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① Software Project Management :

Software Project Management :- is the art and science of planning and leading Software Projects. It is a sub discipline of Project management in which s/w Project are planned monitored and controlled.

Three Activities of Software :

Essentially there are three approaches to identifying the activities or tasks that make up a Project.

i) Activity - Based Approach

ii) Product - Based Approach

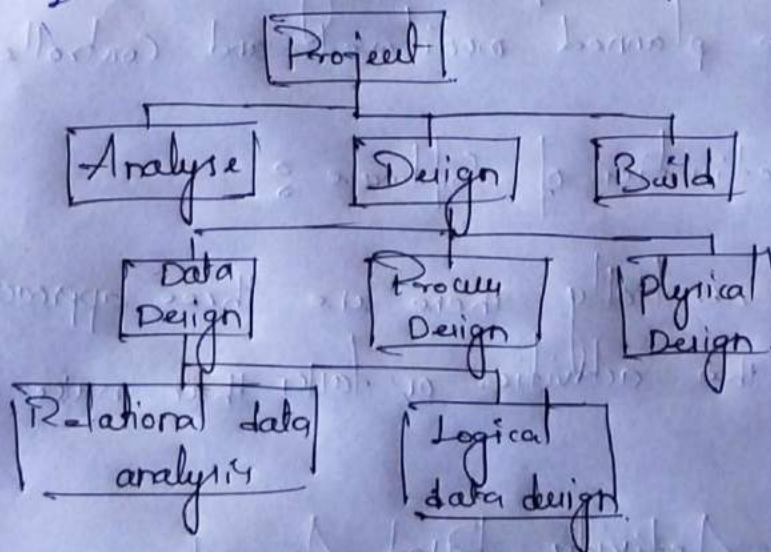
iii) Hybrid Approach.

1) The Activity Based Approach :-

→ The activity based approach consists of creating a list of all the activities that the project is thought to involve.

→ When listing activities, particularly for a large Project, it might be helpful to subdivide the project into the main life style stages and consider each of these separately.

→ Generating a task is to create a Work Breakdown Structure (WBS). This involves identifying the main tasks required to complete a project.



∴ An Activity-based Work Breakdown Structure.

2) The Product Based Approach :-

It consists of producing a Product Breakdown Structure and a product Flow Diagram (PFD).

The PFD indicates, for each product, which other products are required as input.

The PFD can easily be transformed into an ordered list of activities by identifying the transformations that turn products into others.

This approach is particularly appropriate if using a methodology such as Structured System Analysis and Design Method (SSADM), which specifies, for step or task, each of the products required and the activities req.

3) The Hybrid Approach :-

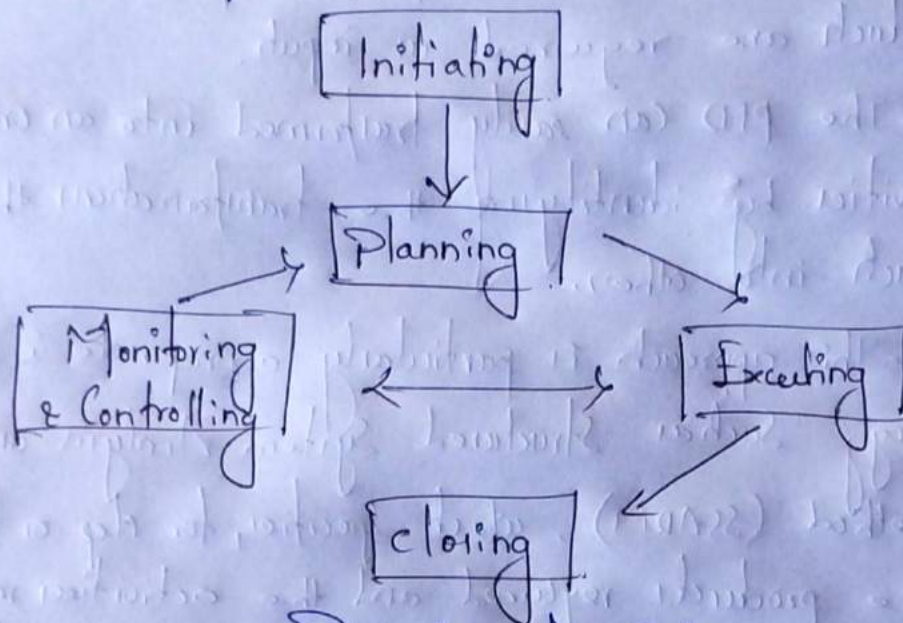
The LBS is based entirely on a structuring of activities. The degree to which the structuring is Product based or activity based might be influenced by the nature of the project and particular development method adopted.

IBM recommend that the following five levels.

- | | |
|--------------------------------------|---|
| i) Level 1: Project | iv) Level 4: Work-package |
| ii) Level 2: Deliverable as s/w | v) Level 5: Task which are normally resp. of a single person. |
| iii) Level 3: Modules and tests req. | |

② Project Life Cycle :

The Project Life Cycle refers to a logical sequence of activities to accomplish the project's goals or objectives.



∴ Project Life Cycle.

i) Project Initiation : The initiation stage determine the nature and scope of the development. Analysing the business needs/requirements in measurable goals. Equipment and Contracting requirements including an assessment of long time items.

ii) Planning & Design : The system is designed, Occasionally, a small prototype of the product is built and tested. Testing is generally performed by a

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Combination of test and use, and can occur after the prototype is built or concurrently.

ii) Execution & Controlling: Monitoring and Controlling consist of those process performed to observe project execution so that potential problems can be identified in a timely manner and corrective action can be taken.

iii) Closure: closing includes the formal acceptance of the project and ending the project. Admin activities include the archiving to the files & documenting lessons learned.

③ Cost Benefit Analysis:

It is one of the important and common way of carrying "economic assessment" of a proposed information system. This is done by comparing the expected costs of development and operation of the system with its benefits.

The standard way of evaluating economic benefit of any project is done by cost benefit analysis.

Cost benefit analysis comprises of two steps:

Step 1: identifying and estimating all of the costs and benefits of carrying out the project.

Step 2: Expressing these costs and benefits in common units.

Three types of Cost:

i) Development Cost:-

Includes salary and other employment cost of staff involved.

ii) Setup Cost:-

Includes the cost of implementation of system such as hardware, and also file conversion, recruitment & staff training.

iii) Operational Cost:-

Cost require to operate system, after it is installed.

⑤ Categories of Risk:

1) Schedule Risk:

Project schedule get slip when project task and schedule release risks are not addressed properly.

- > Wrong time estimation.
- > Resources are not tracked properly.
- > Failure to identify complex functionalities & time required to develop.
- > Unexpected project scope expansion.

2) Budget Risk:

- > Wrong budget estimation.
- > Cost Overrun.
- > Project scope expansion.

3) Operational Risk:

> Risk of loss due to improper process implementation, failed system or some external

event risk.

- × Failure of address priority conflict
- × Failure to resolve the responsibility.
- × Insufficient resource
- × No proper subject training
- × No Communication in team.

4) Technical risk:

- × Technical risk generally lead to failure of functionality and performance.
- × Continuous changing requirements.
- × No advanced technology available or the existing technology is in initial stage.
- × Difficult project module integration.