JKR Performance Based Standardized Project Management Training Workshop (Basic)

PROJECT TIME MANAGEMENT

Cawangan Pengurusan Projek Kompleks

Project Time Management

Objective

- Establishes and maintains appropriate allocation of time
- By planning, estimating, scheduling and schedule control
- Of the overall conduct of the project
- Through the successive the project life cycle.

Project Time Management

Definition

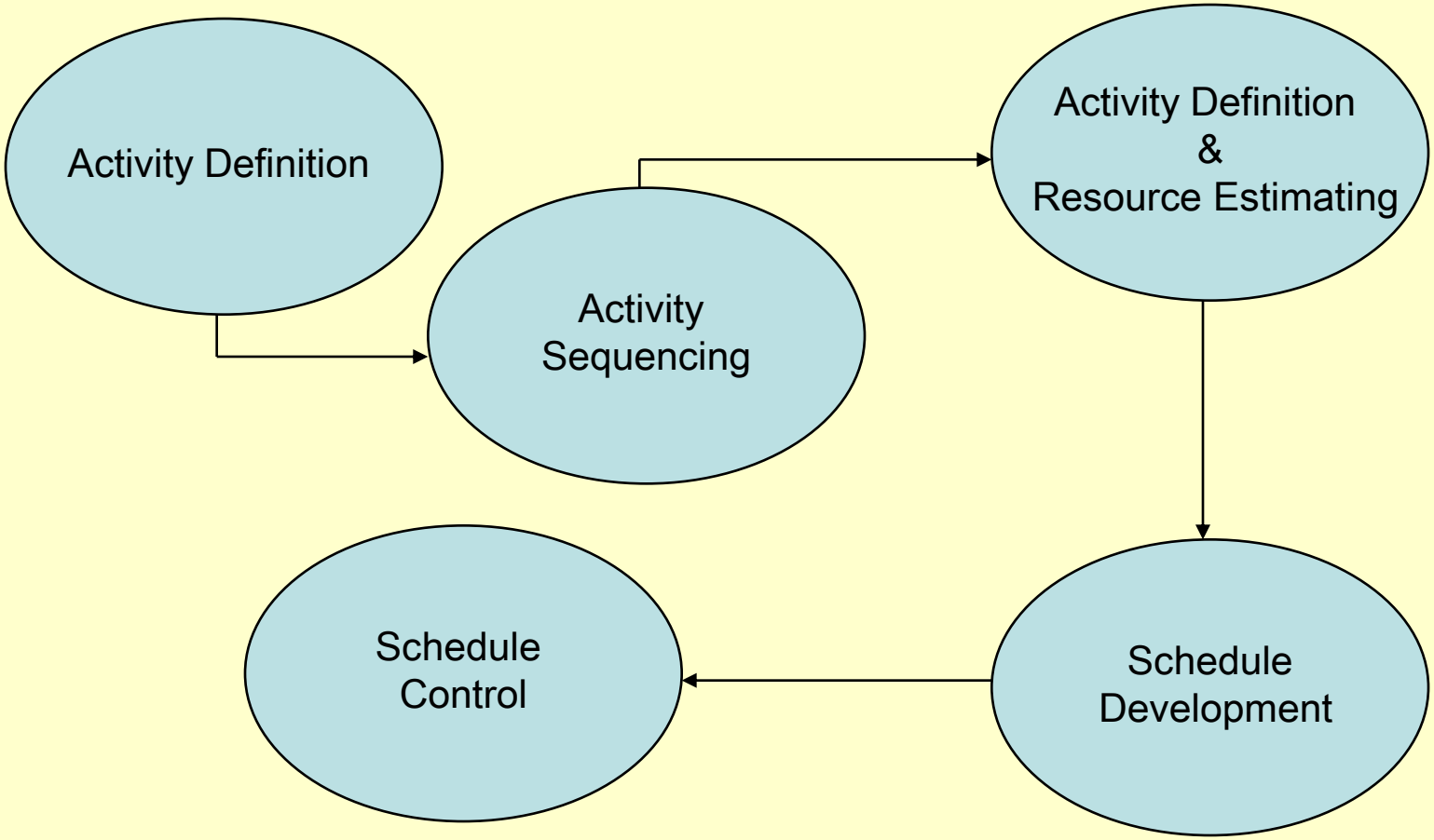
Involve the processes required to ensure timely completion of the project

