/\*

ASSIGNMENT 7 : VIEW

Execute DDL/DML statements which demonstrate the use of views. Update the base

table using its corresponding view.

\*/

mysql> CREATE DATABASE STUDENT\_DATA;

Query OK, 1 row affected (0.01 sec)

mysql> USE STUDENT\_DATA;

Database changed

mysql>-- ================== TABLE 1.CITY ====================

mysql> CREATE TABLE CITY(

-> CITY\_ID INT NOT NULL,

-> CITY\_NAME VARCHAR(30) NOT NULL DEFAULT 'PUNE',

-> PRIMARY KEY(CITY\_ID)

-> );

Query OK, 0 rows affected (0.05 sec)

mysql> INSERT INTO CITY(CITY\_ID,CITY\_NAME)

-> VALUES

-> (1,DEFAULT),

-> (2,'DELHI'),

-> (3,'MUMBAI'),

-> (4,'CHENNI');

Query OK, 4 rows affected (0.01 sec)

Records: 4 Duplicates: 0 Warnings: 0

MYSQL>-- ================= TABLE 2.COURSES ==================

mysql> CREATE TABLE COURSES(

-> COURSE\_ID INT NOT NULL,

-> COURSE\_NAME VARCHAR(130) NOT NULL,

-> PRIMARY KEY(COURSE\_ID)

-> );

Query OK, 0 rows affected (0.04 sec)

mysql> INSERT INTO COURSES(COURSE\_ID,COURSE\_NAME)

-> VALUES

-> (1001,'INFORMATION TECHNOLOGY'),

-> (1002,'COMPUTER SCIENCE'),

-> (1003,'ELECTRONIC AND TELECOMMUNICATION'),

-> (1004,'MECHANICAL');

Query OK, 4 rows affected (0.01 sec)

Records: 4 Duplicates: 0 Warnings: 0

mysql>-- ================= TABLE 3.STUDENT ==========================

mysql> CREATE TABLE STUDENT(

-> STUDENT\_ID BIGINT NOT NULL,

-> STUDENT\_NAME VARCHAR(120) NOT NULL,

-> STUDENT\_CITY INT NOT NULL,

-> STUDENT\_COURSES INT NOT NULL,

-> PRIMARY KEY(STUDENT\_ID,STUDENT\_COURSES),

-> FOREIGN KEY(STUDENT\_CITY) REFERENCES CITY(CITY\_ID),

-> FOREIGN KEY(STUDENT\_COURSES) REFERENCES COURSES(COURSE\_ID)

-> );

Query OK, 0 rows affected (0.08 sec)

mysql> INSERT INTO STUDENT(STUDENT\_ID,STUDENT\_NAME,STUDENT\_CITY,STUDENT\_COURSES)

-> VALUES

-> (1122,'ROHAN KUMAR',1,1001),

-> (1123,'ALLU ARJUN',4,1002),

-> (2244,'NOBITA NOBI',3,1004),

-> (2245,'PRATHAMESH PATIL',1,1002),

-> (2246,'SIDDESH KUMBAR',2,1001);

Query OK, 5 rows affected (0.02 sec)

Records: 5 Duplicates: 0 Warnings: 0

mysql> SELECT \* FROM STUDENT\_DATA.CITY;

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

| CITY\_ID | CITY\_NAME |

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

| 1 | PUNE |

| 2 | DELHI |

| 3 | MUMBAI |

| 4 | CHENNI |

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

4 rows in set (0.00 sec)

mysql> SELECT \* FROM STUDENT\_DATA.COURSES;

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

| COURSE\_ID | COURSE\_NAME |

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

| 1001 | INFORMATION TECHNOLOGY |

| 1002 | COMPUTER SCIENCE |

| 1003 | ELECTRONIC AND TELECOMMUNICATION |

| 1004 | MECHANICAL |

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

4 rows in set (0.00 sec)

mysql> SELECT \* FROM STUDENT\_DATA.STUDENT;

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

| STUDENT\_ID | STUDENT\_NAME | STUDENT\_CITY | STUDENT\_COURSES |

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

| 1122 | ROHAN KUMAR | 1 | 1001 |

| 1123 | ALLU ARJUN | 4 | 1002 |

| 2244 | NOBITA NOBI | 3 | 1004 |

| 2245 | PRATHAMESH PATIL | 1 | 1002 |

| 2246 | SIDDESH KUMBAR | 2 | 1001 |

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

5 rows in set (0.00 sec)

mysql> ALTER TABLE STUDENT

-> RENAME COLUMN STUDENT\_ID TO STUDENT\_NO;

Query OK, 0 rows affected (0.03 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> SELECT \* FROM STUDENT\_DATA.STUDENT;

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

| STUDENT\_NO | STUDENT\_NAME | STUDENT\_CITY | STUDENT\_COURSES |

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

| 1122 | ROHAN KUMAR | 1 | 1001 |

| 1123 | ALLU ARJUN | 4 | 1002 |

| 2244 | NOBITA NOBI | 3 | 1004 |

| 2245 | PRATHAMESH PATIL | 1 | 1002 |

| 2246 | SIDDESH KUMBAR | 2 | 1001 |

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

5 rows in set (0.00 sec)

mysql> ALTER TABLE STUDENT

-> ADD COLUMN EMAIL VARCHAR(20);

