DBS201 Exercise 4

Gallery Customer History Form

Customer Name

Jackson, Elizabeth   Phone (206) 284-6783
123 – 4th Avenue
Fonthill, ON
L3J 4S4

Purchases Made

Artist	Title	Purchase Date	Sales Price
03 - Carol Channing	Laugh with Teeth	09/17/2000	7000.00
15 - Dennis Frings	South toward Emerald Sea	05/11/2000	1800.00
03 - Carol Channing	At the Movies	02/14/2002	5550.00
15 - Dennis Frings	South toward Emerald Sea	07/15/2003	2200.00

The Gill Art Gallery wishes to maintain data on their customers, artists and paintings. They may have several paintings by each artist in the gallery at one time. Paintings may be bought and sold several times. In other words, the gallery may sell a painting, then buy it back at a later date and sell it to another customer.

UNF:

    customer [custno, cust_name, cust_addr, cust_phone, (artist_id, artist_name, art_title, pur_date, price)]

1NF:

    customer [custno, cust_name, cust_addr, cust_phone]
    cust_art [custno, art_code, pur_date, artist_id, artist_name, art_title, price]

    note: the key chosen for the repeating group is the piece of art itself (a code was assigned), however because a piece of art may be bought by a customer more than once, the purchase date was added as part of the key to make the rows unique.

2NF:

    customer [custno, cust_name, cust_addr, cust_phone]
    cust_art [custno, art_code, pur_date, price]
    art [art_code, art_title, artist_id, artist_name]

3NF:

    customer [custno, cust_name, cust_street, cust_city, cust_prov, cust_pstlcd, cust_phone]
    cust_art [custno, art_code, pur_date, price]
    art [art_code, art_title, artist_id(FK)]
    artist [artist_id, artist_fname, artist_lname]