

BIT-Semester 2

IT 2405

Systems Analysis and Design

Chapter 8

Project Management



- Demand for Project managers in the Information system community is strong.
- Information system project managers come from the ranks of experienced IS developers such as systems analysts
- Systems Analysts should be aware of Project management processes, tools and techniques.

Project Management...



- Project
 - A sequence of unique, complex, and connected activities that have one goal or purpose and that must be completed by a specific time, within budget, and according to specification

Project Management...

- Project manager
 - The person responsible for supervising a systems project from initiation to conclusion.
 - Should possess a wide range of technical, management, leadership and communication skills.



**Project
Manager**

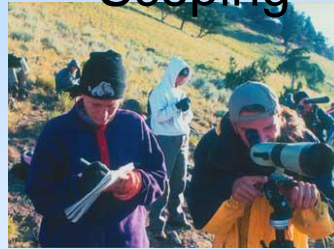
Project Management...

It is the process of

Staffing



Scoping



Planning



Directing



Organizing



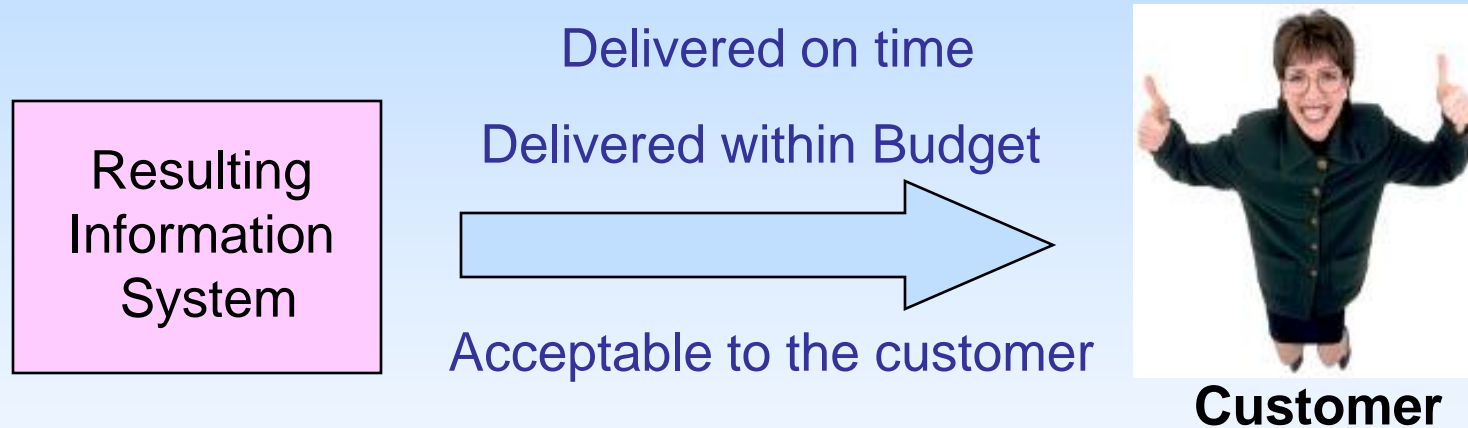
Controlling



the development of an acceptable system at a minimum cost within a specified time frame.

Project Management...

Necessary to ensure that the project



PM is a cross life cycle activity because it overlaps all phases of any systems development methodology.

Project Management...

- A project is successful if
 - The resulting Information system is acceptable to the customer
 - The system is delivered “on time”
 - The system is delivered “within budget”
 - The system development process had a minimal impact on ongoing business operations.
- Not all projects meet the above criteria, thus, not all projects are successful

Project Management...



