

1)

```
mysql> CREATE TABLE employee (  
->     emp_id int(20),  
->     f_name varchar(50),  
->     l_name varchar(50),  
->     job_type varchar(50),  
->     salary int(20),  
->     dept varchar(50),  
->     commission char(20),  
->     manager_id int(20)  
-> );  
Query OK, 0 rows affected, 3 warnings (0.01 sec)  
  
mysql> desc employee;  
+-----+-----+-----+-----+-----+-----+  
| Field      | Type          | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| emp_id     | int           | YES  |     | NULL    |       |  
| f_name     | varchar(50)   | YES  |     | NULL    |       |  
| l_name     | varchar(50)   | YES  |     | NULL    |       |  
| job_type   | varchar(50)   | YES  |     | NULL    |       |  
| salary     | int           | YES  |     | NULL    |       |  
| dept       | varchar(50)   | YES  |     | NULL    |       |  
| commission | char(20)      | YES  |     | NULL    |       |  
| manager_id | int           | YES  |     | NULL    |       |  
+-----+-----+-----+-----+-----+-----+  
8 rows in set (0.00 sec)
```

2)

```
mysql> ALTER TABLE employee  
-> ADD CONSTRAINT pk_employees PRIMARY KEY (emp_id);  
Query OK, 0 rows affected (0.03 sec)  
Records: 0 Duplicates: 0 Warnings: 0  
  
mysql> desc employee;  
+-----+-----+-----+-----+-----+-----+  
| Field      | Type          | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| emp_id     | int           | NO   | PRI | NULL    |       |  
| f_name     | varchar(50)   | YES  |     | NULL    |       |  
| l_name     | varchar(50)   | YES  |     | NULL    |       |  
| job_type   | varchar(50)   | YES  |     | NULL    |       |  
| salary     | int           | YES  |     | NULL    |       |  
| dept       | varchar(50)   | YES  |     | NULL    |       |  
| commission | int           | YES  |     | NULL    |       |  
| manager_id | int           | YES  |     | NULL    |       |  
+-----+-----+-----+-----+-----+-----+  
8 rows in set (0.00 sec)
```

3)

```
mysql> ALTER TABLE employee
-> MODIFY COLUMN f_name varchar(50) NOT NULL,
-> MODIFY COLUMN salary int(20) NOT NULL;
Query OK, 0 rows affected, 1 warning (0.02 sec)
Records: 0 Duplicates: 0 Warnings: 1
```

```
mysql> desc employee;
```

Field	Type	Null	Key	Default	Extra
emp_id	int	NO	PRI	NULL	
f_name	varchar(50)	NO		NULL	
l_name	varchar(50)	YES		NULL	
job_type	varchar(50)	YES		NULL	
salary	int	NO		NULL	
dept	varchar(50)	YES		NULL	
commission	int	YES		NULL	
manager_id	int	YES		NULL	

8 rows in set (0.00 sec)

4)

```
mysql> ALTER TABLE employee
-> ADD date_of_joining varchar(25);
Query OK, 0 rows affected (0.01 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql> desc employee;
```

Field	Type	Null	Key	Default	Extra
emp_id	int	NO	PRI	NULL	
f_name	varchar(50)	NO		NULL	
l_name	varchar(50)	YES		NULL	
job_type	varchar(50)	YES		NULL	
salary	int	NO		NULL	
dept	varchar(50)	YES		NULL	
commission	int	YES		NULL	
manager_id	int	YES		NULL	
date_of_joining	varchar(25)	YES		NULL	

9 rows in set (0.00 sec)

5)

```
mysql> CREATE TABLE department (
->     d_name varchar(50) NOT NULL PRIMARY KEY,
->     d_loc varchar(50),
->     HOD_id int(20)
-> );
```

