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1. Why do system analyst need to know who the stakeholders are in the organizations?

= The systems analysts need to know who the stakeholders are in the organization because the system analyst servers as a facilitator or a couch, bridging the communications gap that an naturally develop between the nontechnical system owners and users and technical system designers and buildings. As we can see the system analyst plays a key role in bringing all these users to understand, therefore the system analyst need to know each and every one of the stakeholders to characterize how he or she will approach each stakeholder.

1. Define system development methodology.

= A system development methodology refers to the framework that is used to structure, plan, and control the process of developing an information system.

1. what kind of knowledge and skills should a system analyst posses.

=The knowledge and skills that a system analyst should posses are given below:

a. Working knowledge of information technology – the analyst most be aware of existing and emerging technologies  
b. Computer programming experience and expertise - most system analyst most be proficient in one or more high level programming languages.  
c. General problem solving skills - the analyst most be able to take large business problem, break down the problem into its parts, determine problem cause and effects, and then recommend a solution.  
d. Good inter personal communication skills – an analyst must be able to communicate effectively, both orally and in writing.  
e. Good interpersonal relation skills – as noted before the system analyst interacts with all stakeholder in a system development project these interactions requires effective relation skills.

1. what are the difference between internal user and external user? Give example

**=**The difference between Internal User and External User is given below:

|  |  |
| --- | --- |
| Internal User | External User |
| * Internal users refer to the members of a company's management and other individuals who use financial information in running and managing the business. | * External users are entities or individuals who do not participate in running or managing the business but are interested in the financial information of the compan |
| * Internal users are people within a business organization who use financial information | * External users are people outside the business entity (organization) who use accounting information. |
| * Examples of internal users are owners, managers, and employees. | * Examples of externalusers are suppliers, banks, customers, investors, potential investors, and tax authorities |

1. Explain THREE(3) elements involve in designing a system.

=The Elements involve in designing a system are:

### **Outputs and Inputs**

* The main aim of a system is to produce an output which is useful for its user.
* Inputs are the information that enters into the system for processing.
* Output is the outcome of processing.

### **Processor(s)**

* The processor is the element of a system that involves the actual transformation of input into output.
* It is the operational component of a system. Processors may modify the input either totally or partially, depending on the output specification.
* As the output specifications change, so does the processing. In some cases, input is also modified to enable the processor for handling the transformation.

### **Control**

* The control element guides the system.
* It is the decision–making subsystem that controls the pattern of activities governing input, processing, and output.
* The behavior of a computer System is controlled by the Operating System and software. In order to keep system in balance, what and how much input is needed is determined by Output Specifications.

1. **Differentiate between data and information**

=The differentiate between data and information is given below:

|  |  |  |
| --- | --- | --- |
|  | **Data** | **Information** |
| Definition | Data is raw, unorganized facts that need to be processed. Data can be something simple and seemingly random and useless until it is organized | When data is processed, organized, structured or presented in a given context so as to make it useful, it is called information. |
| **Represented in** | It can be structured, tabular data, graph, data tree, etc. | Language, ideas, and thoughts based on the given data. |
| Meaning | Data does not have any specific purpose. | It carries meaning that has been assigned by interpreting data. |

1. Define an Information System.

=Information systems are interrelated components working together to collect, process, store, and disseminate information to support decision making, coordination, control, analysis, and visualization in an organization.

1. There are several different types of information system. List and briefly explain all types of information system with an example**.**

=The list of all types of information system with an example is given below:

* Transaction Processing System

Transaction Processing System are operational-level systems at the bottom of the pyramid. They are usually operated directly by shop floor workers or front line staff, which provide the key data required to support the management of operations. This data is usually obtained through the automated or semi-automated tracking of low-level activities and basic transactions.

Some examples of TPS

* Payroll systems
* Order processing systems
* Management Information System

For historical reasons, many of the different types of Information Systems found in commercial organizations are referred to as "Management Information Systems". However, within our pyramid model, Management Information Systems are management-level systems that are used by middle managers to help ensure the smooth running of the organization in the short to medium term. The highly structured information provided by these systems allows managers to evaluate an organization's performance by comparing current with previous outputs.

Some examples of MIS

* Sales management systems
* Inventory control systems
* Decision Support System

A Decision Support System can be seen as a knowledge based system, used by senior managers, which facilitates the creation of knowledge and allow its integration into the organization. These systems are often used to analyze existing structured information and allow managers to project the potential effects of their decisions into the future. Such systems are usually interactive and are used to solve ill structured problems. They offer access to databases, analytical tools, allow "what if" simulations, and may support the exchange of information within the organization.

Some examples of DSS

* Group Decision Support Systems (GDSS)
* Computer Supported Co-operative work (CSCW)
* Spreadsheet Models

Executive Information Systems are strategic-level information systems that are found at the top of the Pyramid. They help executives and senior managers analyze the environment in which the organization operates, to identify long-term trends, and to plan appropriate courses of action. The information in such systems is often weakly structured and comes from both internal and external sources. Executive Information System are designed to be operated directly by executives without the need for intermediaries and easily tailored to the preferences of the individual using them.

Some examples of EIS

Executive Information Systems tend to be highly individualized and are often custom made for a particular client group; however, a number of off-the-shelf EIS packages do exist and many enterprise level systems offer a customizable EIS module.

1. Assume you are a system analyst who will be conducting a requirements analysis for an individually owned brick-and-mortar retails store with a point-of-sale(POS) system. Identify the typical internal and external user might include.

=If I was a system Analyst who will be conducting a requirements analysis for an individually owned brick-and-mortar retails store with a POS system, the typical internal user may be managers, andemployeeswhereas external users may be creditors, investors, government.

1. Assume you are a system analyst for a consulting company and have been asked to assist the chief executive officer(CEO) of a regional bank. the bank recently implemented a plan to reduce the number of staff, including loan officers, as a strategy to maintain profitability, subsequently, the bank experienced chronic problems with backlogged loan officers who are able to review and approve or disapprove loans. The CEO of the bank is interested in solutions that would allow the approval process to move faster without increasing the number of loan officer and has engaged your company to come up with suggestions. What is one type of system that you might recommended to the bank?

=I will recommend Decision Support Systemto the Bankbecause itsupports business or organizational decision-making activities. Decision support systems increase interaction between the manager and computer systems, and thus there won’t be a need for the manger to deal with decision support systems directly. Decision support systems’ characteristics are represented through: supporting the decision-making process, but not replacing it. It is organized by the middle and senior managements in the organization. It provides private data in all the aspects and areas that are related to the decision-making process.

So, **Decision Support System** is the best system to reduce the number of staff, including loan officers, as a strategy to maintain profitability, subsequently, the bank experienced chronic problems with backlogged loan officers who are able to review and approve or disapprove loans.