Query OK, 0 rows affected (0.03 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> SELECT \* FROM STUDENT\_DATA.STUDENT;

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

| STUDENT\_NO | STUDENT\_NAME | STUDENT\_CITY | STUDENT\_COURSES | EMAIL |

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

| 1122 | ROHAN KUMAR | 1 | 1001 | NULL |

| 1123 | ALLU ARJUN | 4 | 1002 | NULL |

| 2244 | NOBITA NOBI | 3 | 1004 | NULL |

| 2245 | PRATHAMESH PATIL | 1 | 1002 | NULL |

| 2246 | SIDDESH KUMBAR | 2 | 1001 | NULL |

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

5 rows in set (0.00 sec)

mysql> DESC STUDENT;

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

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

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

| STUDENT\_NO | bigint | NO | PRI | NULL | |

| STUDENT\_NAME | varchar(120) | NO | | NULL | |

| STUDENT\_CITY | int | NO | MUL | NULL | |

| STUDENT\_COURSES | int | NO | PRI | NULL | |

| EMAIL | varchar(20) | YES | | NULL | |

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

5 rows in set (0.01 sec)

mysql> ALTER TABLE STUDENT

-> DROP COLUMN EMAIL;

Query OK, 0 rows affected (0.02 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> DESC STUDENT;

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

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

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

| STUDENT\_NO | bigint | NO | PRI | NULL | |

| STUDENT\_NAME | varchar(120) | NO | | NULL | |

| STUDENT\_CITY | int | NO | MUL | NULL | |

| STUDENT\_COURSES | int | NO | PRI | NULL | |

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

4 rows in set (0.01 sec)

mysql>

mysql> SELECT \* FROM STUDENT;

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

| STUDENT\_NO | STUDENT\_NAME | STUDENT\_CITY | STUDENT\_COURSES |

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

| 1122 | ROHAN KUMAR | 1 | 1001 |

| 1123 | ALLU ARJUN | 4 | 1002 |

| 2244 | NOBITA NOBI | 3 | 1004 |

| 2245 | PRATHAMESH PATIL | 1 | 1002 |

| 2246 | SIDDESH KUMBAR | 2 | 1001 |

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

5 rows in set (0.00 sec)

mysql> # 3.MODIFY

mysql> # ALTER TABLE table\_name

mysql> # MODIFY COLUMN column\_name datatype

mysql> ALTER TABLE STUDENT

-> MODIFY STUDENT\_NO VARCHAR(20);

Query OK, 5 rows affected (0.11 sec)

Records: 5 Duplicates: 0 Warnings: 0

mysql> DESC STUDENT;

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

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

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

| STUDENT\_NO | varchar(20) | NO | PRI | NULL | |

| STUDENT\_NAME | varchar(120) | NO | | NULL | |

| STUDENT\_CITY | int | NO | MUL | NULL | |

| STUDENT\_COURSES | int | NO | PRI | NULL | |

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

4 rows in set (0.00 sec)

mysql> -- ========================== VIEWS ====================================

mysql> -- SYNTAX:

mysql> /\*CREATE VIEW VIEW\_NAME

AS

WRITE YOUR QUERY

mysql> \*/

mysql>

mysql> -- VIEW 1 TO DISPLAY INNER JOIN

mysql> CREATE VIEW INNER\_JOIN

-> AS

-> SELECT STUDENT\_NAME,STUDENT\_CITY,CITY\_NAME FROM STUDENT INNER JOIN CITY

-> ON STUDENT.STUDENT\_CITY = CITY.CITY\_ID;

Query OK, 0 rows affected (0.01 sec)

mysql>

mysql> SELECT \* FROM INNER\_JOIN;

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

| STUDENT\_NAME | STUDENT\_CITY | CITY\_NAME |

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

| ROHAN KUMAR | 1 | PUNE |

| PRATHAMESH PATIL | 1 | PUNE |

| SIDDESH KUMBAR | 2 | DELHI |

| NOBITA NOBI | 3 | MUMBAI |

| ALLU ARJUN | 4 | CHENNI |

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

5 rows in set (0.00 sec)

mysql> -- VIEW 2 TO DISPLAY RIGHT JOIN

mysql> INSERT INTO CITY (CITY\_ID,CITY\_NAME)

-> VALUES

-> (5,'LATUR'),

-> (6,'NAGPUR');

Query OK, 2 rows affected (0.01 sec)

Records: 2 Duplicates: 0 Warnings: 0

mysql>

mysql> CREATE VIEW RIGHT\_JOIN

-> AS

-> SELECT STUDENT\_NAME,STUDENT\_CITY,CITY\_NAME FROM STUDENT RIGHT JOIN CITY

-> ON STUDENT.STUDENT\_CITY = CITY.CITY\_ID;

Query OK, 0 rows affected (0.01 sec)

mysql> SELECT \* FROM RIGHT\_JOIN;

