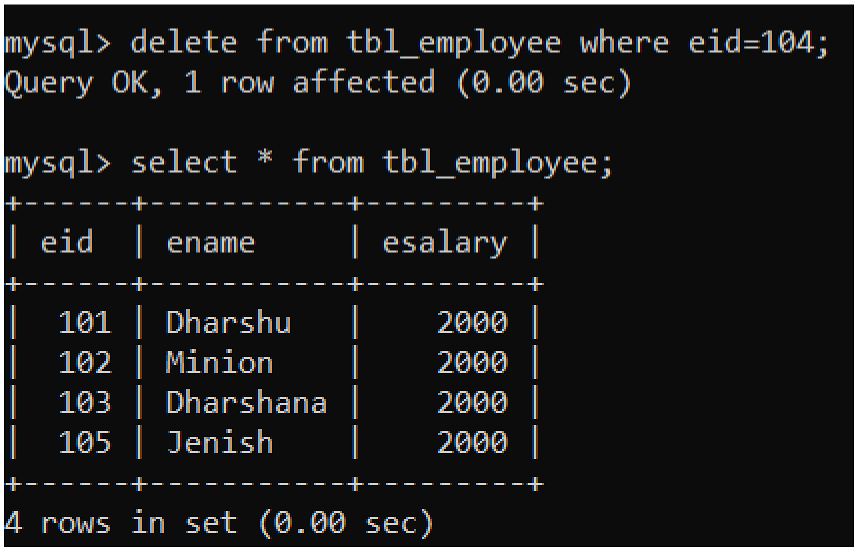
DELETE FROM table_name [WHERE Clause]

- If the WHERE clause is not specified, then all the records will be deleted from the given MySql table.
- You can specify any condition using the WHERE clause.
- You can delete records in a single table at a time.



```
mysql> delete from tbl_employee;
Query OK, 5 rows affected (0.00 sec)

mysql> select * from tbl_employee;
Empty set (0.00 sec)

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

mysql> select * from tbl_employee;
+------+-----------+---------+
| eid  | ename     | esalary |
+------+-----------+---------+
|  101 | Dharshu   |    2000 |
|  102 | Minion    |    2000 |
|  103 | Dharshana |    2000 |
|  104 | NULL      |    2000 |
|  105 | Jenish    |    2000 |
+------+-----------+---------+
5 rows in set (0.00 sec)
```

- To delete a particular record .



```
mysql> delete from tbl_employee where eid=104;
Query OK, 1 row affected (0.00 sec)

mysql> select * from tbl_employee;
+------+-----------+---------+
| eid  | ename     | esalary |
+------+-----------+---------+
|  101 | Dharshu   |    2000 |
|  102 | Minion    |    2000 |
|  103 | Dharshana |    2000 |
|  105 | Jenish    |    2000 |
+------+-----------+---------+
4 rows in set (0.00 sec)
```

Difference Between Delete and Truncate:

Delete is a DML command so the commit and rollback is worked.

Truncate is a DDL command so the commit and rollback does not work.

Like Clause:

- We have seen the SQL SELECT command to fetch data from the MySql table. We can also use a conditional clause called the WHERE clause to select the required records.

- A WHERE clause with the ‘equal to’ sign(=) works fine where we want to do an exact match. Like if “employee_name = ‘Minion’ “. But there may be a requirement where we want to filter out all the results where the employee_ name should contain “ion”. This can be handled by using SQL LIKE Clause along with the WHERE CLause.

- If SQL LIKE clause is used along with the % character, then it will work like a meta character(*) as in UNIX, while listing out of all the files or directories at the command prompt.Without a % character, the LIKE clause is very same as the equal to sign along with the WHERE Clause.

Syntax:

SELECT field1,field2,...fieldN table_name1,table_name2,....
WHERE field1 LIKE condition1 [AND [OR]] field2= ‘Somevalue’

- You can specify any condition using the WHERE Clause.
- You can use the LIKE clause along with the WHERE Clause.
- You can use the LIKE clause in place of the **Equals to sign**.
- When LIKE is used along with % sign then it will work like a meta character search.
- You can specify more than one condition using **AND** or **OR** Operators.
- A WHERE ... .LIKE clauses can be used along with DELETE or UPDATE SQL commands also to specify a condition.

Sorting Results:

- We have seen the SQL SELECT command to fetch data from MySql table.when you select rows, the MySql server is free to return them in any order , unless you instruct it otherwise by saying how to sort the result.

- But, you sort a result set by adding an **ORDER BY** clause that names the column or columns which you want to sort.

