

New commands :

```
mysql> select 8 from tbl_employee;
```

```
+---+
```

```
| 8 |
```

```
+---+
```

```
| 8 |
```

```
+---+
```

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

```
mysql> select " aravind" from tbl_employee;
```

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

```
| aravind |
```

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

```
| aravind |
```

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

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

```
mysql> select 10+20 from tbl_employee;
```

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

```
| 10+20 |
```

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

```
| 30 |
```

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

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

```
mysql> select 10+20 as "Sum of 10 and 20" ;
```

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

```
| Sum of 10 and 20 |
```

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

```
| 30 |
```

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

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

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

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

```
| id | name    | salary | dno |
```

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

```
| 101 | aravind | 3000 | 10 |
```

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

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

Create new table with existing table with records:

```
mysql> create table tbl_copyemployee as select * from tbl_employee;
Query OK, 1 row affected (0.02 sec)
Records: 1  Duplicates: 0  Warnings: 0
```

```
mysql> select * from tbl_employee;
+-----+-----+-----+-----+
| id  | name    | salary | dno  |
+-----+-----+-----+-----+
| 101 | aravind | 3000   | 10   |
+-----+-----+-----+-----+
1 row in set (0.00 sec)
```

Create new table with existing table only structure :

```
mysql> create table tbl_copy2employee as select * from tbl_employee
where 1=2;
Query OK, 0 rows affected (0.01 sec)
Records: 0  Duplicates: 0  Warnings: 0
```

```
mysql> desc tbl_copy2employee;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id    | int           | NO   |     | NULL    |       |
| name  | varchar(20)   | YES  |     | NULL    |       |
| salary | int           | YES  |     | NULL    |       |
| dno   | int           | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)
```

```
mysql> select * from tbl_copy2employee;
Empty set (0.00 sec)
```

GROUP BY:

```
mysql> select * from tbl_copyemployee;
```

```
+-----+-----+-----+-----+
| id  | name      | salary | dno  |
+-----+-----+-----+-----+
| 101 | aravind   | 3000   | 10   |
| 102 | mahesh    | 40000  | 10   |
| 103 | madhan    | 540000 | 10   |
| 104 | shiva     | 540000 | 20   |
| 105 | shivakumar | 540000 | 20   |
+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```

```
mysql> select count(*) from tbl_copyemployee group by dno;
```

```
+-----+
| count(*) |
+-----+
| 3         |
| 2         |
+-----+
2 rows in set (0.00 sec)
```

```
mysql> select dno as "Department No", count(*) as "No of Employee"
from tbl_copyemployee group by dno;
```

```
+-----+-----+
| Department No | No of Employee |
+-----+-----+
| 10             | 3              |
| 20             | 2              |
+-----+-----+
2 rows in set (0.00 sec)
```

AGGREGATE FUNCTIONS

TABLE:

```
mysql> select * from tbl_copyemployee;
```

id	name	salary	dno
101	aravind	3000	10
102	mahesh	40000	10
103	madhan	540000	10
104	shiva	540000	20
105	shivakumar	540000	20

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

MAX:

```
mysql> select max(salary ) as "Highest Salary" from tbl_copyemployee;
```

Highest Salary
540000

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

MIN:

```
mysql> select min(salary ) as "Lowest Salary" from tbl_copyemployee;
```

Lowest Salary
3000

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

SUM:

```
mysql> select sum(salary ) as "Total Salary" from tbl_copyemployee;
```

```
+-----+
| Total Salary |
+-----+
|      1663000 |
+-----+
1 row in set (0.00 sec)
```

AVG:

```
mysql> select avg(salary ) as "Average Salary" from tbl_copyemployee;
```

```
+-----+
| Average Salary |
+-----+
|   332600.0000 |
+-----+
1 row in set (0.00 sec)
```

COUNT:

```
mysql> SELECT COUNT(salary) from tbl_copyemployee;
```

```
+-----+
| COUNT(salary) |
+-----+
|              5 |
+-----+
1 row in set (0.00 sec)
```

Having:

```
mysql> select dno,count(*) from tbl_copyemployee group by dno having
min(salary)=3000;
```

```
+-----+-----+
| dno  | count(*) |
+-----+-----+
|   10 |         3 |
+-----+-----+
1 row in set (0.00 sec)
```

UPPER CASE:

```
mysql> select upper (name) from tbl_copyemployee;
```

```
+-----+
| upper (name) |
+-----+
| ARAVIND      |
| MAHESH       |
| MADHAN       |
| SHIVA        |
| SHIVAKUMAR   |
| SHIVAAA      |
| SANKAR       |
+-----+
```

7 rows in set (0.00 sec)

Create view;

