

# **ASSIGNMENT MYSQL QUERY**

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# USEFUL COMMANDS:

- Show database;
- Use database\_name;
- Show tables;
- create table table\_name(attribute\_id\_1 type(domain) primary key, attribute\_2 type(domain),...,n);
- describe table\_name;
- describe table table\_name;
- select \* from table\_name;
- ALTER table table\_name ADD FOREIGN KEY (attribute\_name) REFERENCES ref\_table(attribute\_name);
- insert into table\_name value('val.1', 'val.2', 'val.3',...,n );
- update table\_name set attribute='value' WHERE attribute\_PK='target-value'; ▪ Select column1, column2 from table\_name;

- Select **avg**(attribute\_name) from table\_name;  
(It calculate the average value of numeric column(attribute\_name) in a database table(table\_name)).
- Select **sum**(attribute\_name) from table\_name;  
(It calculate the sum of all total values in a numeric column).
- Select **max**(attribute\_name) from table\_name;  
(To find the highest value of column).
- Select **min**(attribute\_name) from table\_name;  
(To find the lowest value in column).
- Select **count**(attribute\_name) from table\_name;
- Select **count (\*)** from table\_name;  
(To count the total number of rows in a table including rows with NULL values in any column).

- Select **avg**(attribute\_name) from table\_name **GROUP BY** attribute\_name **HAVING** count(attribute\_name) >1;  
(It returns the average of values that occur **more than once** in the column.)
- Select attribute\_name from table\_name where attribute\_name=' ' **AND** attribute\_name > value
- **BETWEEN** attribute\_name>value;  
(It returns the average of values that occur **more than once** in the column).
- Select attribute\_name from table\_name where attribute\_name **IN** (values,values,..);  
(To fetch records where the column values is one of the values listed in the IN clause).
- Select attribute\_name from table\_name where attribute\_name **LIKE** 'a%';

'a%'	->string starting with a
'%a'	->string ending with a
'%a%'	->string containing a
'a_c'	->a + 1 any char +c

# Aggregate Functions: Avg, count, max ,min , sum

```
MySQL 8.0 Command Line Client - Unicode
mysql> select count(commission) from Employee;
+-----+
| count(commission) |
+-----+
|          4        |
+-----+
1 row in set (0.01 sec)

mysql> select avg(salary) from Employee;
+-----+
| avg(salary) |
+-----+
| 80000.0000 |
+-----+
1 row in set (0.01 sec)

mysql> select max(salary) from Employee;
+-----+
| max(salary) |
+-----+
|      90000 |
+-----+
1 row in set (0.01 sec)

mysql> select min(salary) from Employee;
+-----+
| min(salary) |
+-----+
|      70000 |
+-----+
1 row in set (0.00 sec)

mysql> select sum(salary) from Employee;
+-----+
| sum(salary) |
+-----+
|      320000 |
+-----+
1 row in set (0.00 sec)
```

```
| 75000.0000 |
```

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

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

```
mysql> select * from dept;
```

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

```
| dep_no | dept_name |
```

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

```
| 101 | marketing |
```

```
| 102 | FIR |
```

```
| 103 | Finance |
```

```
| 104 | employee_union |
```

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

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

```
mysql>
```

```
mysql> Update dept set dept_name='Finance' where dept_no='102';
```

```
ERROR 1054 (42S22): Unknown column 'dept_no' in 'where clause'
```

```
mysql> Update dept set dept_name='Finance' where dept_no='104';
```

```
ERROR 1054 (42S22): Unknown column 'dept_no' in 'where clause'
```

```
mysql> Update dept set dept_name='Finance' where dep_no='104';
```

```
Query OK, 1 row affected (0.01 sec)
```

```
Rows matched: 1 Changed: 1 Warnings: 0
```

```
mysql> select avg(salary) from employee GROUP BY job, dep_no;
```

```
ERROR 1054 (42S22): Unknown column 'dep_no' in 'group statement'
```

```
mysql> select * from dept;
```

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

```
| dep_no | dept_name |
```

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

```
| 101 | marketing |
```

```
| 102 | FIR |
```

```
| 103 | Finance |
```

```
| 104 | Finance |
```

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

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

```
mysql> select avg(salary) from employee GROUP BY job, dept_name;
```

```
ERROR 1054 (42S22): Unknown column 'dept_name' in 'group statement'
```

```
mysql> select avg(salary) from employee GROUP BY job, dept_name;
```

```
ERROR 1054 (42S22): Unknown column 'dept_name' in 'group statement'
```

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

```
mysql> select e_name from employee where commision IS NOT NULL;  
ERROR 1054 (42S22): Unknown column 'commision' in 'where clause'  
mysql> select e_name from employee where commission IS NOT NULL;
```

```
+-----+  
| e_name |  
+-----+  
| AMINA  |  
| NOOR   |  
| KHADIJA |  
| AYESHA |  
+-----+
```

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

```
mysql> Update table Employee set commission='NULL' where e_name ='1203';  
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 'table Employee set commission='NULL' where e_name ='1203'' at line 1
```

```
mysql> Update Employee set commission=0 where e_name ='NOOR';  
Query OK, 1 row affected (0.02 sec)  
Rows matched: 1  Changed: 1  Warnings: 0
```

```
mysql> select count(*) from Employee;
```

```
+-----+  
| count(*) |  
+-----+  
|         4 |  
+-----+
```

```
1 row in set (0.01 sec)
```

```
mysql> select count(commission) from Employee;
```

```
+-----+  
| count(commission) |  
+-----+  
|                   4 |  
+-----+
```

```
1 row in set (0.01 sec)
```

