DATABASE DESIGN PROJECT

DELUXE DEPARTMENT STORE

INTERVIEWS

BUYER

I am a buyer for the deluxe department store. I need to interact with each supplier. I can refer to each supplier by their name even though several suppliers have the same name. Therefore, its a good thing that each supplier has a unique supplier number that can go from 1 to 1000. Of course, I need to know their address and phone numbers. Since many suppliers supply similar items, I need to know the price of each item by supplier. For instance a red pen from supplier 1 might cost 2 dollars and 3 dollars from supplier 2. Whereas a blue pen could cost 2.50 and 3.50 from supplier 1 and 2 respectively. Each item must have a unique item number in addition to its name since a supplier could have several red pens for sale. The item number is unique across suppliers. No two suppliers will supply an item with the same item number. Even if they supply the exact item and the item is identical even to price, it will still have two different unique item numbers. We choose as item numbers anything from 00000 to 99999. For each item, we need to know the color, the price and a description.

Furthermore, we have to keep records of all current orders. Each order has a unique order number that can be anything from 000000 to 999999. That way an order from one supplier cannot get mixed up with an order from another supplier. An order is entirely made up of items from one supplier. For each order, we want to know the supplier number, the date the order was placed, the place the order was shipped from, the date the order was shipped and the place the order will be shipped to. The Deluxe department store has many warehouses and we need to know which warehouse the order will be shipped to.

I have to prepare a weekly report for my boss. He wants to see a separate report for each supplier detailing the items currently supplied the quantity and color of each item, the price and description of each item. An item is 'currently' supplied if there is an outstanding order. An order is outstanding when it has been placed but hasn't arrived yet. All my other tasks are done on-line.

Another one of my tasks is to place orders. When I order items from a supplier I must record all pertinent data in the computer. I place about 2000 orders a day. All told, our store sells 10,000 items. An order can be for one item or for thousands.

I am also responsible for adding new suppliers to our 'approved' supplier list. This occurs about three times a month. For each new supplier, I must know which items that supplier sells. Also, if a supplier goes out of business or is unreliable I must remove them from our list. Any outstanding orders must be cancelled. If they are still delivered they will be returned. The items from that

supplier still in inventory will be sold off in time. Of course, we must still know the item particulars of those items until they are sold off. This is not so common. About two suppliers are deleted a month.

Frequently, the auditors use their CRTs to get information. For instance, for a given order what items are supplied. This query could be asked 30 times a day. A more frequently asked query would be given an item (item number) which orders currently have this item. This query is asked about 400 times a day. Sometimes we hear a supplier has some difficulty because of transportation problems. At that point, we want to know all the orders that have been placed with that supplier but have not yet arrived in our warehouses. This occurs about 10 times a year.

Well, now you know as much as I do about my job. Good Luck, kid!

INVENTORY

I am the director of inventory for the DELUXE department store. The merchandise that is ordered first arrives in one of our warehouses. That is, an order goes entirely to one warehouse and is not split up among several warehouses.

Each warehouse has a unique warehouse number. We need to know the address phone number and the manager's name and managers ID number of each warehouse. From the warehouse, the merchandise goes to specified departments within the DELUXE department store. For example, the stationery department asks for pens with pen number 10457. The gift department could also ask for pens with pen number 10457. There is no relationship between an order from a supplier to a warehouse and what a department requests from the warehouse.

At any point in time, I want to know the quantity of each item that DELUXE has. That is, a total figure and the subtotals. A subtotal is the quantity of each item in each department that has the item and in each warehouse that currently stores the item as explained below.

My boss might log onto his CRT and input item with item number 14562 and expect to see the quantity of that item in each warehouse and in each department that sells item #14562. This type of query can be executed 500 times a day. I also have to prepare a weekly report detailing for each warehouse the items and their quantities stored there. Also, each department receives a weekly report indicating which items they have in stock and their quantities.

DEPARTMENT MANAGER

I am the manager of the stationery department. My concerns are typical of the other department managers. I need to know the merchandise in my department. I need to know the item number, item name, item description, item color and item sales price. I also need to know the quantity of each item in my department and the quantity in the warehouses. My boss wants me to keep records of the quantity of each item sold each day. Also, I should keep tabs of the quantity of each item and the date that it arrives in the store in my department. By keeping such records, my boss can determine how long items stay on the shelf.

Frequently, I use my CRT to enter queries. For instance, I enter item number and get back all the attributes of that item. Or I enter item name and get back item number. Or I enter item number and get back quantity in my department. I can also find out the quantity in the warehouses. These different queries are asked 50 to 200 times a day by each department manager. At DELUXE there are 125 department managers.

Every week I get a report describing which items I have in my department and the quantity of each. I still have to provide a report weekly that indicates the number of each item sold each day of the week. Another report issued monthly details the rate at which merchandise stays on the shelves. Since I know the date items arrived and when they were sold, I can determine how long they sat on the shelves.