Lab Assignment 6

-----------------------------------------------------------------------------------------------------------------------------

Name: Prathamesh Sadashiv Gadekar

Roll no.:15

Batch: S1

Class :SE-IT

-----------------------------------------------------------------------------------------------------------------------------

mysql> **CREATE DATABASE IT\_DEPT;**

Query OK, 1 row affected (0.01 sec)

mysql> **SHOW DATABASES;**

+--------------------+

| Database |

+--------------------+

| information\_schema |

| it\_dept |

| mysql |

| performance\_schema |

| sys |

+--------------------+

5 rows in set (0.00 sec)

mysql**> USE IT\_DEPT;**

Database changed

mysql> **SHOW** **TABLES ;**

Empty set (0.01 sec)

mysql**> CREATE TABLE Students (student\_id INT primary key, name varchar(100),age INT);**

Query OK, 0 rows affected (0.03 sec)

mysql> **CREATE TABLE Courses (course\_id INT primary key, course\_name varchar(100),credits INT);**

Query OK, 0 rows affected (0.02 sec)

mysql**> CREATE TABLE Enrollments (enrollments\_id INT primary key, student\_id INT ,course\_id INT , FOREIGN KEY (Student\_id) REFERENCES Students (student\_id) , FOREIGN KEY (course\_id) REFERENCES Courses (course\_id) );**

Query OK, 0 rows affected (0.05 sec)

mysql> **SHOW TABLES ;**

+-------------------+

| Tables\_in\_it\_dept |

+-------------------+

| courses |

| enrollments |

| students |

+-------------------+

3 rows in set (0.00 sec)

mysql> **INSERT INTO Students (student\_id , name , age) VALUES (1,'Roman',22) , (2,'Dean',21) , (3,'Nikki',20) , (4,'John',21) , (5,'Braun',23) ;**

Query OK, 5 rows affected (0.02 sec)

Records: 5 Duplicates: 0 Warnings: 0

mysql> **SELECT\*FROM STUDENTS;**

+------------+-------+------+

| student\_id | name | age |

+------------+-------+------+

| 1 | Roman | 22 |

| 2 | Dean | 21 |

| 3 | Nikki | 20 |

| 4 | John | 21 |

| 5 | Braun | 23 |

+------------+-------+------+

5 rows in set (0.00 sec)

mysql> **INSERT INTO Courses (course\_id , course\_name , credits) VALUES (101,'Maths',2) , (102,'Physics',3) , (103,'Chemistry',4) , (104,'Data\_SCI',4), (105,'Algotithm',3) ;**

Query OK, 5 rows affected (0.01 sec)

Records: 5 Duplicates: 0 Warnings: 0

mysql> **SELECT\*FROM COURSES;**

+-----------+-------------+---------+

| course\_id | course\_name | credits |

+-----------+-------------+---------+

| 101 | Maths | 2 |

| 102 | Physics | 3 |

| 103 | Chemistry | 4 |

| 104 | Data\_SCI | 4 |

| 105 | Algotithm | 3 |

+-----------+-------------+---------+

5 rows in set (0.00 sec)

mysql> **INSERT INTO Enrollments (enrollments\_id , student\_id , course\_id ) VALUES (1,1,101) , (2,2,102) , (3,3,103) , (4,4,104), (5,5,105) ;**

Query OK, 5 rows affected (0.01 sec)

Records: 5 Duplicates: 0 Warnings: 0

mysql> **SELECT\*FROM ENROLLMENTS** ;

