

Ex,no 2. DDL Commands with Constraints – PRIMARY, FOREIGN KEY, UNIQUE,CHECK

1) Alter the table STUDENT with following structure.

S.No	Column	Constraints
1	RegNo	PRIMARY KEY
2	MobileNo	NotNull

```
MySQL 5.5 Command Line Client
Enter password: *****
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 9
Server version: 5.5.62 MySQL Community Server (GPL)

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Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use student;
Database changed
mysql> alter table student modify mobileno integer(10) notnull;
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 'notnull' at line 1
mysql> alter table student modify mobileno integer(10) not null;
Query OK, 0 rows affected (0.03 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> describe student;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| regno | int(3) | NO | PRI | 0 |  |
| name | varchar(15) | YES |  | NULL |  |
| gender | char(1) | YES |  | NULL |  |
| dob | date | YES |  | NULL |  |
| mobileno | int(10) | NO |  | NULL |  |
| city | varchar(15) | YES |  | NULL |  |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.02 sec)

mysql> _
```

2) Alter the table name FACULTY with following structure. The DeptNo in this table refers the DeptNo in the DEPARTMENT table.

S.No	Column	Constraints
1	FacNo	PRIMARY KEY
2	Gender	Check 'M' or 'F'

```

MySQL 5.5 Command Line Client

mysql> describe student;
+-----+-----+-----+-----+-----+-----+
| Field | Type   | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| regno | int(3) | NO   | PRI | 0        |       |
| name  | varchar(15) | YES |     | NULL    |       |
| gender | char(1) | YES |     | NULL    |       |
| dob   | date   | YES |     | NULL    |       |
| mobileno | int(10) | NO   |     | NULL    |       |
| city  | varchar(15) | YES |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.02 sec)

mysql> use faculty;
Database changed
mysql> alter table faculty add primary key(facno);
Query OK, 0 rows affected (0.15 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> alter table faculty add check(gender='m'or'f');
Query OK, 0 rows affected (0.02 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> describe faculty;
+-----+-----+-----+-----+-----+-----+
| Field | Type   | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| facno | varchar(4) | NO   | PRI | NULL    |       |
| facname | varchar(15) | YES |     | NULL    |       |
| gender | char(1) | YES |     | NULL    |       |
| dob   | date   | YES |     | NULL    |       |
| doj   | date   | YES |     | NULL    |       |
| mobileno | int(10) | YES |     | NULL    |       |
| deptno | varchar(4) | YES |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
7 rows in set (0.02 sec)

mysql> .

```

1 new notification

3) Alter the FACULTY table is successfully created, test if you add a constraint FOREIGN KEY to the DeptNo of this table.

```
mysql> alter table faculty add foreign key(deptno) references department(deptno);
Query OK, 0 rows affected (0.04 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql> describe faculty;
```

Field	Type	Null	Key	Default	Extra
facno	varchar(4)	NO	PRI		
facname	varchar(15)	YES		NULL	
gender	char(1)	YES		NULL	
dob	date	YES		NULL	
doj	date	YES		NULL	
mobileno	int(10)	YES		NULL	
deptno	varchar(4)	YES	MUL	NULL	

7 rows in set (0.02 sec)

4) Alter the table name DEPARTMENT with following structure.

S.No	Column	Constraints
1	DeptNo	PRIMARY KEY

Select MySQL 5.5 Command Line Client

```
mysql> alter table department add primary key(deptno);
Query OK, 0 rows affected (0.04 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql> describe department;
```

Field	Type	Null	Key	Default	Extra
deptno	varchar(4)	NO	PRI		
deptname	varchar(15)	YES		NULL	
depthead	varchar(4)	YES		NULL	

3 rows in set (0.01 sec)

```
mysql> alter table faculty add foreign key(deptno) references department(deptno);
Query OK, 0 rows affected (0.04 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql> describe faculty;
```

Field	Type	Null	Key	Default	Extra
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5. Alter the table name COURSE with following Structure

S.No	Column	Constraints
1	CourseNo	PRIMARY KEY
2	SemNo	1 to 6

MySQL 5.5 Command Line Client

```
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Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 12
Server version: 5.5.62 MySQL Community Server (GPL)

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mysql> use test;
Database changed
mysql> alter table course add primary key(courseno);
Query OK, 0 rows affected (0.04 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> alter table course add check(semno between 1 and 6);
Query OK, 0 rows affected (0.01 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> describe course;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| courseno   | varchar(3)    | NO   | PRI |          |       |
| coursedesc | varchar(14)   | YES  |     | NULL    |       |
| coursetype | char(1)       | YES  |     | NULL    |       |
| semno      | char(1)       | YES  |     | NULL    |       |
| hallno     | varchar(4)    | YES  |     | NULL    |       |
| facno      | varchar(4)    | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.02 sec)

mysql>
```