```
mysql> create view myview as select * from tbl_copyemployee where
dno=10;
```

Query OK, 0 rows affected (0.00 sec)

```
mysql> desc myview;
```

```
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id    | int           | NO   |     | NULL    |       |
| name  | varchar(20)   | YES  |     | NULL    |       |
| salary | int           | YES  |     | NULL    |       |
| dno   | int           | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
```

4 rows in set (0.00 sec)

```
mysql> select * from myview;
```

```
+-----+-----+-----+-----+
| id | name    | salary | dno |
+-----+-----+-----+-----+
| 101 | aravind | 3000   | 10  |
| 102 | mahesh  | 40000  | 10  |
| 103 | madhan  | 540000 | 10  |
+-----+-----+-----+-----+
```

3 rows in set (0.00 sec)

UPDATE IN VIEW:

```
mysql> update myview set salary=7000 where id=101;
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0
```

```
mysql> select * from myview;
+-----+-----+-----+-----+
| id  | name    | salary | dno  |
+-----+-----+-----+-----+
| 101 | aravind | 7000   | 10   |
| 102 | mahesh  | 40000  | 10   |
| 103 | madhan  | 540000 | 10   |
+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

ALSO UPDATED IN REAL TABLE:

```
mysql> select * from tbl_copyemployee;
+-----+-----+-----+-----+
| id  | name          | salary | dno  |
+-----+-----+-----+-----+
| 101 | aravind      | 7000   | 10   |
| 102 | mahesh        | 40000  | 10   |
| 103 | madhan        | 540000 | 10   |
| 104 | shiva         | 540000 | 20   |
| 105 | shivakumar    | 540000 | 20   |
| 10  | shivaaa       | 8000   | 20   |
| 230 | sankar        | 69000  | 50   |
+-----+-----+-----+-----+
7 rows in set (0.00 sec)
```

NOW UPDATE IN REAL TABLE:

```
mysql> UPDATE  tbl_copyemployee set name="Aravind S" where id=101;
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0
```

```
mysql> select * from tbl_copyemployee;
```

id	name	salary	dno
101	Aravind S	7000	10
102	mahesh	40000	10
103	madhan	540000	10
104	shiva	540000	20
105	shivakumar	540000	20
10	shivaaa	8000	20
230	sankar	69000	50

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

ALSO UPDATED IN VIEW:

```
mysql> select * from myview;
```

id	name	salary	dno
101	Aravind S	7000	10
102	mahesh	40000	10
103	madhan	540000	10

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

TO DROP VIEW:

```
mysql> drop view myview;
```

```
Query OK, 0 rows affected (0.01 sec)
```


JOINS:

```
mysql> select * from customers;
```

CUSTOMER_CODE	CUSTOMER_NAME	CUSTOMER_AREA
C101	customer1	chennai
C102	customer2	chennai
C103	customer3	chennai
C104	customer4	Bangalore
C105	customer5	Bangalore

5 rows in set (0.00 sec)

```
mysql> select * from agents;
```

AGENTS_CODE	AGENT_NAME	WORKING_AREA
A101	agent1	chennai
A102	agent2	chennai
A103	agent3	Bangalore
A101	agents1	chennai
A104	agent4	Bangalore

5 rows in set (0.00 sec)

USING TABLE NAME:

```
mysql> SELECT agents. AGENTS_CODE ,agents.AGENT_NAME  
,customers.CUSTOMER_NAME FROM agents,customers where  
agents.WORKING_AREA=customers.CUSTOMER_AREA;
```

AGENTS_CODE	AGENT_NAME	CUSTOMER_NAME
A102	agent2	customer1
A101	agent1	customer1
A102	agent2	customer2
A101	agent1	customer2
A102	agent2	customer3
A101	agent1	customer3
A104	agent4	customer4

A103	agent3	customer4
A104	agent4	customer5
A103	agent3	customer5

10 rows in set (0.00 sec)

ORDER BY CODE:

```
mysql> SELECT agents. AGENTS_CODE ,agents.AGENT_NAME
,customers.CUSTOMER_NAME FROM agents,customers where
agents.WORKING_AREA=customers.CUSTOMER_AREA ORDER BY AGENTS_CODE;
```

AGENTS_CODE	AGENT_NAME	CUSTOMER_NAME
A101	agent1	customer1
A101	agent1	customer2
A101	agent1	customer3
A102	agent2	customer1
A102	agent2	customer2
A102	agent2	customer3
A103	agent3	customer4
A103	agent3	customer5
A104	agent4	customer4
A104	agent4	customer5

10 rows in set (0.00 sec)