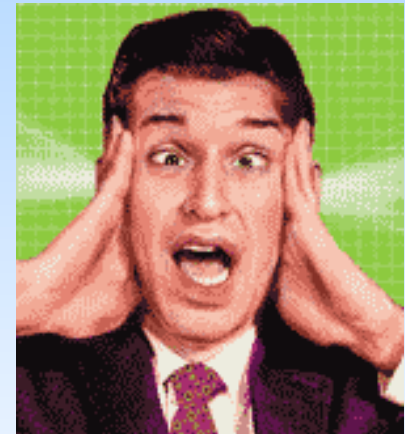
Causes of failed projects

- Failure to establish upper-management commitment to the project
- Lack of organization's commitment to the system development methodology
- Taking shortcuts through or around the system development methodology
- Premature commitment to a fixed budget and schedule
- Poor estimating techniques
- Premature commitment to a fixed budget and schedule
- Poor estimating techniques

Project Management...

Causes of failed projects...

- Over optimism
- The mythical man-month
- Inadequate people management skills
- Failure to adapt to business change
- Insufficient resources
- Failure to “manage to the plan”



Major cause of project failure is that most project managers were not educated or trained to be project managers.

Project Management...



Project Manager Competencies

- Good project managers possess a core set of competencies.
- Some of these can be taught in courses, books and workshops
- Some come only with professional experience in the field
- basic premises of project management competencies:
 - individuals cannot manage a process they have never used
 - Managers must have an understanding of the business and culture that provides a context for the project

Project Management...

Project Manager Competencies...



Influence Competencies

Problem-Solving
Competencies



Self-Management
Competencies

Business Achievement
Competencies

People Management
Competencies

Refer Table 4-1 pg 123 Ref1 for more details

Project Management...

Project management functions

- Scoping : scope defines the boundaries of the project. A project manager must scope project expectations and constraints in order to plan activities, estimate costs, and manage expectations.
- Planning : planning identifies the tasks required to complete the project.
- Estimating : each task that is required to complete the project must be estimated. (e.g. how much time will be required?, how much people will be needed? What skills will be needed? How much will it cost? Can some of the tasks overlap?...etc)

Project Management...

Project management functions...

- Scheduling : given the project plan, all project activities should be scheduled.
- Organizing : should make sure that members of the project understand their own responsibilities as well as their reporting.
- Directing : once the project has begun the project manager should direct the team's activities

Project Management...

Project management functions...

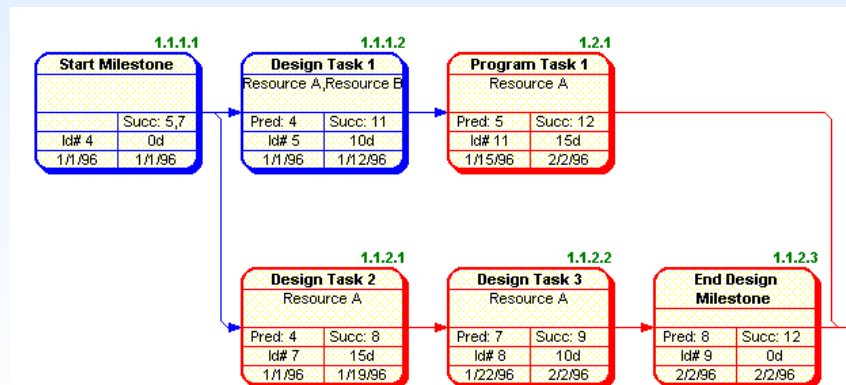
- Controlling : need to monitor and report progress against goals, schedule, and costs and need to make appropriate adjustments when necessary.
- Closing : good project managers assess success and failures at the conclusion of the project. They learn from mistakes and plan for continuous improvement of the systems development process.

All these functions depend on ongoing interpersonal communication among the project manager. The team, and other managers.

Project Management...

Project Management Tools and Techniques

- PERT chart
- Gantt chart



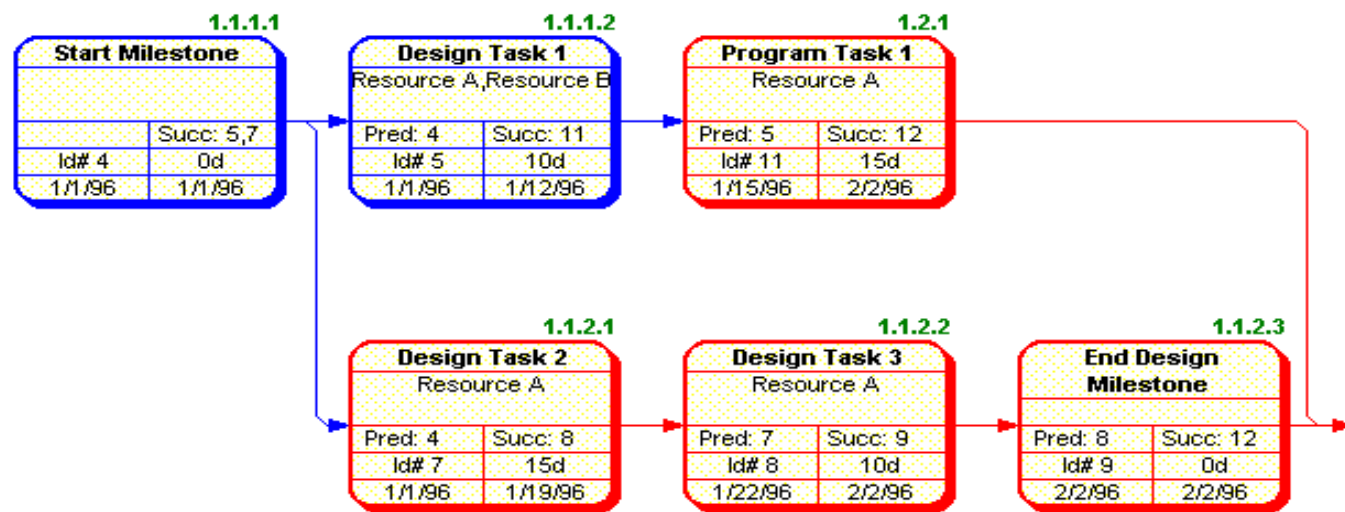
ID	Task Name	Duration	28 Jul '97							4 Aug '97							11 Aug '97						
			F	S	M	T	W	T	F	S	M	T	W	T	F	S	M	T	W	T	F	S	
1	Establish the need	2d																					
2	Set target date	1d																					
3	Establish leadtimes	1d																					
4	Book venue	1d																					
5	Choose advert location	1d																					
6	Agree format	2d																					
7	Devise tests	5d																					
8	Job description	2d																					
9	Set criteria	1d																					
10	Write advert	2d																					
11	Place advert	1d																					
12	Shortlist	3d																					
13	Invite candidates	1d																					
14	Conduct interviews	3d																					
15	Take decision	1d																					
16																							
17																							

Project Management...

Project Management Tools and Techniques...

A **PERT chart** is a graphical network model that depicts a project's tasks and the relationships between those tasks.

Eg.



Project Management...

Project Management Tools and Techniques...

- PERT stands for Project Evaluation and Review Technique
- Developed to make clear the interdependence between project tasks before those tasks are scheduled.
- Boxes represent project tasks
 - Content of the boxes can be adjusted to show various project attributes such as schedule and actual start and finished times.
- Arrow indicates that one task is dependent on the start or completion of another task.

Project Management...

Project Management Tools and Techniques...

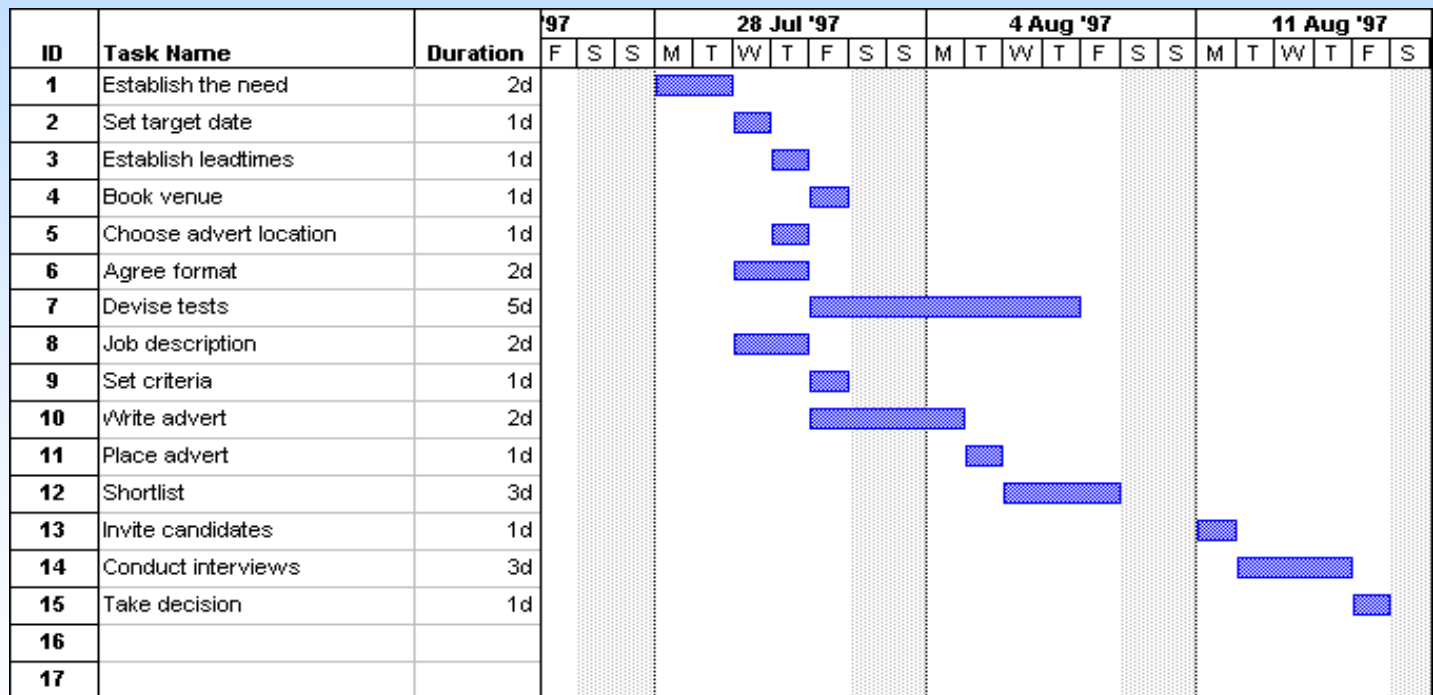
Gantt Chart

- The most commonly used project scheduling and progress evaluation tool
- a simple horizontal bar chart that depicts project tasks against a calendar.
- Each bar represents a named project task.
- The tasks are listed vertically in the left-hand column.

Project Management...

Project Management Tools and Techniques...

e.g.
Gantt
Chart



For more details : Ref1 p122 - 131

Project Management...

Project Management Tools and Techniques...

Gantt Chart...

Advantages

- Clearly show overlapping tasks
 - **Tasks that can be performed at the same time**
- the bars can be shaded to clearly indicate percentage completion and project progress
- Shows which phases are ahead of and behind schedule at a glance.
- Simple
- Easy to learn, read, prepare, and use

Project Management...

Project Management Tools and Techniques...

Gantt Vs. PERT

- Gantt and PERT charts are not mutually exclusive.
- Gantt charts are more effective when seeking to communicate schedule
- PERT charts are more effective when you want to study the relationships between tasks.

Project Management...

Project Management Tools and Techniques...

- Used to help project managers plan projects, develop schedules, develop budgets, monitor progress and costs, generate reports, and effective change.
- Automated project management tools :
 - Niku's Project Manager
 - Artemis international solutions corporation's 9000
 - Microsoft's Project
 - Primavera's Project Planner and Project Manager