**Objective**

Design an information system that supports the sale of equipment from a catalog.

**Situation**

The catalog contains the products that are for sale. Each product has a unique 10-character identifier, name, retail price, and textual description. The sales manager enters products into the catalog and maintains a list of wholesale vendors from whom the products are purchased for resale. Each vendor has a name, address, city, state, zip code, and country together with the list of products provided by that vendor. The system assigns a unique identifier to each vendor.

Client companies purchase products from the catalog through a salesperson. These customers have unique numeric identifier assigned by the system, a company name, address, city, state, zip code, country, contact person name, and e-mail address. A salesperson enters this information when making a sale to a customer for the first time. Then, and subsequently, the customer identifier is used to designate the customer.

A salesperson enters sales orders. An order has a unique numeric identifier assigned by the system, a date, the customer identifier, and a numbered list of products being purchased. Each numbered item being purchased consists of a product identifier from the catalog, the quantity purchased and the per item price paid (which may be negotiated and so different than the retail price shown in the catalog).

Finally, each salesperson can enter notes on the products in the catalog. Each note has a unique identifier assigned by the system, the date of the note, the product it annotates, and a paragraph of text. There are many queries that can be applied to this database.