

Ex.No. 2

Date:

## DDL Commands with Constraints – PRIMARY, FOREIGN KEY, UNIQUE, CHECK

### AIM:

To add the constraints like primary key, foreign key, unique key and check using DDL commands.

1) Alter the table STUDENT with following structure.

	Column #Name	Constraints
		PRIMARY
1	RegNo	KEY
2	MobileNo	NOT NULL

```
mysql> alter table STUDENT add PRIMARY KEY(RegNo);
Query OK, 0 rows affected (0.03 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> alter table STUDENT modify column mobile int(10) NOT NULL;
Query OK, 0 rows affected, 1 warning (0.03 sec)
Records: 0  Duplicates: 0  Warnings: 1

mysql> desc STUDENT;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| RegNo | int           | NO   | PRI | NULL    |       |
| name  | varchar(15)   | YES  |     | NULL    |       |
| gender | char(1)       | YES  |     | NULL    |       |
| DOB   | date         | YES  |     | NULL    |       |
| mobile | int           | NO   |     | NULL    |       |
| city  | varchar(15)   | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.00 sec)
```

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

#	Column Name	Constraints
1	FacNo	PRIMARY KEY
2	Gender	CHECK 'M' or 'F'

```
mysql> alter table FACULTY add PRIMARY KEY(FacNo);
Query OK, 0 rows affected (0.03 sec)
Records: 0 Duplicates: 0 Warnings: 0
mysql> alter table FACULTY add check(Gender = 'M' or 'F');
Query OK, 0 rows affected (0.03 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> desc 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    |       |
| MoblieNo | int       | YES  |     | NULL    |       |
| DeptNo | varchar(4) | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
7 rows in set (0.00 sec)
```

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

4)Alter the table name DEPARTMENT with following structure.

#	Column Name	Constraint
1	DeptNo	PRIMARY KEY

```
mysql> alter table DEPARTMENT add PRIMARY KEY(DeptNo);
Query OK, 0 rows affected (0.03 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql> desc DEPARTMENT;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| DeptNo     | varchar(4)    | NO   | PRI | NULL    |       |
| DeptName   | varchar(15)   | YES  |     | NULL    |       |
| DeptHead   | varchar(4)    | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

5) Alter the table name COURSE with following structure.

#	Column Name	Constraint
1	CourseNo	PRIMARY KEY
2	SemNo	1 to 6

```
mysql> alter table COURSE add PRIMARY KEY(CourseNo);
Query OK, 0 rows affected (0.02 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql> alter table COURSE add check(semno>=1&&semno<=6);
Query OK, 0 rows affected, 1 warning (0.03 sec)
Records: 0 Duplicates: 0 Warnings: 1
```

```
mysql> desc COURSE;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| CourseNo   | varchar(3)    | NO   | PRI | NULL    |       |
| 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 (0.00 sec)
```

6) Alter the table name COURSE with following structure.

#	Column Name	Constraint
1	FacNo	UNIQUE KEY

```
mysql> alter table COURSE add UNIQUE(FacNo);
Query OK, 0 rows affected (0.02 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql> desc COURSE;
```

Field	Type	Null	Key	Default	Extra
CourseNo	varchar(3)	NO	PRI	NULL	
CourseDesc	varchar(14)	YES		NULL	
CourseType	char(1)	YES		NULL	
SemNo	char(1)	YES		NULL	
HallNo	varchar(4)	YES		NULL	
FacNo	varchar(4)	YES	UNI	NULL	

6 rows in set (0.00 sec)