

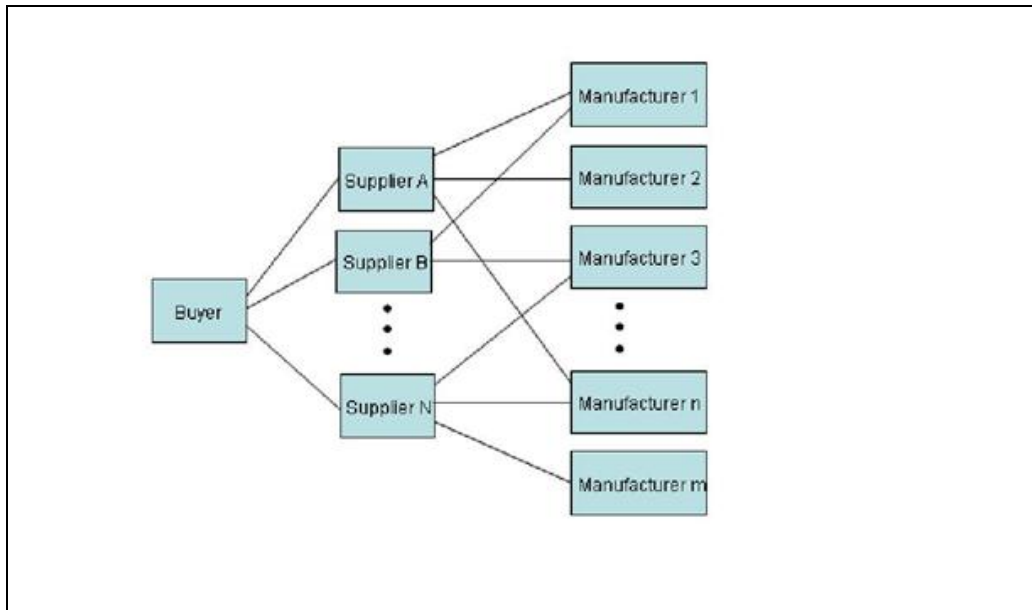
[MIS Term Project]

There is a company that wishes to purchase a fleet of cars from automobile suppliers which in turn request quotes for specific bill or material items from their component manufacturers.

The basic steps of the interaction are listed below:

1. A buyer who equals to a 'company' requests a quote from a fixed set of suppliers.
2. All suppliers receive the request for quote and send requests for bill of material items to their relevant manufacturers.
3. The suppliers interact with their manufacturers to build their quotes for the buyer. The eventual quote is then sent back to the buyer.
4. There are two different resolutions for buyer.
 - a. The buyer agrees with the quotes and places the order or orders.
 - b. The buyer responds to one or more of the quotes by modifying the quotes and sending them back to the relevant suppliers.
 - c. The buyer rejects the quotes and does not order.
5. If the buyer selects letter 'b', the suppliers can select below resolutions.
 - a. The suppliers respond to a modified quote by agreeing to it and sending a confirmation message back to the buyer.
 - b. The supplier responds by modifying the quote and sending it back to the buyer and the buyer goes back to step 4.
 - c. The supplier responds to the buyer rejecting the modified quote and the buyer goes back to step 4.
 - d. The quotes from the manufacturers need to be renegotiated by the supplier. Go to step 3.
6. If the buyer places the order, the suppliers examine their own inventory and then select below resolutions.
 - a. If suppliers have the same products which are requested by buyer, suppliers respond the orders which were placed by buyer.
 - b. If suppliers don't have the same products which are requested by buyer, suppliers place the order to manufacturers.

This scenario is illustrated in the figure below.



Requirement

1. All participants and activities which compose above process must be elements of a logical structure.
2. The number of manufacturers and suppliers is more than two.
3. The number of car models which are manufactured by each manufacturer is more than three.
4. The quote and the order sheet which are used in process must be similar to real quote and order sheet.