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SYSTEM DEVELOPMENT CYCLE

Definition

SDC is a process of stages which occur during the development of a new ICT system.

Reasons for building a new ICT Systems

1. The current one is out of date and no longer doing its job effectively
2. Technology might have moved on and new things are possible
3. A competitor has developed a new system
4. The organization has grown and the current system cannot cope with the increased demands placed on it.

Problems with new IT Systems

1. Systems fail to meet performance goal
2. Systems are late and over budget.
3. Systems fail and abandoned.

A method or model has been developed and refined over the years to solve the problems of building a new IT system. It is called SDC or SDLC.

If any organization follows the stages of SDLC, they should be able to avoid many of the problems mentioned above.

Stages of SDLC

The SDC consists of the following stages

1. Preliminary study
2. Feasibility study
3. Investigative study
4. System Analysis
5. System Design
6. Implementation.
7. Maintenance
8. Study Review

Preliminary Study

1. The very part of the SLC is to define the problems
2. The system analyst determines why a new system is required

Feasibility Study

1. System analyst determines whether the new IT project is feasible.
2. H/She looks into the following areas : cost, budget, time, skills, software, hardware, training
3. H/She will come up with a number of alternative solutions to present to management.

Investigative Study

1. System analyst carries out very detailed investigations in order to fully understand the current system and the proposed new system.
2. System analyst makes use of interviews, observation, questionnaire and business documents to gather information.

System Analysis

The information gathered are translated into a set of specific diagrams which represent how the system will work and the processes required. The main diagrams are:

1. **System diagram** It shows the relationship between the various system in the company and how they interact.
2. **Data Flow diagram** It shows the flow of data and information between various system.
3. **Process diagram** It shows how people interact with the system Who and when.

Assignment

1. List four methods of implementation stage of SDLC
2. List two advantages of each of the methods listed in Q1