ORDER BY NAME;

```
mysql> SELECT agents. AGENTS_CODE ,agents.AGENT_NAME
,customers.CUSTOMER_NAME FROM agents,customers where
agents.WORKING_AREA=customers.CUSTOMER_AREA ORDER BY AGENT_NAME;
```

AGENTS_CODE	AGENT_NAME	CUSTOMER_NAME
A101	agent1	customer1
A101	agent1	customer2
A101	agent1	customer3
A102	agent2	customer1
A102	agent2	customer2
A102	agent2	customer3
A103	agent3	customer4

A103	agent3	customer5
A104	agent4	customer4
A104	agent4	customer5

10 rows in set (0.00 sec)

Alias name:

```
mysql> SELECT a.AGENTS_CODE ,a.AGENT_NAME ,c.CUSTOMER_NAME FROM agents
as a,customers as c where a.WORKING_AREA=c.CUSTOMER_AREA;
```

AGENTS_CODE	AGENT_NAME	CUSTOMER_NAME
A102	agent2	customer1
A101	agent1	customer1
A102	agent2	customer2
A101	agent1	customer2
A102	agent2	customer3
A101	agent1	customer3
A104	agent4	customer4
A103	agent3	customer4
A104	agent4	customer5
A103	agent3	customer5

10 rows in set (0.00 sec)

Using on keyword:

```
mysql> SELECT a.AGENTS_CODE ,a.AGENT_NAME ,c.CUSTOMER_NAME FROM agents
as a join customers as c on a.WORKING_AREA=c.CUSTOMER_AREA;
```

AGENTS_CODE	AGENT_NAME	CUSTOMER_NAME
A102	agent2	customer1
A101	agent1	customer1
A102	agent2	customer2
A101	agent1	customer2
A102	agent2	customer3
A101	agent1	customer3
A104	agent4	customer4
A103	agent3	customer4
A104	agent4	customer5

A103	agent3	customer5
------	--------	-----------

10 rows in set (0.00 sec)

INNER JOIN:

```
mysql> SELECT a.AGENTS_CODE ,a.AGENT_NAME ,c.CUSTOMER_NAME FROM agents
as a inner join customers as c on a.WORKING_AREA=c.CUSTOMER_AREA;
```

AGENTS_CODE	AGENT_NAME	CUSTOMER_NAME
A102	agent2	customer1
A101	agent1	customer1
A102	agent2	customer2
A101	agent1	customer2
A102	agent2	customer3
A101	agent1	customer3
A104	agent4	customer4
A103	agent3	customer4
A104	agent4	customer5
A103	agent3	customer5

10 rows in set (0.00 sec)

LEFT OUTER JOIN:

```
mysql> select * from agents left outer join customers on
WORKING_AREA=CUSTOMER_AREA;
```

AGENTS_CODE	AGENT_NAME	WORKING_AREA	CUSTOMER_CODE	CUSTOMER_NAME	CUSTOMER_AREA
A101	agent1	chennai	C103	customer3	chennai
A101	agent1	chennai	C102	customer2	chennai
A101	agent1	chennai	C101	customer1	chennai
A102	agent2	chennai	C103	customer3	chennai
A102	agent2	chennai	C102	customer2	chennai
A102	agent2	chennai	C101	customer1	chennai
A103	agent3	Bangalore	C105	customer5	Bangalore
A103	agent3	Bangalore	C104	customer4	Bangalore
A104	agent4	Bangalore	C105	customer5	Bangalore
A104	agent4	Bangalore	C104	customer4	Bangalore
a105	agent5	mumbai	NULL	NULL	NULL

11 rows in set (0.00 sec)

OUTER JOINS:

```
mysql> select * from agents right outer join customers on  
WORKING_AREA=CUSTOMER_AREA;
```

AGENTS_CODE	AGENT_NAME	WORKING_AREA	CUSTOMER_CODE	CUSTOMER_NAME	CUSTOMER_AREA
A102	agent2	chennai	C101	customer1	chennai
A101	agent1	chennai	C101	customer1	chennai
A102	agent2	chennai	C102	customer2	chennai
A101	agent1	chennai	C102	customer2	chennai
A102	agent2	chennai	C103	customer3	chennai
A101	agent1	chennai	C103	customer3	chennai
A104	agent4	Bangalore	C104	customer4	Bangalore
A103	agent3	Bangalore	C104	customer4	Bangalore
A104	agent4	Bangalore	C105	customer5	Bangalore
A103	agent3	Bangalore	C105	customer5	Bangalore
NULL	NULL	NULL	c106	customer6	kolkata

11 rows in set (0.00 sec)