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

| STUDENT\_NAME | STUDENT\_CITY | CITY\_NAME |

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

| ROHAN KUMAR | 1 | PUNE |

| PRATHAMESH PATIL | 1 | PUNE |

| SIDDESH KUMBAR | 2 | DELHI |

| NOBITA NOBI | 3 | MUMBAI |

| ALLU ARJUN | 4 | CHENNI |

| NULL | NULL | LATUR |

| NULL | NULL | NAGPUR |

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

7 rows in set (0.00 sec)

mysql>

mysql> -- ====================== VIEW FOR DISPLAYING STUDENT NAME AND THERE CITY ====================

mysql>

mysql> DROP VIEW STUDENT\_CITY;

ERROR 1051 (42S02): Unknown table 'student\_data.student\_city'

mysql> CREATE VIEW STUDENT\_CITY

-> AS

-> SELECT S.STUDENT\_NAME,C.CITY\_NAME FROM STUDENT S ,CITY C

-> WHERE STUDENT\_CITY = CITY\_ID

-> ORDER BY (CITY\_NAME);

Query OK, 0 rows affected (0.01 sec)

mysql> SELECT \* FROM STUDENT\_CITY;

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

| STUDENT\_NAME | CITY\_NAME |

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

| ALLU ARJUN | CHENNI |

| SIDDESH KUMBAR | DELHI |

| NOBITA NOBI | MUMBAI |

| ROHAN KUMAR | PUNE |

| PRATHAMESH PATIL | PUNE |

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

5 rows in set (0.00 sec)

mysql>

mysql> -- ====================== VIEW FOR DISPLAYING STUDENT\_NAME AND COURSES ENROLLED ==============

mysql>

mysql> DROP VIEW STUDENT\_C;

ERROR 1051 (42S02): Unknown table 'student\_data.student\_c'

mysql> CREATE VIEW STUDENT\_C

-> AS

-> SELECT \* FROM STUDENT , COURSES

-> WHERE STUDENT\_COURSES = COURSE\_ID;

Query OK, 0 rows affected (0.01 sec)

mysql> -- ORDER BY (STUDENT\_NAME);

mysql>

mysql> SELECT \* FROM STUDENT\_C;

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

| STUDENT\_NO | STUDENT\_NAME | STUDENT\_CITY | STUDENT\_COURSES | COURSE\_ID | COURSE\_NAME |

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

| 1122 | ROHAN KUMAR | 1 | 1001 | 1001 | INFORMATION TECHNOLOGY |

| 2246 | SIDDESH KUMBAR | 2 | 1001 | 1001 | INFORMATION TECHNOLOGY |

| 1123 | ALLU ARJUN | 4 | 1002 | 1002 | COMPUTER SCIENCE |

| 2245 | PRATHAMESH PATIL | 1 | 1002 | 1002 | COMPUTER SCIENCE |

| 2244 | NOBITA NOBI | 3 | 1004 | 1004 | MECHANICAL |

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

5 rows in set (0.00 sec)

mysql> UPDATE STUDENT\_C

-> SET STUDENT\_NAME = 'ROHAN MASNE'

-> WHERE STUDENT\_COURSES = 1001;

Query OK, 2 rows affected (0.01 sec)

Rows matched: 2 Changed: 2 Warnings: 0

mysql>

mysql> SELECT \* FROM STUDENT;

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

| STUDENT\_NO | STUDENT\_NAME | STUDENT\_CITY | STUDENT\_COURSES |

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

| 1122 | ROHAN MASNE | 1 | 1001 |

| 1123 | ALLU ARJUN | 4 | 1002 |

| 2244 | NOBITA NOBI | 3 | 1004 |

| 2245 | PRATHAMESH PATIL | 1 | 1002 |

| 2246 | ROHAN MASNE | 2 | 1001 |

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

5 rows in set (0.00 sec)

mysql> -- ============================================================

mysql> CREATE TABLE Employees (

-> EmployeeID INT PRIMARY KEY,

-> FirstName VARCHAR(50),

-> LastName VARCHAR(50),

-> Department VARCHAR(50)

-> );

Query OK, 0 rows affected (0.06 sec)

mysql> INSERT INTO Employees (EmployeeID, FirstName, LastName, Department)

-> VALUES (1, 'John', 'Doe', 'HR'),

-> (2, 'Jane', 'Smith', 'IT'),

-> (3, 'David', 'Johnson', 'Finance');

Query OK, 3 rows affected (0.01 sec)

Records: 3 Duplicates: 0 Warnings: 0

mysql> CREATE VIEW EmployeeView AS

-> SELECT EmployeeID, FirstName, LastName, Department

-> FROM Employees;

Query OK, 0 rows affected (0.01 sec)

mysql> SELECT \* FROM EmployeeView;

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

| EmployeeID | FirstName | LastName | Department |

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

| 1 | John | Doe | HR |

| 2 | Jane | Smith | IT |

| 3 | David | Johnson | Finance |

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

3 rows in set (0.00 sec)

mysql> UPDATE EmployeeView

-> SET Department = 'Sales'

-> WHERE EmployeeID = 2;

Query OK, 1 row affected (0.01 sec)

Rows matched: 1 Changed: 1 Warnings: 0

mysql> -- ======================= + ==================================