+----------------+------------+-----------+

| enrollments\_id | student\_id | course\_id |

+----------------+------------+-----------+

| 1 | 1 | 101 |

| 2 | 2 | 102 |

| 3 | 3 | 103 |

| 4 | 4 | 104 |

| 5 | 5 | 105 |

+----------------+------------+-----------+

5 rows in set (0.00 sec)

mysql> **CREATE TABLE TEST (Name Varchar(50), email varchar (100));**

Query OK, 0 rows affected (0.03 sec)

mysql> **SHOW TABLES;**

+-------------------+

| Tables\_in\_it\_dept |

+-------------------+

| courses |

| enrollments |

| students |

| test |

+-------------------+

4 rows in set (0.00 sec)

mysql> **ALTER TABLE TEST ADD PRIMARY KEY (email);**

Query OK, 0 rows affected (0.05 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> **DESCRIBE TEST;**

+-------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-------+--------------+------+-----+---------+-------+

| Name | varchar(50) | YES | | NULL | |

| email | varchar(100) | NO | PRI | NULL | |

+-------+--------------+------+-----+---------+-------+

2 rows in set (0.01 sec)

mysql**> INSERT INTO TEST (Name , email) VALUES ('Raju' , 'jokerR@gmail.com') , ('Shaam' , 'jokerS@gmail.com') ,('Baburao', 'jokerB@gamil.com');**

Query OK, 3 rows affected (0.01 sec)

Records: 3 Duplicates: 0 Warnings: 0

mysql> **SELECT \* FROM Test ;**

+---------+------------------+

| Name | email |

+---------+------------------+

| Baburao | jokerB@gamil.com |

| Raju | jokerR@gmail.com |

| Shaam | jokerS@gmail.com |

+---------+------------------+

3 rows in set (0.00 sec)

mysql> **INSERT INTO TEST (Name , email) VALUES ('Tiwari' , 'jokerR@gmail.com') ;**

**ERROR 1062 (23000): Duplicate entry 'jokerR@gmail.com' for key 'test.PRIMARY'**

mysql> **ALTER TABLE Test DROP PRIMARY KEY;**

Query OK, 3 rows affected (0.07 sec)

Records: 3 Duplicates: 0 Warnings: 0

mysql> **DESCRIBE TEST;**

+-------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-------+--------------+------+-----+---------+-------+

| Name | varchar(50) | YES | | NULL | |

| email | varchar(100) | NO | | NULL | |

+-------+--------------+------+-----+---------+-------+

2 rows in set (0.00 sec)

mysql> **ALTER TABLE Test ADD addr VARCHAR(100);**

Query OK, 0 rows affected (0.03 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> **DESCRIBE TEST;**

+-------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-------+--------------+------+-----+---------+-------+

| Name | varchar(50) | YES | | NULL | |

| email | varchar(100) | NO | | NULL | |

| addr | varchar(100) | YES | | NULL | |

+-------+--------------+------+-----+---------+-------+

3 rows in set (0.00 sec)

mysql> **SELECT\*FROM Test;**

+---------+------------------+------+

| Name | email | addr |

+---------+------------------+------+

| Baburao | jokerB@gamil.com | NULL |

| Raju | jokerR@gmail.com | NULL |

| Shaam | jokerS@gmail.com | NULL |

+---------+------------------+------+

3 rows in set (0.00 sec)

mysql> **ALTER TABLE Test DROP COLUMN addr;**

Query OK, 0 rows affected (0.03 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> **DESCRIBE TEST;**

+-------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-------+--------------+------+-----+---------+-------+

| Name | varchar(50) | YES | | NULL | |

| email | varchar(100) | NO | | NULL | |

+-------+--------------+------+-----+---------+-------+

2 rows in set (0.00 sec)

mysql> **SELECT\*FROM Test;**

+---------+------------------+

| Name | email |

+---------+------------------+

| Baburao | jokerB@gamil.com |

| Raju | jokerR@gmail.com |

| Shaam | jokerS@gmail.com |

+---------+------------------+

3 rows in set (0.00 sec)

mysql> **ALTER TABLE Enrollments ADD CONSTRAINT fk\_student FOREIGN KEY (student\_id) REFERENCES Students(student\_id);**

Query OK, 5 rows affected (0.10 sec)

Records: 5 Duplicates: 0 Warnings: 0

mysql> **SELECT\*FROM Enrollments**;

