My SQL Queries

Creating table

```
nysql> use Ayush;
Database changed
mysql> create table employee(Emp_ID varchar(5),First_Name varchar(20),last_Name Varchar(20),age int,Post varchar(10),Salary int,city v
archar(120));
Query OK, 0 rows affected (0.08 sec)
mysql> show table 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 'employee' at line 1
nysql> desc employee;
  Field
                 Type
                                   Null | Key |
                                                  Default | Extra
  Emp_ID
                  varchar(5)
                  varchar(20)
  First_Name
                                    YES
                                                   NULL
  last_Name
                  varchar(20)
                                    YES
                                                   NULL
                  int
                                    YES
                                                   NULL
  Post
                 varchar(10)
                                    YES.
                                                   NULL
  Salary
                                    YES
                                                   NULL
  city
                 varchar(120)
                                   YES
                                                   NULL
  rows in set (0.04 sec)
mysql> INSERT INTO employee (Emp_ID, First_Name, Last_Name, Age, Post, Salary, City)
     -> VALUES
-> ('E001', 'John', 'Doe', 30, 'Manager', 60000, 'New York'),
-> ('E002', 'Jane', 'Smith', 25, 'Analyst', 50000, 'Los Angeles'),
-> ('E003', 'David', 'Brown', 28, 'Developer', 55000, 'Chicago');
Query OK, 3 rows affected (0.02 sec)
Records: 3 Duplicates: 0 Warnings: 0
mysql> SELECT * FROM employee;
  Emp_ID | First_Name | last_Name |
                                                   Post
                                                                 Salary | city
                                                                                                                                Activate Windows
                                             30
25
28
  E001
             John
                            Doe
                                                   Manager
                                                                   60000
                                                                             New York
                                                                                                                                Go to Settings to activate Windows.
  E002
                                                                   50000
             Jane
                             Smith
                                                   Analyst
                                                                            Los Angeles
  E003
             David
                            Brown
                                                   Developer
                                                                   55000
                                                                            Chicago
```

Table filtering queries Show employee by city Dehradun, Kanpur Lucknow with age >55,