Query OK, 0 rows affected, 1 warning (0.02 sec)

```
mysql> desc department;
```

Field	Type	Null	Key	Default	Extra
d_name	varchar(50)	NO	PRI	NULL	
d_loc	varchar(50)	YES		NULL	
HOD_id	int	YES		NULL	

3 rows in set (0.00 sec)

6)

```
mysql> CREATE TABLE location (
->     loc_id int(20) NOT NULL PRIMARY KEY,
->     city varchar(50),
->     contact_no int(20)
-> );
```

Query OK, 0 rows affected, 2 warnings (0.01 sec)

```
mysql> desc location;
```

Field	Type	Null	Key	Default	Extra
loc_id	int	NO	PRI	NULL	
city	varchar(50)	YES		NULL	
contact_no	int	YES		NULL	

3 rows in set (0.00 sec)

7)

```
mysql> ALTER TABLE location
-> MODIFY city VARCHAR(55);
```

Query OK, 0 rows affected (0.01 sec)

Records: 0 Duplicates: 0 Warnings: 0

```
mysql> desc location;
```

Field	Type	Null	Key	Default	Extra
loc_id	int	NO	PRI	NULL	
city	varchar(55)	YES		NULL	
contact_no	int	YES		NULL	

3 rows in set (0.00 sec)

8)

```
mysql> ALTER TABLE location
-> DROP COLUMN contact_no;
Query OK, 0 rows affected (0.01 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> desc location;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| loc_id | int           | NO   | PRI | NULL    |       |
| city   | varchar(55)   | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)
```

9)

```
mysql> ALTER TABLE employee
-> ADD CONSTRAINT FK_employee FOREIGN KEY (dept)
-> REFERENCES department(d_name);
Query OK, 0 rows affected (0.03 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> desc employee;
+-----+-----+-----+-----+-----+-----+
| Field          | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| emp_id         | int           | NO   | PRI | NULL    |       |
| f_name         | varchar(50)   | NO   |     | NULL    |       |
| l_name         | varchar(50)   | YES  |     | NULL    |       |
| job_type       | varchar(50)   | YES  |     | NULL    |       |
| salary         | int           | NO   |     | NULL    |       |
| dept           | varchar(50)   | YES  | MUL | NULL    |       |
| commission     | int           | YES  |     | NULL    |       |
| manager_id     | int           | YES  |     | NULL    |       |
| date_of_joining | varchar(25)   | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
9 rows in set (0.00 sec)

mysql> desc department;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| d_name | varchar(50)   | NO   | PRI | NULL    |       |
| d_loc  | varchar(50)   | YES  |     | NULL    |       |
| HOD_id | int           | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

10)

```
mysql> ALTER TABLE location
-> RENAME COLUMN city TO address;
Query OK, 0 rows affected (0.01 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql> desc location;
```

Field	Type	Null	Key	Default	Extra
loc_id	int	NO	PRI	NULL	
address	varchar(55)	YES		NULL	

2 rows in set (0.00 sec)

11)

```
mysql> ALTER TABLE location
-> RENAME TO loc;
Query OK, 0 rows affected (0.01 sec)
```

```
mysql> show tables;
```

Tables_in_assignment2
department
employee
loc

3 rows in set (0.00 sec)

12)

```
mysql> INSERT INTO loc
-> VALUES
-> (1, 'Kolkata'),
-> (2, 'Mumbai');
Query OK, 2 rows affected (0.00 sec)
Records: 2  Duplicates: 0  Warnings: 0

mysql> select *from loc;
+-----+-----+
| loc_id | address |
+-----+-----+
|      1 | Kolkata |
|      2 | Mumbai  |
+-----+-----+
2 rows in set (0.00 sec)
```

13)

```
mysql> TRUNCATE TABLE loc;
Query OK, 0 rows affected (0.01 sec)

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

14)

```
mysql> DROP TABLE loc;
Query OK, 0 rows affected (0.01 sec)

mysql> show tables;
+-----+
| Tables_in_assignment2 |
+-----+
| department            |
| employee              |
+-----+
2 rows in set (0.00 sec)
```

