SOFTWARE PROJECT MANAGEMENT

Project Planning

Overview of Project Planning - Stepwise Project Planning
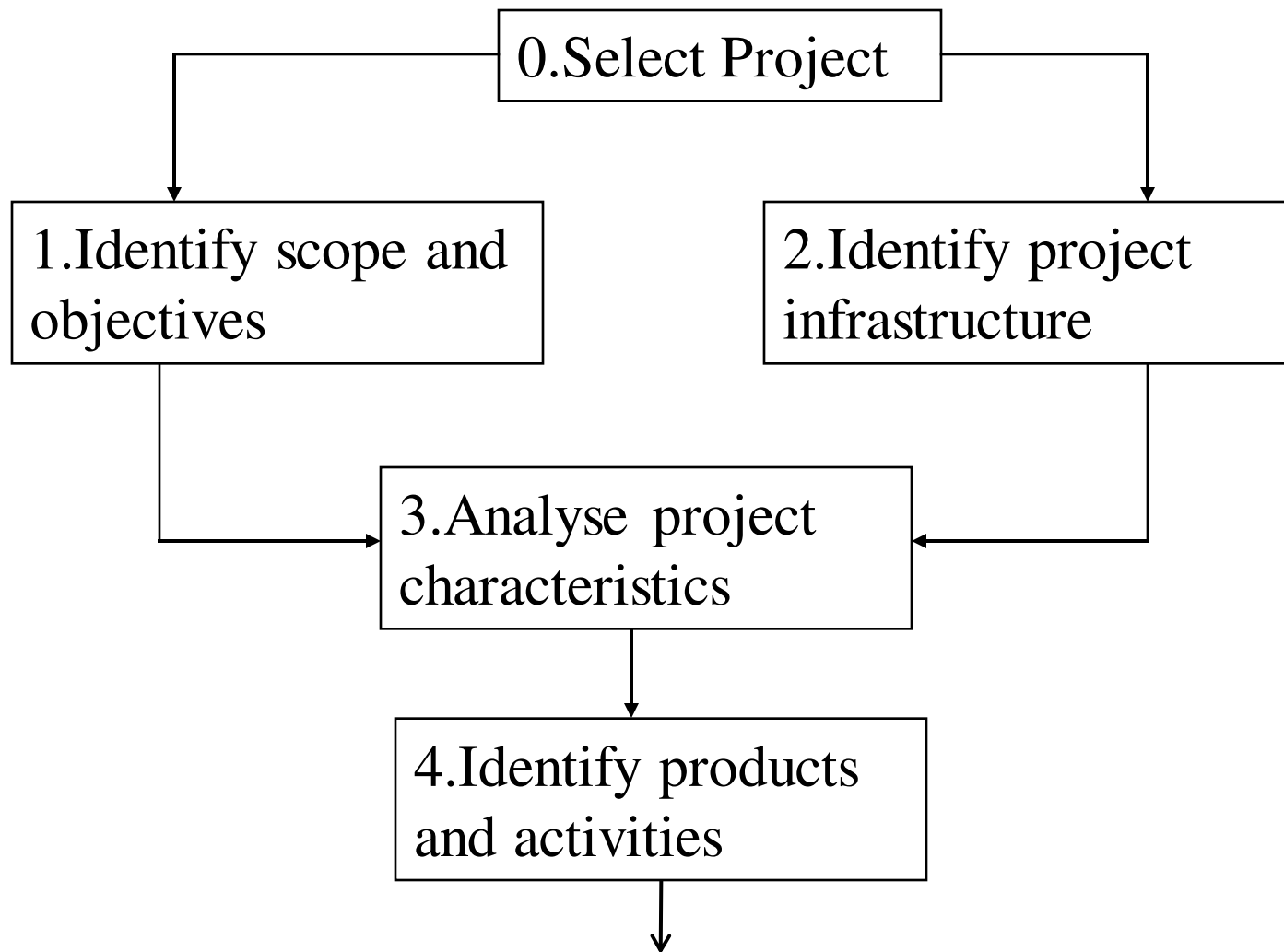
➢ The plan is nothing – the planning is everything.
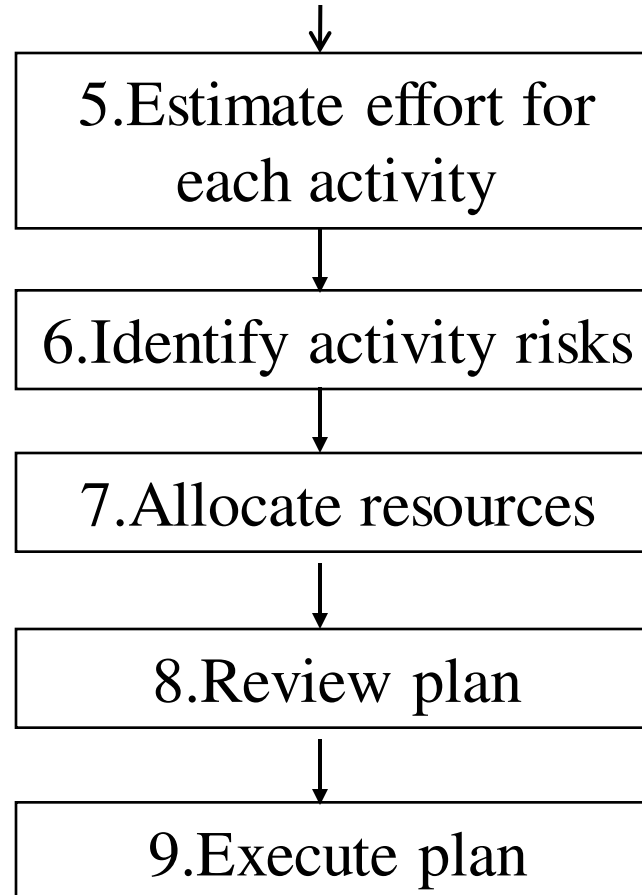
Step 0:Select Project

