

# SYSTEM ANALYSIS AND DESIGN

1. NATURE AND USES OF INFORMATION
2. FORMAL AND INFORMAL INFORMATION
3. GATHERING AND PRESENTING INFORMATION
4. SYSTEM DEVELOPMENT LIFE CYCLE
5. DOCUMENTATION
6. TESTING
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8. IMPLEMENTATION

## SYSTEM

System is derived from the Greek word “*Systema*” which means an organized relationship among the functioning unit or components.

OR

A system is simply a set of component that interact to accomplish (full-fill) some purpose.

## **1. NATURE AND USES OF INFORMATION**

Every system has some pre-define goal for achieving the goal . System required certain input which are converted into the required output.

The main objective of the system is to produce some useful output is the outcome of the processing ,output can be of any nature .That is ; Goods ,Services ,Information . However, the output must confirm the customer expectation .

Inputs are the elements of the system which enter in the system and produce output. Input can be of various kind like Material ,information, etc

## **2 . FORMAL AND INFORMAL INFORMATION**

There are two type of information system :

**A). Formal information system :-** It is based on the organization represented by the organization chart. It is concerned with the pattern of authority communication and work flow.

**B).Informal information system:-**It is an employee based system designed to meet personnel and vocational needs . It helps in the solution of work Related problems .

## **3.GATHERING AND PRESENTING INFORMATION**

It can be defined as a computer based system that captures , classify , stores ,maintain , updates and retrieves transaction data for record keeping and for input to other types of computer based information system .

#### **4.SYSTEM DEVELOPMENT LIFE CYCLE**

System Development is a process consisting of two major steps of system analysis and design . The system development life cycle is classified as the set of activities that analysts , designers and users carry out to develop and implement an information system.

The system development life cycle consist of following activities:-

- a). Preliminary investigation
- b). Determination of system requirements.
- c). Design of system
- d). Development of software
- e).System testing
- f). Implementation , Evaluation and Maintanance.

#### **5.DOCUMENTATION**

At various stages of system development ,status report should be prepared for those management personnel for whom the system is being designed. Such report could include flowcharts, decision tables , output forms and other documents thus for developed.

A system cannot be completely effective unless it is properly documented.

A good document has following characteristics :-

- a). Availability.
- b). Objective.
- c).Cross-referable.

d). Easy to maintain

e). Completeness.

## **6.TESTING**

Testing is an important function to the success of the system. A successful test is one that finds an error .The analyst must perform both type of testing .

A). Unit Testing

B). System Testing

## **7.DEBUGGING**

Debugging is a method or process of finding and reducing the number of bugs ,or defects in a computer program or a piece of electronic hardware, thus making it as expected.

## **8.IMPLEMENTATION**

Implementation include all activities that takes place to convert from the old system to new one . The new system may be completely new, replacing current working / existing manual or automated system or it may be major modification to an existing system.

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