Database Design

YESTERDAY...

How do we add new information to a database?

How do we update information in a database?

How do we delete information in a database?

Should we delete information from a database?

What are transactions?

Databases: Let's build one!

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.

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NORMALIZATION

Normalization is the process of organizing a database to eliminate duplicate and null values

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DATABASE DEFINITION LANGUAGE

Create/Drop Database:

CREATE DATABASE database_name;
DROP DATABASE database_name;

Create Table

CREATE TABLE table_name (column_name1 data_type(size), column_name2
data_type(size) NOT NULL, column_name3 data_type(size), CONSTRAINT pk_column_1
PRIMARY KEY (column_name1), CONSTRAINT fk_column_2 FOREIGN KEY
(column_name2) REFERENCES table_name(column_1));

Drop Table

DROP TABLE table_name

DATABASE SUGGESTIONS

Changing database much harder than changing code
We want to represent gender, should we use a bit?

LET'S CODE!

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WHAT QUESTIONS DO YOU HAVE?