Step 1:Identify project scope and objectives

  ➢ Identify objectives and measures of effectiveness in meeting them.

  ➢ Establish a project authority

STEP WISE PROJECT PLANNING

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          ┌─────────│  0.Select Project   │─────────┐
          │         └─────────────────────┘         │
          ▼                                          ▼
┌─────────────────────┐              ┌─────────────────────┐
│ 1.Identify scope and│              │ 2.Identify project  │
│ objectives          │              │ infrastructure      │
└─────────────────────┘              └─────────────────────┘
          │                                          │
          │         ┌─────────────────────┐          │
          └────────▶│ 3.Analyse  project  │◀─────────┘
                    │ characteristics     │
                    └─────────────────────┘
                               │
                               ▼
                    ┌─────────────────────┐
                    │ 4.Identify products │
                    │ and activities      │
                    └─────────────────────┘
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┌─────────────────────┐
│  5.Estimate effort for │
│     each activity    │
└─────────────────────┘
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┌─────────────────────┐
│ 6.Identify activity risks │
└─────────────────────┘
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┌─────────────────────┐
│  7.Allocate resources │
└─────────────────────┘
        ↓
┌─────────────────────┐
│     8.Review plan    │
└─────────────────────┘
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┌─────────────────────┐
│     9.Execute plan   │
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- Identify stakeholders
- Modify objectives in the light of stakeholder analysis
- Establish methods of communication with all parties.

Step 2:Identify project infrastructure
- Establish relationship between project and strategic planning
- Identify installation standards and procedures
- Identify project team organization.

Step 3:Analyse project characteristics
- Distinguish the project as either objectives or product driven

- Analyse other project characteristics
- Identify high level project risks
- Take into account user requirements concerning implementation.
- Select general life cycle approach
- Review overall resources estimates.

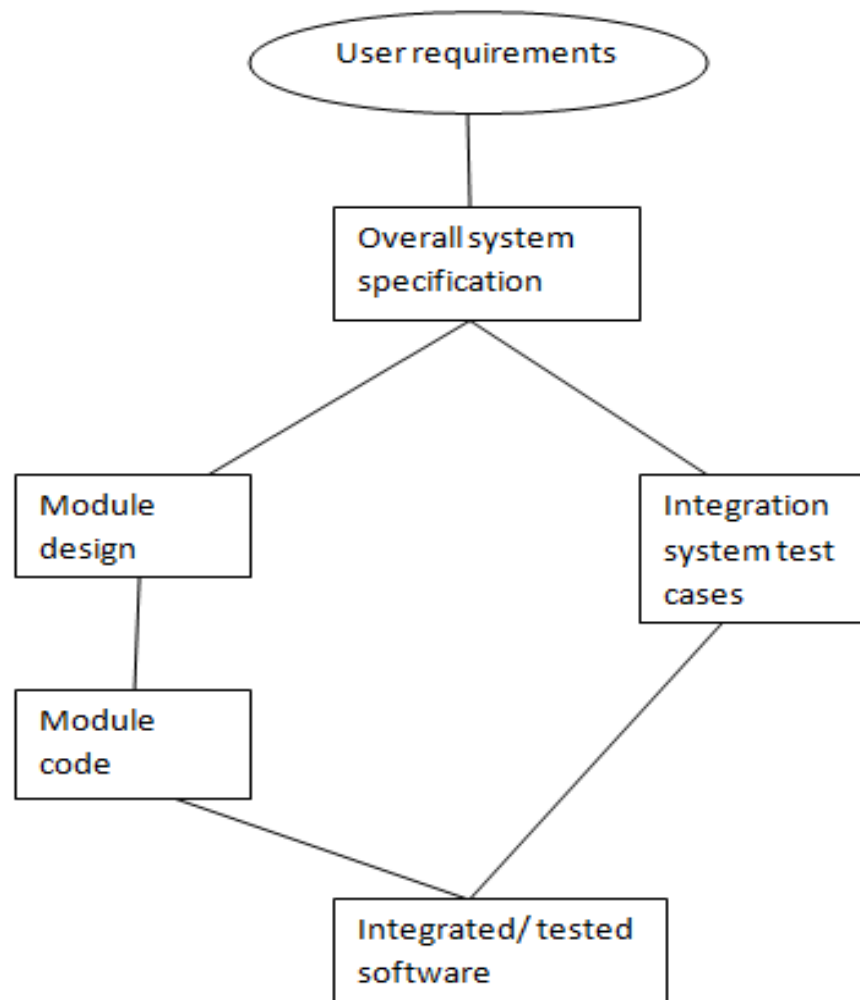**Step 4**:Identify project products and activities
- Identify and describe project products
- Document generic products flows
- Recognize product instances

- Produce ideal activity network
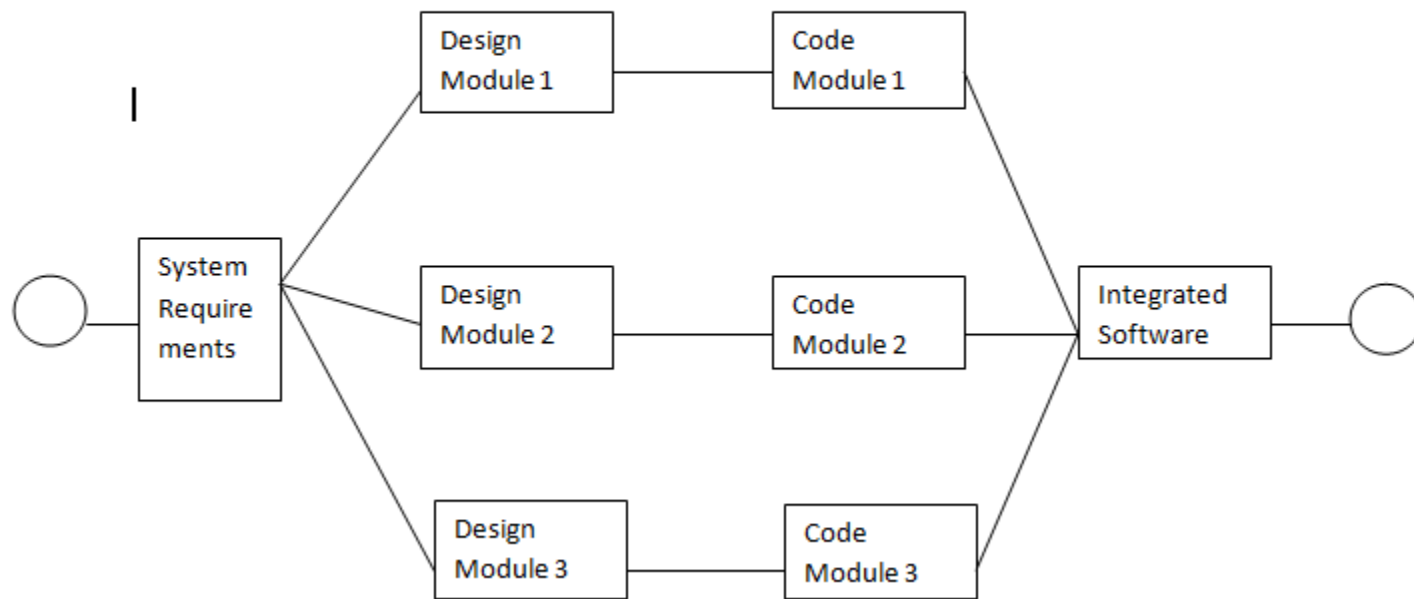- Modify ideal to take in to account need for stages and checkpoints.
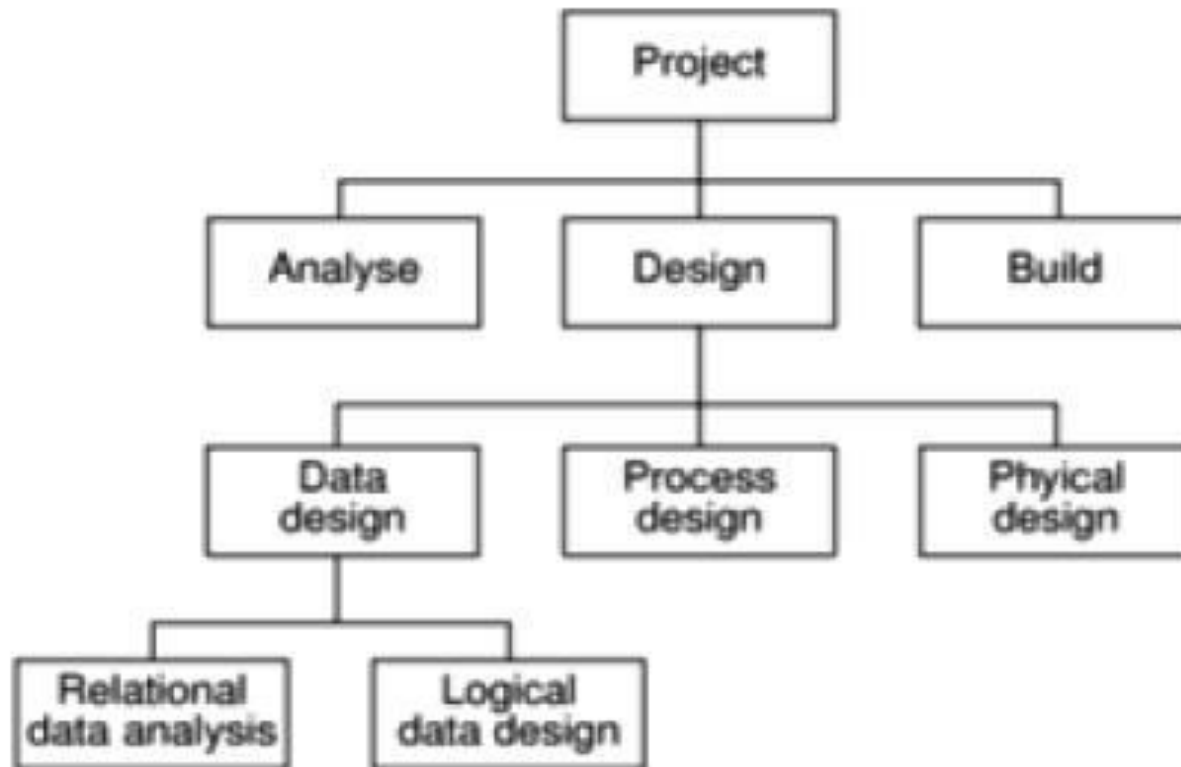
A fragment of an activity-based Work Breakdown Structure.

A fragment of a PFD for a software development task

Activity Network

Step 5:Estimate effort for each activity

- Carry out bottom-up estimates
- Revise plan to create controllable activities.

Step 6:Identify activity risks

- Identify and quantify activity-based risks
- Plan risk reduction and contingency measures where appropriate
- Adjust plans and estimates to take account of risks.

Step 7:Allocate resources

- Identify and allocate resources
- Revise plans and estimates to take account of resource constraints.
- Staff priority list is generated based on the task allocated to them because some staffs are used for more than one task.
- Gantt chart pictorially represents when activities have to take place and which one has to be executed at the same time.
- The chart represents when staff will be carrying out the tasks in each month.

Tasks/Months	JAN	FEB	MAR	APR	MAY
System requirements					
Design module 1					
Code module 1					
Design module 2					
Code module 2					
Integrated software					

Gantt chart showing staff tasks

Step 8:Review/publicize plan

- Review quality aspects of project plan.
- Document plans and obtain agreement.
- Steps involved in project plan review are,
  - Define the problem
    1) What, if any review work has already been done?
    2) What is the problem we are trying to solve?
  - Determine the focus
  - Select the appropriate tools
  - Identify the participants
  - Document the review plan

Step 9 and 10 :Execute plan/lower levels of planning

- ➢ It may require the reiteration of the planning process at a lower level.
- ➢ Detailed planning of later stages is necessary because more information will be available than the start stage.