+----------------+------------+-----------+

| enrollments\_id | student\_id | course\_id |

+----------------+------------+-----------+

| 1 | 1 | 101 |

| 2 | 2 | 102 |

| 3 | 3 | 103 |

| 4 | 4 | 104 |

| 5 | 5 | 105 |

+----------------+------------+-----------+

5 rows in set (0.00 sec)

mysql> **DESCRIBE Enrollments;**

+----------------+------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+----------------+------+------+-----+---------+-------+

| enrollments\_id | int | NO | PRI | NULL | |

| student\_id | int | YES | MUL | NULL | |

| course\_id | int | YES | MUL | NULL | |

+----------------+------+------+-----+---------+-------+

3 rows in set (0.00 sec)

mysql> **ALTER TABLE Students ADD CONSTRAINT unique\_student\_name UNIQUE (name);**

Query OK, 0 rows affected (0.06 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> **DESCRIBE Students**;

+------------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+------------+--------------+------+-----+---------+-------+

| student\_id | int | NO | PRI | NULL | |

| name | varchar(100) | YES | UNI | NULL | |

| age | int | YES | | NULL | |

+------------+--------------+------+-----+---------+-------+

3 rows in set (0.00 sec)

mysql> **SELECT\*FROM Students;**

+------------+-------+------+

| student\_id | name | age |

+------------+-------+------+

| 1 | Roman | 22 |

| 2 | Dean | 21 |

| 3 | Nikki | 20 |

| 4 | John | 21 |

| 5 | Braun | 23 |

+------------+-------+------+

5 rows in set (0.00 sec)

mysql> **ALTER** **TABLE Students ADD CONSTRAINT check\_age CHECK (age >= 18);**

Query OK, 5 rows affected (0.08 sec)

Records: 5 Duplicates: 0 Warnings: 0

mysql> **DESCRIBE Students;**

+------------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+------------+--------------+------+-----+---------+-------+

| student\_id | int | NO | PRI | NULL | |

| name | varchar(100) | YES | UNI | NULL | |

| age | int | YES | | NULL | |

+------------+--------------+------+-----+---------+-------+

3 rows in set (0.00 sec)

mysql> **SELECT\*FROM Students;**

+------------+-------+------+

| student\_id | name | age |

+------------+-------+------+

| 1 | Roman | 22 |

| 2 | Dean | 21 |

| 3 | Nikki | 20 |

| 4 | John | 21 |

| 5 | Braun | 23 |

+------------+-------+------+

5 rows in set (0.00 sec)

mysql> **INSERT INTO Students (student\_id , name , age) VALUES (6 , 'Advait' ,17);**

**ERROR 3819 (HY000): Check constraint 'check\_age' is violated.**

mysql> **DESCRIBE Students;**

+------------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+------------+--------------+------+-----+---------+-------+

| student\_id | int | NO | PRI | NULL | |

| name | varchar(100) | YES | UNI | NULL | |

| age | int | YES | | NULL | |

+------------+--------------+------+-----+---------+-------+

3 rows in set (0.00 sec)

mysql> **SELECT\*FROM Students;**

+------------+-------+------+

| student\_id | name | age |

+------------+-------+------+

| 1 | Roman | 22 |

| 2 | Dean | 21 |

| 3 | Nikki | 20 |

| 4 | John | 21 |

| 5 | Braun | 23 |

+------------+-------+------+

5 rows in set (0.00 sec)

mysql> **ALTER TABLE Students MODIFY COLUMN age SMALLINT;**

Query OK, 5 rows affected (0.13 sec)