15)

```
mysql> INSERT INTO department
-> VALUES
-> ('Sales', 'Kol', 4),
-> ('Accounts', 'Delhi', 6),
-> ('Production', 'Kol', 1),
-> ('Marketing', 'Kol', 2),
-> ('R&D', 'Marketing', 8);
Query OK, 5 rows affected (0.00 sec)
Records: 5  Duplicates: 0  Warnings: 0

mysql> SELECT *FROM department;
+-----+-----+-----+
| d_name      | d_loc      | HOD_id |
+-----+-----+-----+
| Accounts    | Delhi      | 6      |
| Marketing   | Kol        | 2      |
| Production  | Kol        | 1      |
| R&D         | Marketing  | 8      |
| Sales       | Kol        | 4      |
+-----+-----+-----+
5 rows in set (0.00 sec)
```

16)

```
mysql> INSERT INTO employee
-> VALUES
-> (1,'Arun','Khan','Manager',90000,NULL,'Production',NULL,'04-Jan-1998'),
-> (2,'Barun','Kumar','Manager',80000,NULL,'Marketing',NULL,'09-Feb-1998'),
-> (3,'Chitra','Kapoor','Engineer',60000,NULL,'Production',1,'08-Jan-1998'),
-> (4,'Dheeraj','Mishra','Manager',75000,NULL,'Sales',4,'27-Dec-2001'),
-> (5,'Emma','Dutt','Engineer',55000,NULL,'Production',1,'20-Mar-2002'),
-> (6,'Floki','Dutt','Accountant',70000,NULL,'Accounts',NULL,'16-Jul-2000'),
-> (7,'Dheeraj','Kumar','Clerk',40000,NULL,'Accounts',6,'01-Jul-2016'),
-> (8,'Saul','Good','Engineer',60000,NULL,'R&D',NULL,'06-Sep-2014'),
-> (9,'Mou','Bhat','Clerk',30000,NULL,'Sales',4,'08-Mar-2001'),
-> (10,'Sunny','Deol','Salesman',20000,10000,'Marketing',2,'31-Mar-2001'),
-> (11,'Bobby','Deol','Engineer',35000,NULL,'R&D',8,'17-Oct-2017'),
-> (12,'Aamir','Khan','Salesman',15000,5000,'Marketing',2,'11-Jan-2013');
Query OK, 12 rows affected (0.00 sec)
Records: 12 Duplicates: 0 Warnings: 0
```

```
mysql> SELECT *FROM employee;
```

	emp_id	f_name	l_name	job_type	salary	dept	commission	manager_id	date_of_joining
	1	Arun	Khan	Manager	90000	NULL	Production	NULL	04-Jan-1998
	2	Barun	Kumar	Manager	80000	NULL	Marketing	NULL	09-Feb-1998
	3	Chitra	Kapoor	Engineer	60000	NULL	Production	1	08-Jan-1998
	4	Dheeraj	Mishra	Manager	75000	NULL	Sales	4	27-Dec-2001
	5	Emma	Dutt	Engineer	55000	NULL	Production	1	20-Mar-2002
	6	Floki	Dutt	Accountant	70000	NULL	Accounts	NULL	16-Jul-2000
	7	Dheeraj	Kumar	Clerk	40000	NULL	Accounts	6	01-Jul-2016
	8	Saul	Good	Engineer	60000	NULL	R&D	NULL	06-Sep-2014
	9	Mou	Bhat	Clerk	30000	NULL	Sales	4	08-Mar-2001
	10	Sunny	Deol	Salesman	20000	10000	Marketing	2	31-Mar-2001
	11	Bobby	Deol	Engineer	35000	NULL	R&D	8	17-Oct-2017
	12	Aamir	Khan	Salesman	15000	5000	Marketing	2	11-Jan-2013

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