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CS6312 – DBMS Lab
Assignment – 1

Assigned: 22-Dec-18

Title: DDL for Mail Order Database

Mail Order Database

Consider a mail order database in which employees take orders for parts from customers. The data requirements are summarized as follows:

- a) The mail order company has employees identified by a unique employee number, their name, date-of-birth, pin code and city where they are located.
- b) The customers of the company are identified by a unique customer number, their name, street name, pin code, city where they are located, date-of-birth and a phone number.
- c) The parts being sold by the company are identified by a unique part number, a part name, their price, and quantity on hand.
- d) Orders placed by customers are taken by employees and are given a unique order number. Each order may contain certain quantities of one or more parts and their received date as well as a shipped date is recorded.

Create the relations with the above mentioned specifications and also consider the following constraints:

1. Identify the primary key(s) and foreign key(s) from the schema.
2. Ensure that order number begins with O, similarly customer number with C, employee number with E and part number with P.
3. The phone numbers of the customers should not be identical to each other.
4. The quantity ordered should not be zero.
5. Order received date should always be less than the shipped date.
6. The price of the part should compulsorily contain some value.

The following changes have been identified due to increasing business. As a database designer you must accommodate these changes in your design.

7. It is identified that the following attributes are to be included in respective relations:

Parts (reorder level), Employees (hiredate)

8. The width of a customer name is not adequate for most of the customers.

9. The date-of-birth of a customer can be addressed later / removed from the schema.

10. An order can not be placed without the receive date.

11. A customer may cancel an order or ordered part(s) may not be available in a stock.

Hence on removing the details of the order, ensure that all the corresponding details are also deleted.

Note:

Populate each relation with relevant row(s) and prepare test cases to demonstrate that the requirements are satisfied.

What you have to submit:

1. Schema Diagram with constraints
2. Demo script file