Emp_ID	First_Name	Last_Name	age	Post	!	M_ID	Sal	lary	city	
E01	Arjun	Singh	55	Clerk		M01	45	6000	Dehrac	un
E05	Singh	Vikas	53	Clerk	i	M04	35	5000	Dehrad	
E06	Akhilesh	Rao	32	Account	ant	M03	42	2000	Dehrad	un
E11	Kamal	Kalash	65	Clerk	i	M03	96	9999	Dehrad	un
E12	AB	AC	65	Clerk	İ	M03	96	9999	Dehrad	un
E13	AD	AB	65	Clerk	ĺ	M03	96	9000	Dehrad	un
E14	AA	AA	65	Clerk		M03	96	9999	Dehrad	un
	set (0.00 sed									
rows in	set (0.00 sed	:)	/="dehra	adun" and	age>			ì		
rows in		np where city		++			iry	city		
rows in	lect * from er	np where city		++		55;			/ +	
rows in sql> se Emp_ID	lect * from er + First_Name	mp where city	age	Post	M_ID	55; Sala	999	Dehr	+	
rows in sql> se Emp_ID	lect * from er + First_Name + Kamal	mp where city Last_Name	age 	Post 	M_ID M03	55; Sala	900	Dehr Dehr	adun	

```
rows in set (0.00 sec)
ysql> select * from emp where city not in("kanpur","lucknow");
 Emp_ID | First_Name | Last_Name | age | Post
                                                         M_ID | Salary | city
E01
          Arjun
                                       55
                                             Clerk
                                                                   45000
                        Singh
                                                           M01
                                                                            Dehradun
          Singh
                        Vikas
                                       53
E05
                                            Clerk
                                                           M04
                                                                   35000
                                                                            Dehradun
 E06
          Akhilesh
                        Rao
                                       32
                                            Accountant
                                                           M03
                                                                   42000
                                                                            Dehradun
 E08
          Vijay
                        Rao
                                       35
                                            Developer
                                                          M05
                                                                   41000
                                                                            Haridwar
 E09
          Vimal
                        Jalan
                                            Clerk
                                                           M01
                                                                   25000
                                                                            Haridwar
                                       36
 E10
                        Jalan
                                            Clerk
                                                                   25000
                                                                            Haridwar
          vijay
                                       36
                                                          M02
E11
          Kamal
                        Kalash
                                       65
                                            Clerk
                                                           Me3
                                                                   90000
                                                                            Dehradun
E12
          AB
                        AC
                                       65
                                            Clerk
                                                          M03
                                                                   90000
                                                                            Dehradun
E13
          AD
                        AB
                                       65
                                            Clerk
                                                           M03
                                                                   90000
                                                                            Dehradun
E14
          AA
                        AA
                                            Clerk
                                                          M03
                                                                   90000
                                                                            Dehradun
0 rows in set (0.00 sec)
nysql> select * from emp where city like "k%";
  Emp_ID | First_Name | Last_Name | age | Post
                                                             M ID | Salary
                                                                              city
                          Mohan
                                              Accountant
                                                                              Kanpur
  E<sub>04</sub>
           Vikram
                                         57 BM
                                                             M03
                                                                      50000
                         Singh
                                                                              Kanpur
                                                                                     8 rows in set (0.00 sec)
  rows in set (0.01 sec)
                                                                                     mysql> select * from emp where city in("kanpur","lucknow");
                                                                                     +-----+
                                                                                      Emp_ID | First_Name | Last_Name | age | Post
                                                                                                                                M_ID | Salary | city
nysql> select * from emp where last_name like "s%";
 Emp_ID | First_Name | Last_Name | age | Post | M_ID | Salary | city
                                                                                      E02
                                                                                             Shiv
                                                                                                                  35 | Accountant | M01
                                                                                                                                       30000
                                                                                                       Mohan
                                                                                                                                             Kanpur
                                                                                      E03
                                                                                                                  55 AM
                                                                                                                                 M02
                                                                                             Ram
                                                                                                       Charan
                                                                                                                                       44000
                                                                                                                                             Lucknow
 E01
          Arjun
                       Singh
                                      55 | Clerk
                                                  M01
                                                           45000
                                                                   Dehradun
                                                                                                       Singh
                                                                                             Vikram
                                                                                                                  57 | BM
                                                                                                                                 M03
                                                                                                                                       50000
                                                                                                                                             Kanpur
 E04
                       Singh
                                     57 | BM
                                                  MØ3
                                                           50000
          Vikram
                                                                   Kanpur
                                                                                      E07
                                                                                             Akshay
                                                                                                                  32 | Trainer
                                                                                                                                 M04
                                                                                                                                       43000
                                                                                                       Kumar
                                                                                                                                             Lucknow
 rows in set (0.01 sec)
                                                                                     4 rows in set (0.00 sec)
```

Show the employee salary between 30000 and 40000 Show the employee firstname age post whose city Kanpur Show the employee post=clerk

```
mysql> select * from emp where salary between 30000 and 40000;
                                                                          city
 Emp_ID | First_Name
                                                         M_ID
                                                                 Salary
                        Last_Name
                                            Post
           Shiv
 E02
                        Mohan
                                                          M01
                                       35
                                            Accountant
                                                                  30000
                                                                          Kanpur
 E05
          Singh
                        Vikas
                                                                          Dehradun
                                       53
                                            Clerk
                                                          M<sub>0</sub>4
                                                                  35000
 rows in set (0.00 sec)
mysql> select first_name,age,post,city from emp where city="kanpur";
 first_name
               age
                                     city
 Shiv
                  35
                       Accountant
                                      Kanpur
 Vikram
                  57
                                      Kanpur
 rows in set (0.00 sec)
mysql> select first_name,age,post,city from emp where post="clerk";
 first_name
               age
                       post
                                city
 Arjun
                  55
                       Clerk
                                Dehradun
 Singh
                  53
                       Clerk
                                Dehradun
 Vimal
                  36
                       Clerk
                                Haridwar
 vijay
                  36
                       Clerk
                                Haridwar
 Kamal
                  65
                       Clerk
                                Dehradun
 AB
                  65
                       Clerk
                                Dehradun
 AD
                  65
                       Clerk
                                Dehradun
 AA
                  65
                       Clerk
                                Dehradun
```