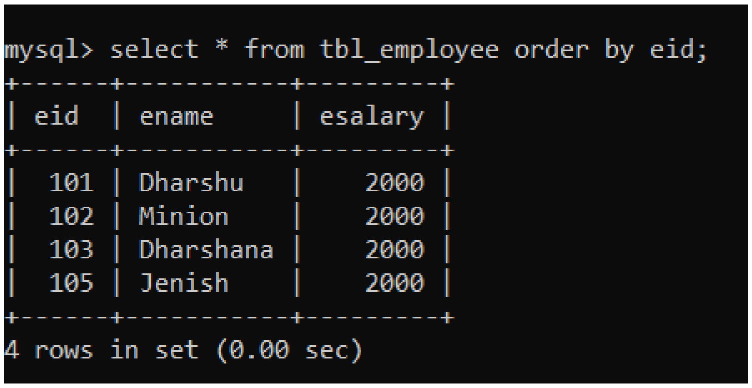
Syntax:

SELECT field1,field2,...fieldN table_name1,table_name2….

ORDER BY field1, [field2…] [ASC [DESC]]

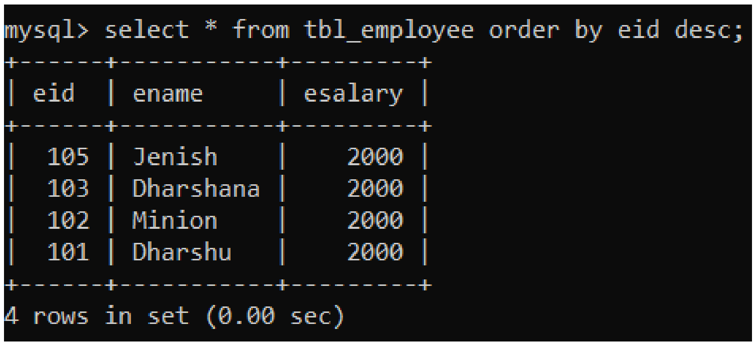
- You can sort the returned result on any field, if that field is being listed out.
- You can sort the result on more than one field.
- You can use the keyword ASC or DESC to get the result in ascending or descending order. **By default, it's the ascending order.**
- You can use the WHERE ... .LIKE clause in the usual way to put a condition.

- Ascending (By Default):



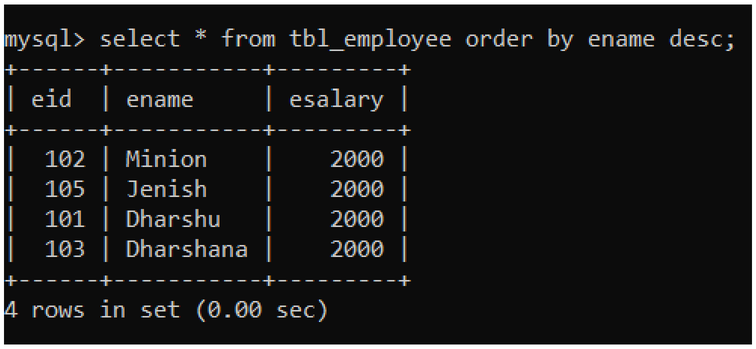
```
mysql> select * from tbl_employee order by eid;
+------+-----------+---------+
| eid  | ename     | esalary |
+------+-----------+---------+
|  101 | Dharshu   |    2000 |
|  102 | Minion    |    2000 |
|  103 | Dharshana |    2000 |
|  105 | Jenish    |    2000 |
+------+-----------+---------+
4 rows in set (0.00 sec)
```

- Descending:



```
mysql> select * from tbl_employee order by eid desc;
+------+-----------+---------+
| eid  | ename     | esalary |
+------+-----------+---------+
|  105 | Jenish    |    2000 |
|  103 | Dharshana |    2000 |
|  102 | Minion    |    2000 |
|  101 | Dharshu   |    2000 |
+------+-----------+---------+
4 rows in set (0.00 sec)
```

- Name in Descending order:



```
mysql> select * from tbl_employee order by ename desc;
+------+-----------+---------+
| eid  | ename     | esalary |
+------+-----------+---------+
|  102 | Minion    |    2000 |
|  105 | Jenish    |    2000 |
|  101 | Dharshu   |    2000 |
|  103 | Dharshana |    2000 |
+------+-----------+---------+
4 rows in set (0.00 sec)
```

<u>MySQL NULL Values:</u>

We have seen the **SQL SELECT** Command along with the **WHERE** clause to fetch data from a MySQL table, but when we try to give a condition , which compares the field or the column value to **NULL**, it does not work properly.

To handle such a situation , MySQL provides three operators:

- **IS NULL** — This operator returns true, if the column value is NULL.
- **IS NOT NULL** — This operator returns true, if the column value is not NULL.
- **< = >** — This operator compares values, which (unlike the = operator) is true even for two NULL values.

The conditions involving NULL are special. You cannot use =**NULL** or !=**NULL** to look for NULL values in columns. Such comparisons always fail because it is impossible to tell whether they are true or not. Sometimes, even NULL = NULL fails.

To look for columns that are or are not NULL , use **IS NULL** or **IS NOT NULL.**