The Carmel Street Art Gallery wishes to maintain data on all of their customers, artists and paintings that they offer. It is typical that they will 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.

A typical inventory report might look like this:

**Carmel Street Art 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

At a minimum, the data we wish to track is:

* Customer Name (First and Last)
* Customer Address (Street, City, Zip code)
* Customer Phone number/Email
* Artists name
* Title of the artwork
* Value of the artwork
* Price of artwork
* Purchase Date
* Date artwork was purchased
* Purchase Price

**Part 1:**

Design a database for this solution for the gallery that is in 3rd normal form.

Please provide a listing of all of the tables and the column attributes that you use (as a hint, a 3rd normal form of this solution will probably break down into 4 tables)

For each table provide something that resembles:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Tablename: xxxxx | | | | |
| **Column name** | **Type of data (int,float,char, etc)** | **Description of column contents** | **Anything special about the column (primary, foreign key, etc)** | |
|  |  |  |  |  |

**Part 2:**

Create the SQL and define your tables. Please provide the SQL and a “describe” for each table

**Part 3:**

Load your tables with sample data – this is where you’ll have to be creative. I would like to see your databases have at least 8-10 customers, 5-6 artists and at least 15-20 pieces of art in the database.

Provide a “select \*” on all the tables so I can see the data

**Part 4 (queries)**

* **Provide a report of all of the art owned by all of customers, the report (or query) should include the owner’s name, the arist and the title of the artwork.**
* **Provide a report of artists without any works in Inventory**
* **Provide a report of which artists do not have works owned by any customers**

**Please include the SQL used for the queries**

**Part 5 (Tests)**

* Show an example of where you can NOT delete an artist from your tables

Due to constraints on the database

* Show that you can delete a particular piece of art from the database

**Please include the SQL used for the queries**