Null value

```
Column count doesn't match value count at row 1
insert into emp values("E15", "Nikhil", null, 55, "Student", "M05", null, "Dehradun");
Query OK, 1 row affected (0.14 sec)
mysql> desc emp;
 Field
                         Null | Key | Default | Extra
            Type
 Emp_ID
                                PRI
             varchar(20)
                         NO
                                     NULL
 First Name
             varchar(20)
                          YES
                                MUL
                                     NULL
 Last_Name
             varchar(20)
                          YES
                                MUL
                                     NULL
 age
             int
                          YES
                                     NULL
 Post
             varchar(10)
                          YES
                                     NULL
 M ID
             varchar(10)
                          YES
                                     NULL
 Salary
             int
                          YES
                                     NULL
 city
             varchar(10) | YES
                                     NULL
 rows in set (0.08 sec)
                                                                                        Activate Windows
                 varchar(10) YES
 rows in set (0.01 sec)
mysql> select * from emp where post is null;
  Emp_ID | First_Name | Last_Name | age | Post | M_ID | Salary | city
  E16
            NULL
                            NULL
                                          NULL
                                                  NULL | NULL
                                                                      NULL
                                                                              Dehradun
 row in set (0.00 sec)
mysql> _
```

Custom column bonus 10% of salary Custom column final salary salary + bonus

```
ysql> select first_Name, salary*10/100 as bonus from employee;
first_Name | bonus
Arjun
             4500.0000
Shiv
             3500.0000
              5500.0000
Ram
             5500.0000
Ram
Singh
             3000.0000
Ayush
             5000.0000
Nikhil
                   NULL
rows in set (0.00 sec)
```

ysql> select	first_nam	ne,salary,sa	lary*10/100 as	bonus,salary+salary*10/100	as	Final_Salary	from	emp;
	+		+	+				
first_name	salary	bonus	Final_Salary	I				
	+		+	+				
Arjun	45000	4500.0000	49500.0000	I	~			
Shiv	30000	3000.0000	33000.0000	1				
Ram	44000	4400.0000	48400.0000	1				
Vikram	50000	5000.0000	55000.0000	1				
Singh	35000	3500.0000	38500.0000	1				
Akhilesh	42000	4200.0000	46200.0000	1				
Akshay	43000	4300.0000	47300.0000	I				
Vijay	41000	4100.0000	45100.0000	1				
Vimal	25000	2500.0000	27500.0000	I				
vijay	25000	2500.0000	27500.0000	1				
Kamal	90000	9000.0000	99000.0000	I				
AB	90000	9000.0000	99000.0000	<u> </u>				Activate

ALTER TABLE table name ADD column name datatype;

ALTER TABLE table name DROP COLUMN column name;

ALTER TABLE table name
MODIFY COLUMN column name datatype;

alter table mytable change age EmpAge int;

alter table my rename to mytable;

Alter table add bonus column.

Update bonus 700 of emp id e02.

Update bonus 10% of salary.

Change bonus column data type to int.

Drop column bonus.

