

SAMMON BABU

R MCA S2

ROLL NO – 16

### EXPERIMENT NO. 3: DDL COMMANDS and CONSTRAINTS

1. Create a table emp with attributes empno number(4) as primary key, ename char(10), hiredate, salary, commission

```
CREATE TABLE EMP(EMPNO INT(4) PRIMARY KEY,  
ENAME VARCHAR(10),  
HIREDATE DATE,  
SALARY INT,  
COMMISSION INT );
```

1. INSERT INTO EMP VALUES(101,'RAMESH','1980-1-17',5000,NULL);
  2. INSERT INTO EMP VALUES(102,'AJAY','1985-07-05',5000,500);
  3. INSERT INTO EMP VALUES(103,'RAVI','1981-08-12',1500,NULL);
  4. INSERT INTO EMP VALUES(104,'NIKESH','1983-03-03',3000,700);
  5. INSERT INTO EMP VALUES(105,'RAVI','1985-07-05',3000,NULL);
- ```
SELECT * FROM EMP;
```

```
mysql> SELECT * FROM EMP;  
+-----+-----+-----+-----+-----+  
| EMPNO | ENAME  | HIREDATE | SALARY | COMMISSION |  
+-----+-----+-----+-----+-----+  
101	RAMESH	1980-01-17	5000	NULL
102	AJAY	1985-07-05	5000	500
103	RAVI	1981-08-12	1500	NULL
104	NIKESH	1983-03-03	3000	700
105	RAVI	1985-07-05	3000	NULL
+-----+-----+-----+-----+-----+  
5 rows in set (0.01 sec)  
  
mysql>
```

#### a. Add new columns: sal number(7,2)

```
ALTER TABLE EMP ADD SAL INT(7);
```

```
mysql> ALTER TABLE EMP ADD SAL INT(7);  
Query OK, 0 rows affected, 1 warning (0.08 sec)  
Records: 0 Duplicates: 0 Warnings: 1  
  
mysql> SELECT * FROM EMP;  
+-----+-----+-----+-----+-----+-----+  
| EMPNO | ENAME  | HIREDATE | SALARY | COMMISSION | SAL |  
+-----+-----+-----+-----+-----+-----+  
101	RAMESH	1980-01-17	5000	NULL	NULL
102	AJAY	1985-07-05	5000	500	NULL
103	RAVI	1981-08-12	1500	NULL	NULL
104	NIKESH	1983-03-03	3000	700	NULL
105	RAVI	1985-07-05	3000	NULL	NULL
+-----+-----+-----+-----+-----+-----+  
5 rows in set (0.00 sec)
```

### **b.Dropping a column from a table: sal**

ALTER TABLE EMP DROP SAL;

```
mysql> ALTER TABLE EMP DROP SAL;
Query OK, 0 rows affected (0.08 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> SELECT * FROM EMP;
+-----+-----+-----+-----+-----+
| EMPNO | ENAME  | HIREDATE | SALARY | COMMISSION |
+-----+-----+-----+-----+-----+
101	RAMESH	1980-01-17	5000	NULL
102	AJAY	1985-07-05	5000	500
103	RAVI	1981-08-12	1500	NULL
104	NIKESH	1983-03-03	3000	700
105	RAVI	1985-07-05	3000	NULL
+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```

### **c.Modifying existing column :ename varchar2(15)**

ALTER TABLE EMP MODIFY ENAME VARCHAR(15);

### **d.Renaming the tables: emp to emp1**

ALTER TABLE EMP RENAME EMP1;

### **e.truncating the tables:emp1**

TRUNCATE TABLE EMP1;

```
mysql> TRUNCATE TABLE EMP1;
Query OK, 0 rows affected (0.04 sec)

mysql> SELECT * FROM EMP1;
Empty set (0.00 sec)
```

### **f.Destroying tables:emp**

DROP TABLE EMP1;

```
mysql> DROP TABLE EMP1;
Query OK, 0 rows affected (0.03 sec)

mysql> _
```

**3.Create a table stud with sname varchar2(20) primary key , rollno number(10) not null,dob date not null**

```
CREATE TABLE STUD (SNAME VARCHAR(20) PRIMARY KEY,  
ROLLNO NUMERIC(10) NOT NULL,  
DOB DATE NOT NULL);
```

**4.Create a table student as regno number (6), mark number (3) check constraint (mark >=0 and mark <=100));**

```
CREATE TABLE STUDENT ( REGNO NUMERIC(6),  
MARK NUMERIC(3), CHECK (mark >=0 and mark <=100));
```

**In table student add check constraint(length(regno<=4))**

```
ALTER TABLE STUDENT ADD CHECK (LENGTH(REGNO)<=4);
```

```
mysql> INSERT INTO STUDENT VALUES(12,120);  
ERROR 3819 (HY000): Check constraint 'student_chk_1' is violated.  
mysql> INSERT INTO STUDENT VALUES(12223,100);  
ERROR 3819 (HY000): Check constraint 'student_chk_2' is violated.  
mysql> INSERT INTO STUDENT VALUES(122,100);  
Query OK, 1 row affected (0.01 sec)  
  
mysql> SELECT * FROM STUDENT;  
+-----+-----+  
| REGNO | MARK |  
+-----+-----+  
|    11 |    45 |  
|   122 |   100 |  
+-----+-----+  
2 rows in set (0.00 sec)
```

**5.Create a table cust with(custid number(6) constraint unique, name char(10)**

```
CREATE TABLE CUST (CUSTID NUMERIC(6) UNIQUE, NAME VARCHAR(10));
```

```
mysql> SELECT * FROM CUST;  
+-----+-----+  
| CUSTID | NAME |  
+-----+-----+  
|     11 | SAM |  
+-----+-----+  
1 row in set (0.00 sec)  
  
mysql> insert into CUST values(11, 'SAM');  
ERROR 1062 (23000): Duplicate entry '11' for key 'cust.CUSTID'  
mysql>
```

**6. Refer the table “stud” in table “ student”**

```
ALTER TABLE STUD DROP PRIMARY KEY;  
alter table stud ADD PRIMARY KEY(ROLLNO);  
ALTER TABLE STUDENT ADD FOREIGN KEY(REGNO) REFERENCES  
STUD(ROLLNO);
```

```
ALTER TABLE STUDENT
```

```
ADD FOREIGN KEY (REGNO) REFERENCES STUD (ROLLNO);
```