

National University of Computer and Emerging Sciences, Lahore Campus



Course:
Program:
Instructor:

Database Systems
BS(Computer Science)
Muhammad Ishaq Raza

Practice Problem: Relational Model (2)

Consider the following State and Schema of a Retailer Store database. It keeps track of the orders placed by the customers.

CUSTOMER		
cid	cname	city
100	Ismail	Karachi
200	Isbah	Lahore
300	Tahreem	Islamabad
600	Izaan	Lahore
700	Khadija	Karachi
800	Alia	Lahore

ORDER		
oid	odate	cid
1	2018-01-20	200
3	2018-01-20	600
5	2018-02-15	300
7	2018-02-20	800

PRODUCT			
Pid	pname	price	company
10	Nutella	250	Ferrero
20	Kinder Joy	60	Ferrero
40	Milo	30	Nestle
50	Maggi Noodle	25	Nestle
70	Donuts	50	Dunkin Brands
80	Horlicks	400	GSK

ORDER_DETAIL			
oid	pid	quantity	discountPercent
1	10	2	15
1	70	6	25
3	10	1	15
5	10	3	15
5	40	4	15
5	50	5	25
7	10	2	15

<pre>CREATE TABLE customer (cid INT NOT NULL, cname VARCHAR(30), city VARCHAR(30), PRIMARY KEY (cid));</pre>	<pre>CREATE TABLE product (pid INT NOT NULL, pname VARCHAR(30) UNIQUE, price DECIMAL(9,2), company VARCHAR(30), PRIMARY KEY (pid));</pre>
<pre>CREATE TABLE order (oid INT NOT NULL, odate DATE, cid INT, PRIMARY KEY (oid), FOREIGN KEY (cid) REFERENCES customer(cid) ON DELETE SET NULL ON UPDATE CASCADE);</pre>	<pre>CREATE TABLE order_detail (oid INT NOT NULL, pid INT NOT NULL, quantity INT, discountPercent INT, PRIMARY KEY (oid, pid), CHECK (quantity>0), FOREIGN KEY (oid) REFERENCES order(oid) ON DELETE CASCADE ON UPDATE CASCADE, FOREIGN KEY (pid) REFERENCES product(pid) ON DELETE CASCADE ON UPDATE CASCADE);</pre>

Q. Apply following operations on the above database. State if the operation would be carried out successfully or not.
Explain your answer briefly. In case of successful operation indicate the changes that will be made to the above database and in case of Reject state the error that occurred. Please note that all operations are independent.

a) INSERT INTO ORDER_DETAIL (oid, pid, quantity, discountPercent) VALUES (1, 70, NULL, NULL);

Accept ☐ **Explain:**

Reject ☐

b) UPDATE ORDER_DETAIL SET discountPercent = '20';

Accept ☐ **Explain:**

Reject ☐

c) UPDATE ORDER SET oid = 4 WHERE oid=5;

Accept ☐ **Explain:**

Reject ☐

d) DELETE FROM customer WHERE cname = 'Izaan';

Accept ☐ **Explain:**

Reject ☐

e) DELETE FROM order;

Accept ☐ **Explain:**

Reject ☐