3.2 Project Management Techniques

Project Management Process

- Initiation
- Planning
- Execution
- Closing down

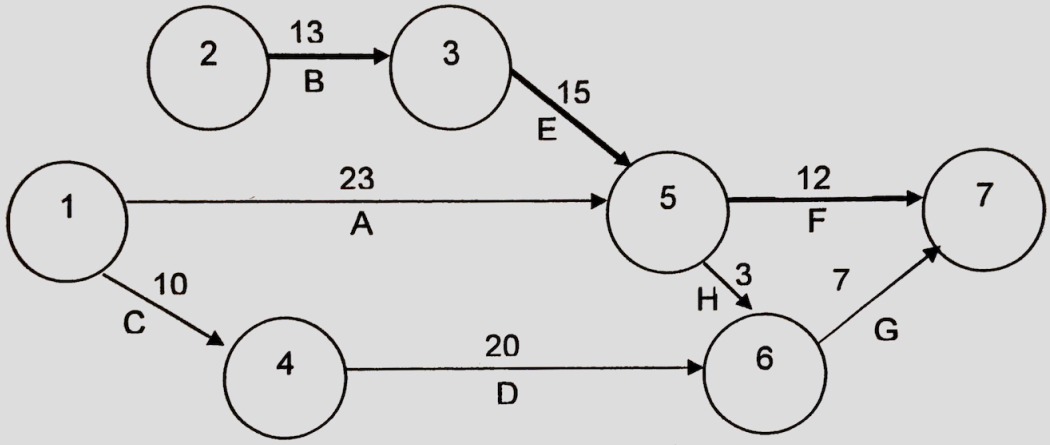
Project Management Tools

- **Gantt Chart:**
  - Used to plan time scale for project
  - Estimate resources required
  - Graphical illustration of schedule of tasks to complete
  - Helps to plan, coordinate and track specific tasks for a project

Project Planning Documentation											Page: 1 of 3
System: ABC Second-Hand Books											Date: 17 Jul 04
Legend: ——— Scheduled Activity ▬▬ Completed Activity		Analyst: Harry Chen									Signature:
Activities	Individual assigned	Week									
		1	2	3	4	5	6	7	8	9	10
1 Systems Planning											
1.1 Determine requirements	HC, John	▬	▬								
1.2 Evaluate alternative plan	HC		▬	▬							
1.3 Prepare design specifications	John			▬	▬						
2 Develop Data Storage											
2.1 Determine requirements	HC				▬	—					
2.2 Evaluate alternative structures	HC, Jack				▬	▬					
2.3 Design data structure & interfaces	Jack					—	—				
2.4 Build test database	Jack							—			
2.5 Code & test interfaces	HC, Ryan								—	—	
2.6 Build production database	Ryan								—	—	
3 Develop Data Retrieval											
3.1 Training on 4th generation tools	Team		▬	▬	▬						
3.2 Code programs	John, Bob									—	—
3.3 Test with test database	John, Bob										—
3.4 test with production database	John										

- **PERT Chart:**
  - Displays inter-dependency between tasks
  - Ability to calculate critical path (path that effectively

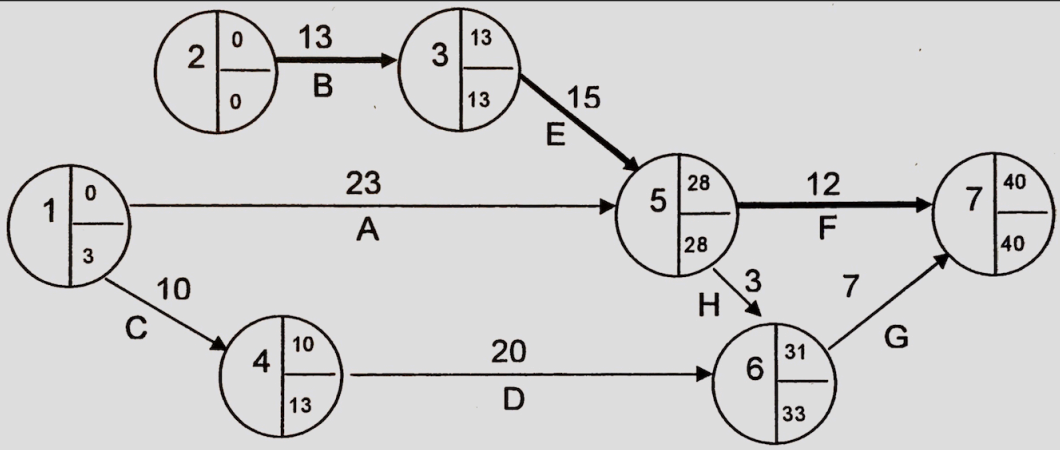
indicates completion time of project)
    - Dependent events: events where one can’t be started until another one has been completed
    - Concurrent events: events that can happen at the same time
- Use of critical path:
    - Good visual communication and planning tool for effective time management
    - Displays clearly interdependent relationships
    - Arranges tasks into optimal sequence of events for project to be completed most efficiently
    - Highlights critical / crucial tasks
    - Enables more effective resource allocation — resources can be diverted from non-critical tasks to critical tasks to ensure critical tasks are finished on time
    - Highlight "float times" for all activities (i.e. amt of time an activity can overrun without delaying the project)
- Process of critical path analysis:
    1. Breakdown project into logical sequence to be completed
    2. Estimate time duration for each task
    3. Arrange activities in the most efficient sequence
    4. Estimate total duration for project



4 Event 4

23 / A — It takes 23 unit of time to complete Activity A

Critical Path (path which effectively dictates the completion time of the project)



6 31 33 — Event 6, 31 is the earliest start time and 33 is the latest start time.

23 / A — It takes 23 unit of time to complete Activity A

Critical Path (path which effectively dictates the completion time of the project)