MAINTENANCE AND REVIEW

INTRODUCTION

The final stage of system design is the maintenance and review stage which will keep your system functioning at optimal levels at all time. The system has to be maintained throughout its life to maintain its operational capabilities. This includes scheduled and preventative maintenance this will help to minimize down time. Creating a plan that includes service parts, system analysis, and proper function will keep your system performing as it should.

System development is the process of designing, implementing, maintaining and reviewing in order to help your organization achieve its goals. System development is one of the most important factors in day to day operation of your business. A well planned out system that is implemented and maintained can be attributed to the overall success of your company.

System Maintenance

Maintenance means restoring something to its original conditions. System maintenance conforms the system to its original requirements.

System maintenance involves checking, changing, and enhancing the system to make it more useful in achieving user and organizational goals.

Thus, maintenance changes the existing system. It is an important part of system development that includes the activities which corrects errors in system design and implementation, updates the documents, and tests the data.

Reasons for Maintenance

1. changes in business processes
2. New requests from stakeholders, users, and managers
3. Bugs or errors in the programe
4. Corporate mergers and acquisitions
5. Government regulations

6. Technical and hardware problems

7. Change in operating system or hardware on which the application runs.

Maintenance Types

System maintenance can be classified into three types:

i) **Corrective Maintenance**: This type of maintenance implies removing errors in a program, which might have crept in the system due to faulty design or wrong assumptions. Thus, in corrective maintenance, processing or performance failures are repaired.

ii) **Adaptive Maintenance**: In adaptive maintenance, program functions are changed to enable the information system to satisfy the information needs of the user. This type of maintenance may become necessary because of organizational changes which may include:

a) Change in the organizational procedures,

b) Change in organizational objectives, goals, policies, etc.

c) Change in forms,

d) Change in information needs of managers.

e) Change in system controls and security needs, etc.

iii) **Perfective Maintenance**: Perfective maintenance means adding new programs or modifying the existing programs to enhance the performance of the information system. This type of maintenance undertaken to respond to user's additional needs which may be due to the changes within or outside of the organization. Outside changes are primarily environmental changes, which may in the absence of system maintenance; render the information system ineffective and inefficient. These environmental changes include:

a) Changes in governmental policies, laws, etc.,

b) Economic and competitive conditions, and

c) New technology.

System review

System review is the final step of system development; the process of analyzing systems to make sure they are operating as intended.

System review involves monitoring the system – the number of errors encountered, the amount of memory required, the amount of processing or CPU time needed, and other problems.

Factors to Consider During System Review

• Mission • Organizational goals • Hardware and software • Database • Telecommunications • Information systems personnel • Control	• Training Costs • Complexity • Reliability • Efficiency • Response time • Documentation