Alter column name M_id to manager_ID

mysql> alter table emp add column bonus float; Query OK, 0 rows affected (0.52 sec) Records: 0 Duplicates: 0 Warnings: 0 mysql> select * from emp;								
Emp_ID	First_Name	+ Last_Name	+ age	Post	M_ID	Salary	+ city	bonus
E01	Arjun	Singh	55	Clerk	M01	45000	Dehradun	NULL
E02	Shiv	Mohan	35	Accountant	M01	30000	Kanpur	NULL
E03	Ram	Charan	55	AM	M02	44000	Lucknow	NULL
E04	Vikram	Singh	57	ВМ	M03	50000	Kanpur	NULL
E05	Singh	Vikas	53	Clerk	M04	35000	Dehradun	NULL
E06	Akhilesh	Rao	32	Accountant	M03	42000	Dehradun	NULL
E07	Akshay	Kumar	32	Trainer	M04	43000	Lucknow	NULL
E08	Vijay	Rao	35	Developer	M05	41000	Haridwar	NULL
E09	Vimal	Jalan	36	Clerk	M01	25000	Haridwar	NULL
E10	vijay	Jalan	36	Clerk	M02	25000	Haridwar	NULL
E11	Kamal	Kalash	65	Clerk	M03	90000	Dehradun	NULL
E12	AB	AC	65	Clerk	M03	90000	Dehradun	NULL
E13	AD	AB	65	Clerk	M03	90000	Dehradun	NULL
E14	AA	AA	65	Clerk	M03	90000	Dehradun	NULL
E15	Nikhil	NULL	55	Student	M05	NULL	Dehradun	NULL
E16	NULL	NULL	NULL	NULL	NULL	NULL	Dehradun	NULL

```
mysql> update emp set bonus=700 where emp_id="e02";
Query OK, 1 row affected (0.08 sec)
Rows matched: 1 Changed: 1 Warnings: 0
mysql> select * from emp;
                                                         M_ID | Salary | city
           First Name | Last Name | age
                                            Post
  Emp ID
                                                                                      bonus
                                            Clerk
                                                                          Dehradun
 E01
           Arjun
                        Singh
                                       55
                                                          M01
                                                                  45000
                                                                                        500
  E02
           Shiv
                        Mohan
                                       35
                                                          M01
                                                                  30000
                                                                          Kanpur
                                                                                        700
                                            Accountant
  E03
                                                                  44999
           Ram
                        Charan
                                             \Delta M
                                                          M02
mysql> update emp set bonus=salary*10/100;
Query OK, 14 rows affected (0.02 sec)
Rows matched: 16 Changed: 14 Warnings: 0
mysql> select * from emp;
  Emp ID | First Name | Last Name |
                                                             Salary
                                                                      city
                                   age
                                          Post
                                                       M_ID
                                                                                 bonus
```

Singh

Mohan

Charan

Singh

Vikas

Kumar

Rao

55

35

55

57

53

32

32

Clerk

Clerk

Trainer

AM

BM

Accountant

Accountant

M01

M01

M₀2

M₀3

M₀4

M₀3

M₀4

45000

30000

44000

50000

35000

42000

43000

Dehradun

Kanpur

Lucknow

Kanpur

Dehradun

Dehradun

Lucknow

4500

3000

4400

5000

3500

4200

4300

E01

E02

E03

E04

E05

E06

E07

Egg

Arjun

Shiv

Ram

Vikram

Akshay

Akhilesh

Singh

```
Records: 16 Duplicates: 0 Warnings: 0
mysql> alter table emp drop column bonus;
Query OK, 0 rows affected (0.08 sec)
Records: 0 Duplicates: 0 Warnings: 0
mysql> alter table emp change M_ID Manager_ID varchar(10);
Query OK, 0 rows affected (0.07 sec)
Records: 0 Duplicates: 0 Warnings: 0
mysql> select * from emp;
  Emp_ID | First_Name | Last_Name |
                                        Post
                                                    Manager ID | Salary | city
                                 age
  E01
          Arjun
                      Singh
                                        Clerk
                                                    M01
                                                                 45000
                                                                         Dehradun
  E02
          Shiv
                      Mohan
                                   35 I
                                       Accountant
                                                                 30000
                                                    M01
                                                                        Kanpur
  E03
          Ram
                      Charan
                                   55
                                        AM
                                                    M02
                                                                 44000
                                                                        Lucknow
  E04
          Vikram
                      Singh
                                   57
                                        BM
                                                    M03
                                                                 50000
                                                                        Kanpur
  E05
                                       Clerk
                                                    M<sub>0</sub>4
                                                                        Dehradun
          Singh
                      Vikas
                                   53 l
                                                                 35000
          Akhilesh
  E06
                      Rao
                                    32
                                        Accountant
                                                    M03
                                                                 42000
                                                                        Dehradun
  E07
          Akshay
                                   32
                                        Trainer
                                                    M<sub>0</sub>4
                                                                 43000
                                                                        Lucknow
                      Kumar
  E08
          Vijay
                                    35
                                        Developer
                                                                 41000
                                                                        Haridwar
                      Rao
                                                    M05
          Vimal
                                        Clerk
                                                                 25000
                                                                        Haridwar
  E09
                      Jalan
                                    36
                                                    M01
  E10
          vijay
                      Jalan
                                    36
                                        Clerk
                                                    M02
                                                                 25000
                                                                        Haridwar
  E11
          Kamal
                      Kalash
                                   65
                                        Clerk
                                                    M03
                                                                 90000
                                                                        Dehradun
  E12
          AB
                      AC
                                    65
                                        Clerk
                                                    M03
                                                                 90000
                                                                        Dehradun
  E13
          AD
                      AB
                                    65
                                        Clerk
                                                    M03
                                                                 90000
                                                                        Dehradun
  E14
          AA
                      AA
                                        Clerk
                                                                        Dehradun
                                                    M03
                                                                 90000
```