# Having

MySQL 8.0 Command Line Client - Unicode

```
mysql> select avg(salary) from employee GROUP BY job, dept_name;
ERROR 1054 (42S22): Unknown column 'dept_name' in 'group statement'
mysql> select avg(salary) from employee GROUP BY job, dept_name;
ERROR 1054 (42S22): Unknown column 'dept_name' in 'group statement'
mysql> select avg(salary) from employee GROUP BY job HAVING COUNT > 1;
ERROR 1054 (42S22): Unknown column 'COUNT' in 'having clause'
mysql>
mysql> select avg(salary) from employee GROUP BY job HAVING COUNT e_name > 1;
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 'e_name > 1' at line 1
mysql> select avg(salary) from employee GROUP BY job HAVING COUNT(e_name) > 1;
+-----+
| avg(salary) |
+-----+
| 87500.0000 |
+-----+
1 row in set (0.01 sec)

mysql> select max(salary) from employee GROUP BY job HAVING COUNT(e_name) > 1;
+-----+
| max(salary) |
+-----+
| 90000 |
+-----+
1 row in set (0.00 sec)

mysql> select min(salary) from employee GROUP BY job HAVING COUNT(e_name) > 1;
+-----+
| min(salary) |
+-----+
| 85000 |
+-----+
1 row in set (0.00 sec)

mysql>
```



# Between

MySQL 8.0 Command Line Client - Unicode

```
mysql> select * from Employee;
```

e_no	job	e_name	hire_date	salary	commission	DEPT_no	GRADE
102	HR	AMINA	2025-01-25	85000	4000	102	2
1201	assistant	NOOR	2025-01-25	90000	5000	101	1
1203	manager	KHADIJA	2025-02-28	70000	2000	103	3
1204	WEBdeveloper	AYESHA	2025-06-28	75000	1000	104	4

```
4 rows in set (0.02 sec)
```

```
mysql> select job from Employee where salary>75000 && salary<90000;
```

job
HR

```
1 row in set, 1 warning (0.01 sec)
```

```
mysql> select job from Employee where job='HR' && salary>75000 && salary<90000;
```

job
HR

```
1 row in set, 2 warnings (0.00 sec)
```

```
mysql> select job from Employee where job='HR'AND salary>75000 BETWEEN salary<90000;
```

```
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 '<90000' at line 1
```

```
mysql> select job from Employee where job='HR'AND salary BETWEEN 75000 AND 90000;
```

job
HR

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

# IN

MySQL 8.0 Command Line Client - Unicode

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

```
mysql> select e_name from Employee where job='manager' OR salary 90000 BETWEEN 85000;
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 '90000 BETWEEN 85000' at line 1
```

```
mysql> select e_name from Employee where job='manager' OR salary 90000 BETWEEN 70000;
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 '90000 BETWEEN 70000' at line 1
```

```
mysql> select e_name from Employee where job='manager' OR salary BETWEEN 85000 AND 70000;
```

```
+-----+
| e_name |
+-----+
| KHADIJA |
+-----+
1 row in set (0.00 sec)
```

```
mysql> select e_name from Employee where salary IN (85000, 70000,75000);
```

```
+-----+
| e_name |
+-----+
| AMINA  |
| KHADIJA |
| AYESHA |
+-----+
3 rows in set (0.00 sec)
```

```
mysql> select e_name from Employee where salary IN (85000, 70000,75000,19000);
```

```
+-----+
| e_name |
+-----+
| AMINA  |
| KHADIJA |
| AYESHA |
+-----+
3 rows in set (0.00 sec)
```

```
mysql>
```

# LETTERS

MySQL 8.0 Command Line Client - Unicode

Empty set (0.00 sec)

```
mysql> select e_name from Employee where e_name LIKE '__a%';
```

e_name
KHADIJA

1 row in set (0.00 sec)

```
mysql> select e_name from Employee where e_name LIKE 'a%a';
```

e_name
AMINA
AYESHA

2 rows in set (0.00 sec)

```
mysql> select e_name from Employee where e_name LIKE '%a';
```

e_name
AMINA
KHADIJA
AYESHA

3 rows in set (0.00 sec)

```
mysql> select e_name from employee where commision IS NOT NULL;  
ERROR 1054 (42S22): Unknown column 'commision' in 'where clause'  
mysql> select e_name from employee where commission IS NOT NULL;
```

e_name
AMINA
NOOR
KHADIJA
AYESHA

4 rows in set (0.00 sec)

```
mysql> Select e_name from Employee where e_name LIKE a%;
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 '%' at line 1
mysql> Select e_name from Employee where e_name LIKE 'a%';
+-----+
| e_name |
+-----+
| AMINA  |
| AYESHA |
+-----+
2 rows in set (0.01 sec)

mysql> Select e_name from Employee where e_name LIKE 'n%';
+-----+
| e_name |
+-----+
| NOOR   |
+-----+
1 row in set (0.00 sec)

mysql> Select e_name from Employee where e_name LIKE '--a%';
Empty set (0.00 sec)

mysql> Select e_name from Employee where e_name LIKE '__a%';
+-----+
| e_name |
+-----+
| KHADIJA |
+-----+
1 row in set (0.00 sec)

mysql> Select e_name from Employee where e_name LIKE 'a%a';
+-----+
| e_name |
+-----+
| AMINA  |
| AYESHA |
+-----+
2 rows in set (0.00 sec)

mysql> Select e_name from Employee where e_name LIKE '%a';
```