Assignment – 18

Maintaining the Integrity of your Data.

1) Create a table called Cityorders. This will contain the same onum, amt and snum fields as the Orders table, and the same cnum and city fields as the Customers table, so that each customer's order will be entered into this table along with his or her city. Onum will be the primary key of Cityorders. All of the fields in Cityorders will be constrained to match the Customers and Orders tables. Assume the parent keys in these tables already have the proper constraints.

```
W2_89692_Aditya>CREATE TABLE Cityorders (
    ->        onum INT PRIMARY KEY,
    ->         amt FLOAT(7,2),
    ->         snum INT,
    ->        city VARCHAR(20),
    ->         CONSTRAINT fk_cnum_Cityorders FOREIGN KEY (cnum) REFERENCES customers(cnum)
    ->             ON UPDATE CASCADE ON DELETE CASCADE,
    ->         CONSTRAINT fk_onum_Cityorders FOREIGN KEY (onum) REFERENCES orders(onum)
    ->             ON UPDATE CASCADE ON DELETE CASCADE
    ->           );
Query OK, 0 rows affected (0.04 sec)

+-------+-------------+------+-----+---------+-------+
| Field | Type        | Null | Key | Default | Extra |
+-------+-------------+------+-----+---------+-------+
| onum  | int         | NO   | PRI | NULL    |       |
| amt   | float       | YES  |     | NULL    |       |
| snum  | int         | YES  |     | NULL    |       |
| cnum  | int         | YES  | MUL | NULL    |       |
| city  | varchar(20) | YES  |     | NULL    |       |
+-------+-------------+------+-----+---------+-------+
5 rows in set (0.01 sec)
```

2) Redefine the Orders table as follows:- add a new column called prev, which will identify, for each order, the onum of the previous order for that current customer. Implement this with a foreign key referring to the Orders table itself. The foreign key should refer as well to the cnum of the customer, providing a definite enforced link between the current order and the one referenced.

```
W2_89692_Aditya>CREATE TABLE Orders (
    ->     onum INT(4),
    ->     amt FLOAT(7,2),
    ->     odate DATE,
    ->     cnum INT(4),
    ->     snum INT(4),
    ->     pnum INT(4),
    ->     PRIMARY KEY (onum),
    ->     UNIQUE (onum, cnum),
    ->     FOREIGN KEY (pnum, cnum) REFERENCES Orders(onum, cnum)
    -> );
Query OK, 0 rows affected, 5 warnings (0.08 sec)
```