mysql> alter table emp modify column bonus int;

Query OK, 16 rows affected (0.40 sec)

Queries with limit

```
mysgl> select*from employee order by salary asc:
           First_Name
                        last_Name
                                                         Salary |
                                                                                   basic
                                       21
25
28
32
 E005
           Ayush
                        Barthwal
                                            CA
                                                          20000
                                                                  Dehradun
                                                                                    2000
 E002
                                            Analyst
                                                                                    5000
           Jane
                        Smith
                                                          50000
                                                                  Los Angeles
                                            Developer
 E003
                                                                                    5500
           David
                                                          55000
                        Brown
                                                                  Chicago
 E004
                                                                                    5800
           Alice
                        Johnson
                                            Designer
                                                          58000
                                                                  San Francisco
 E001
           John
                                            Manager
                                                          60000
                                                                  New York
                                                                                    6000
 rows in set (0.00 sec)
mysql> select *from employee where city="Dehradun"limit 5;
 Emp_ID | First_Name | last_Name |
                                               Post | Salary | city
                                       age
                                                                              basic
 E005
                                                        20000 1
                                                                               2000
           Ayush
                          Barthwal
                                               CA
                                                                 Dehradun
 row in set (0.00 sec)
mysql> select*from employee limit 2,3;
 Emp_ID | First_Name |
                        last_Name
                                                         Salary | city
                                                                                   basic
                                     age
                                            Post
 E003
                                       28
                                            Developer
                                                          55000
                                                                  Chicago
                                                                                     5500
           David
                        Brown
 E004
                                       32
                                                                                     5800
           Alice
                        Johnson
                                            Designer
                                                          58000
                                                                   San Francisco
 E005
          Ayush
                                                          20000
                                                                                     2000
                        Barthwal
                                                                   Dehradun
 rows in set (0.00 sec)
```

```
mysql> select *from employee where city="Dehradun"limit 5;
Emp_ID | First_Name | last_Name
                                           Post | Salary | city
                                    age
                                                                       basic
 E005
                        Barthwal
                                      21
                                                    20000
                                                            Dehradun
                                                                        2000
          Ayush
                                           CA
1 row in set (0.00 sec)
mysql> select*from employee limit 2,3;
                                                        Salary | city
 Emp_ID |
          First_Name
                       last_Name
                                                                                 basic
                                    age
                                           Post
 E003
          David
                                      28
                                           Developer
                                                         55000
                                                                 Chicago
                                                                                   5500
                        Brown
 E004
          Alice
                        Johnson
                                      32
                                           Designer
                                                         58000
                                                                 San Francisco
                                                                                   5800
 E005
                                                         20000
                                      21
                                                                 Dehradun
                                                                                   2000
          Ayush
                        Barthwal
                                           CA
3 rows in set (0.00 sec)
mysql> select*from employee order by salary desc limit 2,1;
 Emp_ID | First_Name | last_Name
                                                        Salary | city
                                    age
                                           Post
                                                                           basic
 E003
                                      28
                                           Developer
                                                         55000
                                                                 Chicago
          David
                        Brown
row in set (0.00 sec)
```