W9 Exercises: into to normalization
Exercise 1

Orders								
Order ID	Customer	Phone	Item1	Qty1	Price1	Item2	Qty2	Price2
1	Bob	211-2112	Pen	2	5.49	Eraser	1	2.00
2	John	344-3344	Pen	5	5.49			
3	Bob	211-2112	Pen	1	5.49			
4	Maria	500-5005	Eraser	3	2.00			

1. Identify anomalies
2. Identify FDs
3. Draw FD diagram
4. Decompose into 1NF, 2NF and 3NF

Exercise 2

HEALTH HISTORY REPORT

PET ID	PET NAME	PET TYPE	PET AGE	OWNER	VISIT DATE	PROCEDURE
246	ROVER	DOG	12	SAM COOK	JAN 13/2002	01 - RABIES VACCINATION
					MAR 27/2002	10 - EXAMINE and TREAT WOUND
					APR 02/2002	05 - HEART WORM TEST
298	SPOT	DOG	2	TERRY KIM	JAN 21/2002	08 - TETANUS VACCINATION
					MAR 10/2002	05 - HEART WORM TEST
341	MORRIS	CAT	4	SAM COOK	JAN 23/2001	01 - RABIES VACCINATION
					JAN 13/2002	01 - RABIES VACCINATION
519	TWEEDY	BIRD	2	TERRY KIM	APR 30/2002	20 - ANNUAL CHECK UP
					APR 30/2002	12 - EYE WASH

UNF:

 Pet (pet_id, pet_name, pet_type, pet_age, owner, (procedures: visitdate, procedure_no, procedure_name))

1NF:

2NF:

3NF:

Exercise 3

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, (purchase: artist_id, artist_name, art_title, pur_date, price))

1NF:

2NF:

3NF: