

A. Explain the attributes needed for a system analyst.

A system analyst is a person who researches the problem, plans solutions, recommends the kind of system to be used and co-ordinates the development of a system. A system analyst acts as a liaison between users and developers. A system analyst, however, does not get involved in actual hardware and software development.

A system analyst's job usually revolves around the given topics:

- 1) Identify and understand the system that is required for an organization and how the requirements are to be integrated with the structure of the organization.
- 2) Communicate with users and understand how the system is to be built to ensure the best flow of information within the organization.
- 3) Design a system.
- 4) Write the technical requirements so that developers understand what needs to be built.
- 5) Communicate with developers and understand the software limitations and help programmers during the development process.
- 6) Perform system testing and deployment.
- 7) Provide the instruction manual for the system.

In order for the system analyst to successfully complete these tasks, the analyst must have the following attributes:

- 1) A system analyst must be a critical thinker. He should be able to use logic, reasoning and mathematics to identify the strength and limitations of a system that is to be designed. If the system has a limitation, it is the job of the analyst to find out other solutions to the problem.
- 2) A system analyst must be an active listener as this job requires the analyst to understand what is required. Hence, a thorough understanding of the problem requires that the analyst pay attention to what the users have to say regarding the problem and how the system to be designed is to work for them.
- 3) A system analyst must also be able to communicate effectively as he is responsible for information exchange between users and developers. Hence, a system analyst should be a good speaker.
- 4) A system analyst must also be a problem solver. He should be able to identify the problems that may arise during development of the system and discover a solution to these problems.
- 5) A system analyst must also be able to determine how the system will function in different environments. The analyst should be able to identify the limitations of the system before it is implemented and be able to correct these bugs in the system through critical analysis of the problem. Furthermore, the analyst must be aware of the costs of the system and its performance.
- 6) The system analyst should also be a good writer as he is required to write reports and the instruction manual for the user. This task will involve writing down relevant information about how the system is designed and how it can be used. Hence, a system analyst should be able to clearly convey this information in writing.

B. Choose an organization that you interact with regularly and list as many different system as you can that are used to process transaction, provide information to managers and help managers to make a decision. Draw a diagram that shows how this system interacts or should interact with each other. Are these systems well integrated?

BhatBhateni Supermarket is a chain of supermarkets that are located in convenient locations throughout Kathmandu valley. There is a lot of activity everyday in these markets and there is a need for proper cost management. To ensure the smooth running of the store there are various systems that have been put into place that helps managers understand the market and help them make decisions. If these types of system have not been put into place, it may result in harming the reputation of the organization. This organization may have the following system put into place:

- 1) A transaction processing system is placed at every counter where consumers pay for the goods they bought at different sections in the market. This system helps in a fast transaction as goods are recognized by a bar code and it helps lower level managers monitor the sales and other activity for the day. This system will also be linked to the inventory of the store and this system will notify the managers if they run out of a good. This will help lower level managers make decisions on whether to get the good from their inventory. If the good is not in the inventory, managers can notify higher level managers. This helps managers make day-to-day decisions regarding the market they are in charge of. This helps lower level managers make day-to-day reports regarding the transaction taking place in their store.
- 2) A Management Information System (MIS) is also present in the organization to help middle level managers make decisions that affect the organization for a longer term. This type of system links to the inventory of the warehouse and every market in their chain so that when goods run out, managers can take a look at how various kinds of goods competed best in their market and make decisions regarding what kinds of goods are to be bought from the supplier so as to ensure that the organization generates a profit. For example: all the transaction processing system at various locations are connected to a server which helps keep a database of the inventory of various goods and statistical data regarding how various goods performed in the market. It also connects to the database in the warehouse so that if there is a shortage of goods in the warehouse and markets, these managers can take decisions regarding what is to be bought by analyzing the data regarding how various goods competed in the market. This also helps middle level managers make periodic reports, and forecasts.
- 3) A Decision Support System (DSS) is also put into place that helps to level manager make long-term decisions. The MIS collects data which helps middle level managers make their decision regarding what is to be done for a period of time. A DSS, however, analyzes data according to various queries and helps top level managers make decisions regarding how the chain should be run. DSS result from adding external data sources, accounting and statistical models and interactive query capabilities. For example: there are a lot of transactions going on in a store and the service that is being provided by the store in the area is not enough. So, the DSS may provide information to top level managers about the number of people visiting their chain and where these people are coming from; using this information top level managers can decide whether they would like to open a new chain at another place. The DSS also helps them set long term goals and an effective way to get to the goal.

Computers placed at the counter to process each transaction



Process daily transaction and provide information to managers about goods in their inventory through a database



Provide statistical information regarding how different goods competed in the market and help middle level managers make decisions on how to fill the chain's inventory



Help top level managers decide what necessary steps are to be taken to ensure that their organization grows

