Data Normalization Homework Assignment 1 – DUE 2/13/2014

a) To keep track of office furniture, computers, printers, and so on, the FOUNDIT company uses the following table structure:

Attribute name	Sample value
ITEM_ID	2311345-678
ITEM_DESCRIPTION	HP DeskJet 660C printer
BLDG_ROOM	325
BLDG_CODE	DEL
BLDG_NAME	Dawn's Early Light
BLDG_MANAGER	E. R. Rightonit

Assumption: Each Building is managed by one employee

Assignment: If the table is not in Third Normal Form, modify the design to convert it to 3NF. Draw the data model resulting from your modification. Show the tables (and their attributes) resulting from your data model.

Homework Assignment 2

The key fields are ***INV_NUM, S_ID, CAR_NUM and CUS_ID.***

The Field ***S_ID*** refers to the Service Technician ID.

Normalize ME								
INV_NUM	**S_ID**	**SER_CODE**	**CAR_NUM**	**CUS_ID**	**Last Name**	**CAR_MAKE**	**CAR_MODEL**	**CAR_YEAR**
5001	1001	NCS	00yo5mn832	101	Adams	Mazada	Tribute	2002
5029	1005	NCS	86gf2de356	123	Palaisa	Mazada	Miata	2001
5030	1005	NCS	87mn5sw754	128	Sullivan	Lincoln	TownCar	2000
5031	1006	NCS	87vb2sn427	125	Petty	Volvo	C70 Coupe	2000
5032	1007	NCS	88za9qr821	127	Scott	Mazada	Protégé	2001
5033	1007	NCS	90as2sw987	126	Regan	Lincoln	Contiential	1997
5034	1003	NCS	90gh1gf546	129	Washington	Lincoln	LS	1999
5035		TUP	A1	103	Armstrong	BMW	326	2002
5036		INS	A2	104	Bell	BMW	327	2002
5037		TUP	18ms3sw145	107	Cliburn	Volvo	Cross Country	2002
5038		TUP	A3	109	Edision	BMW	328	2002
5043		PRE	85de4hg678	122	Nixon	Ford	Windstar	2002
5044		PRE	55ar6xv772	123	Palaisa	Ford	Windstar	2001

Assignment: If the table is not in Third Normal Form, modify the design to convert it to 3NF. Draw the data model resulting from your modification. Show the tables (and their attributes) resulting from your data model.

Optional Homework Assignment (for additional practice)

Order Processing System

An *Order Processing System* is needed for a small business selling outdoor equipment. Harry has been hired to do the job. He created an "Order" table with the following attributes:

Attribute Name	Attribute Description
* OrderNumber (PK)	Unique identifier for each order
OrderDate	Date the order was taken
NeededByDate	Date that the customer needs the outdoor equipment
ShippedDate	Date that the equipment should be shipped to the customer
CustomerID	Customer ID of the customer that passed the order
CustomerName	Customer name of the customer that passed the order

Customer Credit System

A *Customer Credit System* is being developed for a department store to track information on purchases and payments per customer. Melissa has just started to design the database that will be needed for the system, and has decide that only one table will be needed: a "Customer Account" table with the following attributes:

Attribute Name	Attribute Description
* Customer_Num(PK)	Unique number identifying a customer account
Customer_Name	Customer Name
Customer_Tel	Customer Phone number
Purchase_Number	Purchase numbers made by the customer
Purchase_Date	Dates of all the purchases made by the customer
Purchase_Amount	Amount of all the purchases made by the customer
Payment_Number	Payment ID numbers for each payment made
Payment_Date	Dates of all the payments made by the customer
Payment_Amount	Amount of all the payments made by the customer

Assumption: Although a purchase may be paid through multiple payments, a payment always refers to a specific purchase.