

```
Command Prompt - mysql -u x + v
mysql> select * from student;
+----+-----+-----+-----+
| id | name | address | percentage |
+----+-----+-----+-----+
| 1 | Ram | Pune | 56.67 |
| 2 | Sham | Pune | 46.86 |
+----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql> desc student;
+----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+----+-----+-----+-----+-----+-----+
| id | int | NO | PRI | NULL | |
| name | varchar(20) | NO | | NULL | |
| address | varchar(20) | YES | | NULL | |
| percentage | float | YES | | NULL | |
+----+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql> alter table student modify address varchar(50);
Query OK, 0 rows affected (0.01 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> alter table student modify percentage double;
Query OK, 2 rows affected (0.05 sec)
Records: 2 Duplicates: 0 Warnings: 0

mysql> desc student;
+----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+----+-----+-----+-----+-----+-----+
| id | int | NO | PRI | NULL | |
| name | varchar(20) | NO | | NULL | |
| address | varchar(50) | YES | | NULL | |
| percentage | double | YES | | NULL | |
+----+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql> |
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Command Prompt - mysql -u x + v
Query OK, 0 rows affected (0.01 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> alter table student modify percentage double;
Query OK, 2 rows affected (0.05 sec)
Records: 2 Duplicates: 0 Warnings: 0

mysql> desc student;
+----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+----+-----+-----+-----+-----+-----+
| id | int | NO | PRI | NULL | |
| name | varchar(20) | NO | | NULL | |
| address | varchar(50) | YES | | NULL | |
| percentage | double | YES | | NULL | |
+----+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql> alter table student add column email varchar(20);
Query OK, 0 rows affected (0.02 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> alter table student add column mobileno varchar(10);
Query OK, 0 rows affected (0.02 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> desc student;
+----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+----+-----+-----+-----+-----+-----+
| id | int | NO | PRI | NULL | |
| name | varchar(20) | NO | | NULL | |
| address | varchar(50) | YES | | NULL | |
| percentage | double | YES | | NULL | |
| email | varchar(20) | YES | | NULL | |
| mobileno | varchar(10) | YES | | NULL | |
+----+-----+-----+-----+-----+-----+
6 rows in set (0.00 sec)

mysql> |
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```
Command Prompt - mysql -u x + v
Query OK, 0 rows affected (0.02 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> alter table student add column mobileno varchar(10);
Query OK, 0 rows affected (0.02 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> desc student;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id    | int  | NO   | PRI | NULL    |       |
| name  | varchar(20) | NO   |     | NULL    |       |
| address | varchar(50) | YES  |     | NULL    |       |
| percentage | double | YES  |     | NULL    |       |
| email | varchar(20) | YES  |     | NULL    |       |
| mobileno | varchar(10) | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.00 sec)

mysql> drop column mobileno from student;
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 'column mobileno from student' at line 1
mysql> alter table student drop column mobileno;
Query OK, 0 rows affected (0.02 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> desc student;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id    | int  | NO   | PRI | NULL    |       |
| name  | varchar(20) | NO   |     | NULL    |       |
| address | varchar(50) | YES  |     | NULL    |       |
| percentage | double | YES  |     | NULL    |       |
| email | varchar(20) | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)

mysql>
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Command Prompt - mysql -u x + v

mysql> drop column mobileno from student;
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 'column mobileno from student' at line 1
mysql> alter table student drop column mobileno;
Query OK, 0 rows affected (0.02 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> desc student;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id    | int  | NO   | PRI | NULL    |       |
| name  | varchar(20) | NO   |     | NULL    |       |
| address | varchar(50) | YES  |     | NULL    |       |
| percentage | double | YES  |     | NULL    |       |
| email | varchar(20) | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)

mysql> alter table student change column name stud_name varchar(20);
Query OK, 0 rows affected (0.08 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> alter table student change column percentage stud_percentage double;
Query OK, 0 rows affected (0.02 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> desc student;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id    | int  | NO   | PRI | NULL    |       |
| stud_name | varchar(20) | YES  |     | NULL    |       |
| address | varchar(50) | YES  |     | NULL    |       |
| stud_percentage | double | YES  |     | NULL    |       |
| email | varchar(20) | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)

mysql> |
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Command Prompt - mysql -u x + v
| address | varchar(50) | YES | | NULL | |
| stud_percentage | double | YES | | NULL | |
| email | varchar(20) | YES | | NULL | |
+-----+
5 rows in set (0.00 sec)

mysql> create table persons(id int not null,lastName varchar(20),firstName varchar(20),age int);
Query OK, 0 rows affected (0.02 sec)

mysql> desc persons;
+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+
| id | int | NO | | NULL | |
| lastName | varchar(20) | YES | | NULL | |
| firstName | varchar(20) | YES | | NULL | |
| age | int | YES | | NULL | |
+-----+
4 rows in set (0.00 sec)

mysql> alter table persons modify column lastName varchar(20) not null;
Query OK, 0 rows affected (0.04 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> alter table persons modify firstName varchar(20) not null;
Query OK, 0 rows affected (0.04 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> desc persons;
+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+
| id | int | NO | | NULL | |
| lastName | varchar(20) | NO | | NULL | |
| firstName | varchar(20) | NO | | NULL | |
| age | int | YES | | NULL | |
+-----+
4 rows in set (0.00 sec)

mysql> |
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Command Prompt - mysql -u x + v
| firstName | varchar(20) | YES | | NULL | |
| age | int | YES | | NULL | |
+-----+
4 rows in set (0.00 sec)

mysql> alter table persons modify column lastName varchar(20) not null;
Query OK, 0 rows affected (0.04 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> alter table persons modify firstName varchar(20) not null;
Query OK, 0 rows affected (0.04 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> desc persons;
+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+
| id | int | NO | | NULL | |
| lastName | varchar(20) | NO | | NULL | |
| firstName | varchar(20) | NO | | NULL | |
| age | int | YES | | NULL | |
+-----+
4 rows in set (0.00 sec)

mysql> alter table persons add constraint uniquekey unique(id,lastName);
Query OK, 0 rows affected (0.04 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> desc persons;
+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+
| id | int | NO | PRI | NULL | |
| lastName | varchar(20) | NO | PRI | NULL | |
| firstName | varchar(20) | NO | | NULL | |
| age | int | YES | | NULL | |
+-----+
4 rows in set (0.00 sec)

mysql>
```

```
Command Prompt - mysql -u < >
+ - v
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id | int | NO | | NULL | |
| lastName | varchar(20) | NO | | NULL | |
| firstName | varchar(20) | NO | | NULL | |
| age | int | YES | | NULL | |
+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql> alter table persons add constraint uniquekey unique(id,lastName);
Query OK, 0 rows affected (0.04 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> desc persons;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id | int | NO | PRI | NULL | |
| lastName | varchar(20) | NO | PRI | NULL | |
| firstName | varchar(20) | NO | | NULL | |
| age | int | YES | | NULL | |
+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql> alter table persons drop constraint uniquekey;
Query OK, 0 rows affected (0.05 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> desc persons;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id | int | NO | | NULL | |
| lastName | varchar(20) | NO | | NULL | |
| firstName | varchar(20) | NO | | NULL | |
| age | int | YES | | NULL | |
+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql>
```

```
Command Prompt - mysql -u < >
+ - v
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 ',
age int check(age>=18 and age<=26),city varchar(20))' at line 1
mysql> create table students (id int primary key,name varchar(20) not null,standard varchar(2) not null check(standard='fy' or standard='sy' or standard='ty
'),age int check(age>=18 and age<=26),city varchar(20));
Query OK, 0 rows affected (0.02 sec)

mysql> desc students;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id | int | NO | PRI | NULL | |
| name | varchar(20) | NO | | NULL | |
| standard | varchar(2) | NO | | NULL | |
| age | int | YES | | NULL | |
| city | varchar(20) | YES | | NULL | |
+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)

mysql> insert into students values(1,'Ram','ty',20,'Pune');
Query OK, 1 row affected (0.01 sec)

mysql> insert into students values(1,'sham','TY',20,'Pune');
ERROR 1062 (23000): Duplicate entry '1' for key 'students.PRIMARY'
mysql> insert into students values(2,'sham','TY',20,'Pune');
Query OK, 1 row affected (0.01 sec)

mysql> insert into students values(3,'raj','ly',20,'Pune');
ERROR 3819 (HY000): Check constraint 'students_chk_1' is violated.
mysql> insert into students values(3,'raj','fy',16,'Pune');
ERROR 3819 (HY000): Check constraint 'students_chk_2' is violated.
mysql> select * from students;
+-----+-----+-----+-----+-----+
| id | name | standard | age | city |
+-----+-----+-----+-----+-----+
| 1 | Ram | ty | 20 | Pune |
| 2 | sham | TY | 20 | Pune |
+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql>
```