Records: 5 Duplicates: 0 Warnings: 0

mysql> **DESCRIBE Students;**

+------------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+------------+--------------+------+-----+---------+-------+

| student\_id | int | NO | PRI | NULL | |

| name | varchar(100) | YES | UNI | NULL | |

| age | smallint | YES | | NULL | |

+------------+--------------+------+-----+---------+-------+

3 rows in set (0.00 sec)

mysql> **SELECT\*FROM Students;**

+------------+-------+------+

| student\_id | name | age |

+------------+-------+------+

| 1 | Roman | 22 |

| 2 | Dean | 21 |

| 3 | Nikki | 20 |

| 4 | John | 21 |

| 5 | Braun | 23 |

+------------+-------+------+

5 rows in set (0.00 sec)

mysql> **DESCRIBE Enrollments;**

+----------------+------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+----------------+------+------+-----+---------+-------+

| enrollments\_id | int | NO | PRI | NULL | |

| student\_id | int | YES | MUL | NULL | |

| course\_id | int | YES | MUL | NULL | |

+----------------+------+------+-----+---------+-------+

3 rows in set (0.00 sec)

mysql> **SELECT\*FROM Enrollments;**

+----------------+------------+-----------+

| enrollments\_id | student\_id | course\_id |

+----------------+------------+-----------+

| 1 | 1 | 101 |

| 2 | 2 | 102 |

| 3 | 3 | 103 |

| 4 | 4 | 104 |

| 5 | 5 | 105 |

+----------------+------------+-----------+

5 rows in set (0.00 sec)

mysql> **DESCRIBE Courses;**

+-------------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-------------+--------------+------+-----+---------+-------+

| course\_id | int | NO | PRI | NULL | |

| course\_name | varchar(100) | YES | | NULL | |

| credits | int | YES | | NULL | |

+-------------+--------------+------+-----+---------+-------+

3 rows in set (0.00 sec)

mysql**> SELECT\*FROM Courses;**

+-----------+-------------+---------+

| course\_id | course\_name | credits |

+-----------+-------------+---------+

| 101 | Maths | 2 |

| 102 | Physics | 3 |

| 103 | Chemistry | 4 |

| 104 | Data\_SCI | 4 |

| 105 | Algotithm | 3 |

+-----------+-------------+---------+

5 rows in set (0.00 sec)

mysql> **DESCRIBE Test;**

+-------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-------+--------------+------+-----+---------+-------+

| Name | varchar(50) | YES | | NULL | |

| email | varchar(100) | NO | | NULL | |

+-------+--------------+------+-----+---------+-------+

2 rows in set (0.00 sec)

mysql> **SELECT\*FROM test;**

+---------+------------------+

| Name | email |

+---------+------------------+

| Baburao | jokerB@gamil.com |

| Raju | jokerR@gmail.com |

| Shaam | jokerS@gmail.com |

+---------+------------------+

3 rows in set (0.00 sec)

mysql> **SHOW TABLES ;**

+-------------------+

| Tables\_in\_it\_dept |

+-------------------+

| courses |

| enrollments |

| students |

| test |

+-------------------+

4 rows in set (0.00 sec)

mysql> **DROP TABLE ENROLLMENTS;**

Query OK, 0 rows affected (0.02 sec)

mysql> **SHOW TABLES ;**

+-------------------+

| Tables\_in\_it\_dept |

+-------------------+

| courses |

| students |

| test |

+-------------------+

3 rows in set (0.00 sec)

mysql> **DROP TABLE COURSES;**

Query OK, 0 rows affected (0.02 sec)

mysql> SHOW TABLES ;

+-------------------+

| Tables\_in\_it\_dept |

+-------------------+

| students |

| test |

+-------------------+

2 rows in set (0.00 sec)

mysql> **DROP TABLE STUDENTS;**

Query OK, 0 rows affected (0.03 sec)

mysql> **SHOW TABLES ;**

+-------------------+

| Tables\_in\_it\_dept |

+-------------------+

| test |

+-------------------+

1 row in set (0.00 sec)

mysql> **DROP TABLE TEST;**

Query OK, 0 rows affected (0.03 sec)

mysql> **SHOW TABLES ;**

Empty set (0.00 sec)

mysql>