Introduction

This document contains the Entity/Relationship (E/R) model for the First1 data base as well as the Domains used within the model.

So you ask, "What is an E/R model?" Here is a brief description. An E/R model contains "Entities" which are things and "Relationships" which describe how the things relate to each other. The lines between the Entities represent the Relationships.

An Entity has Attributes which describe the data contained within the Entity. For example a Dealer has a "DBA_Name" attribute. You will see beside each Attribute a code indicating the data type of the Attribute. The data type of the Dealer "DBA_Name" Attribute is A60 which describes an alphanumeric data type with a max length of 60. Here is a list of the data types used in the model.

Data Types: A - Alphanumeric with length, e.g. A30 is a character string with a length of 30.
D - Date
N - Numeric with length and precision, e.g. N3,2 would support an amount with two decimal points such as $1.23
DC - Same as Numeric
I - Integer which has a max value of 214,748,364 or so. All tables have an Integer as the primary key which is a sequential system assigned number.
LVA - Long Variable Length Alphanumeric used for comments.

You will also see Domain names in the data type column for some attributes. Typically Domains are used to define the formatting of an Attribute type once and then use it many times in the model. For example the "d_phone" domain specifies a format of "(###) ### - ####" and is used on all "Phone" Attribute types Domains are also used to define valid values for code type Attributes. For example, the "d_gender_code" Domain specifies valid values for Gender as M for Male and F for Female.

Now we go on to Relationships. Relationships describe how Entities relate to each other. The funny symbols on the Relationship lines represent the "cardinality" of the Relationship. I'll give a brief overview here but we will review the cardinality in person. There are basically four types of cardinality: 1 to 1, 1 to many, many to many and many to 1.

For example, if you look at the Dealer Entity you will see four Relationships with different symbols. The Relationships are described as:

1. A Dealer Has 0 to many Comments. It reads the other way as a Dlr_Comment has 1 Dealer.
2. A Dealer Employs 1 to many Dlr_Employees and a Dlr_Employee has 1 Dealer
3. A Dealer has 1 Employee Rep and an Employee Rep has 0 to many Dealers.
4. A Dealer resides in 1 State and a State houses many Dealers.

Don't worry about the Relationships at this point. We will review them in person.

The E/R model consists of six pages. Print them and then lay them out in two rows with each row having three pages and the Relationship lines will line up. You can tape the pages together to make it easier to review.

There is one additional domain that is not in the Domain section of the PDF. The domain name is called d_lcmt_comment_code. It is used to indicate whether a Loan Comment is a Dealer comment, a Quote comment or a Not Funded comment.

This is a first cut database design that will serve as the basic design. Once we are happy with it, I can resume programming. It needs to be close but not complete at this time. We will tweak it during the life of the project as we discover additional things that are required. I am primarily focused on the Entities and Relationships that are required to produce a Quote. It is important that the Entities required for the Quote piece are 95% complete.

The review will focus on:

1. Are there any extra Entities or Attributes?
2. Are there any missing Entities or Attributes?
3. Are the Relationships correct?
4. Are the data types of the Attributes correct?
5. Are the domains defined properly?
6. Are the Entity and Attribute names understandable and spelled correctly?

Here is a list of miscellaneous questions to be addressed at the review:

1. What goes on the Dealer Finances tab. I don't have a screen shot.
2. Do we want to use the "d_st_code" domain in conjunction with all Street Attributes?
3. On which Entities do we want an indicator that the info has been verified? Is the confirmation a yes/no or do we want to save the employee's name as well? There are a few confirmation indicators now. Do we need more?
4. What are the "Customer Previous Repossession" and Consumer Info Indicator (CD Reporting) items on the Customer Admin screens used for?
5. Is the "Insured Name" the same as the "Customer Name"?
6. How are co-borrowers handled?
7. Which entities need a "created by" attribute as well as an "updated by" attribute?
8. Is "Insurance Agency" a separate reusable entity?
9. The Loan entity serves as the Quote entity with a status of Quote. Will this work?
10. The d_clcmt_action_code values need to be defined. This is the action code for a Collection Comment.
11. There are a number of screen shots that appear to be from an old system. We need to review these to see if they should be included.