Project Time Management

Project Time Management Processes

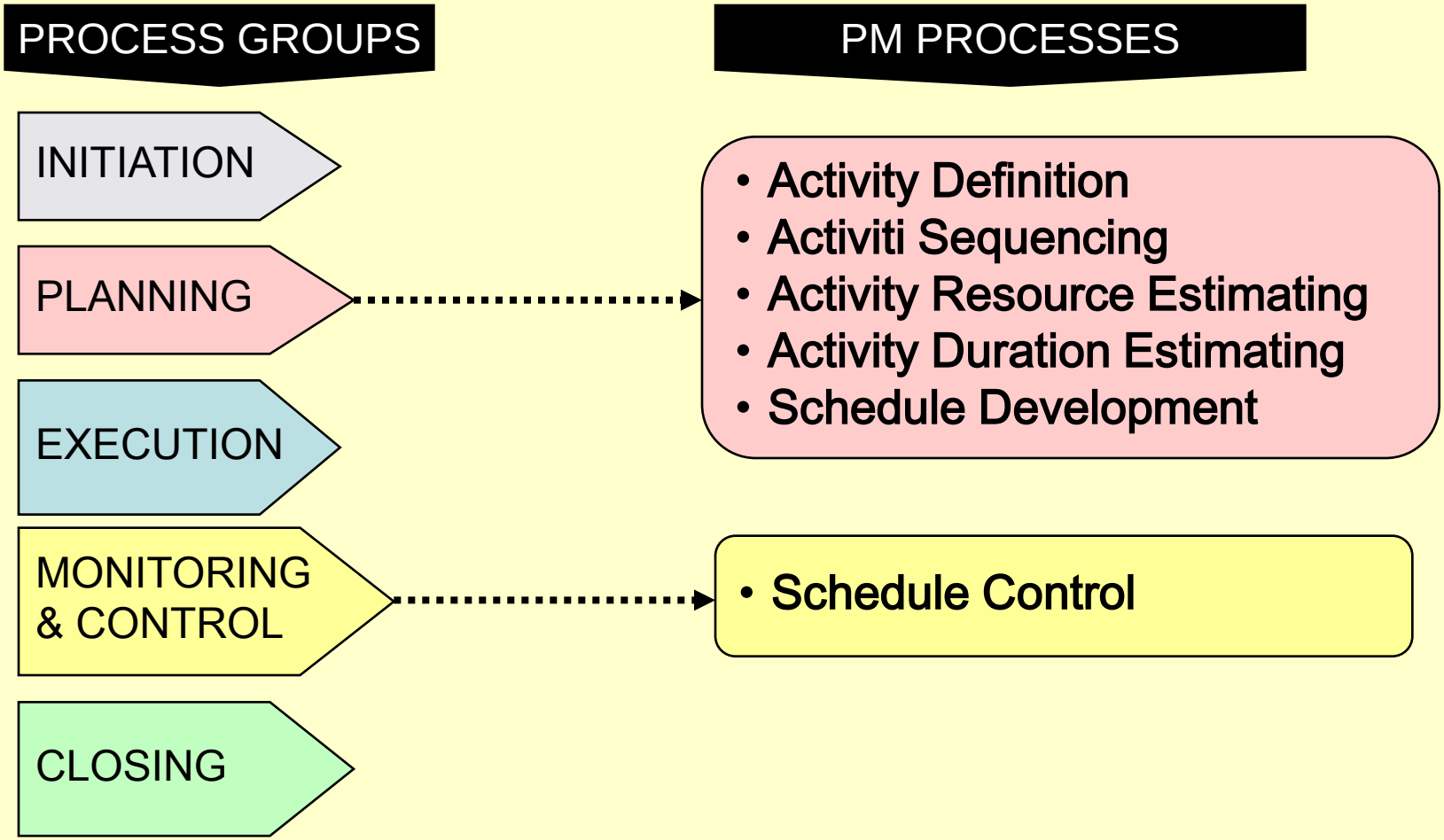
- Activity Definition
- Activity Sequencing
- Activity Resource Estimating
- Activity Duration Estimating
- Schedule Development
- Schedule Control

Project Time Management



Project Time Management Diagram

Project Time Management



Project Time Management

Activity Definition
Activity Sequencing
Activity Resource Estimating
Activity Duration Estimating
Schedule Development
Schedule Control

Processes

Activity Definition:

identifying and documenting the specific activities that must be performed to produce the various project deliverables

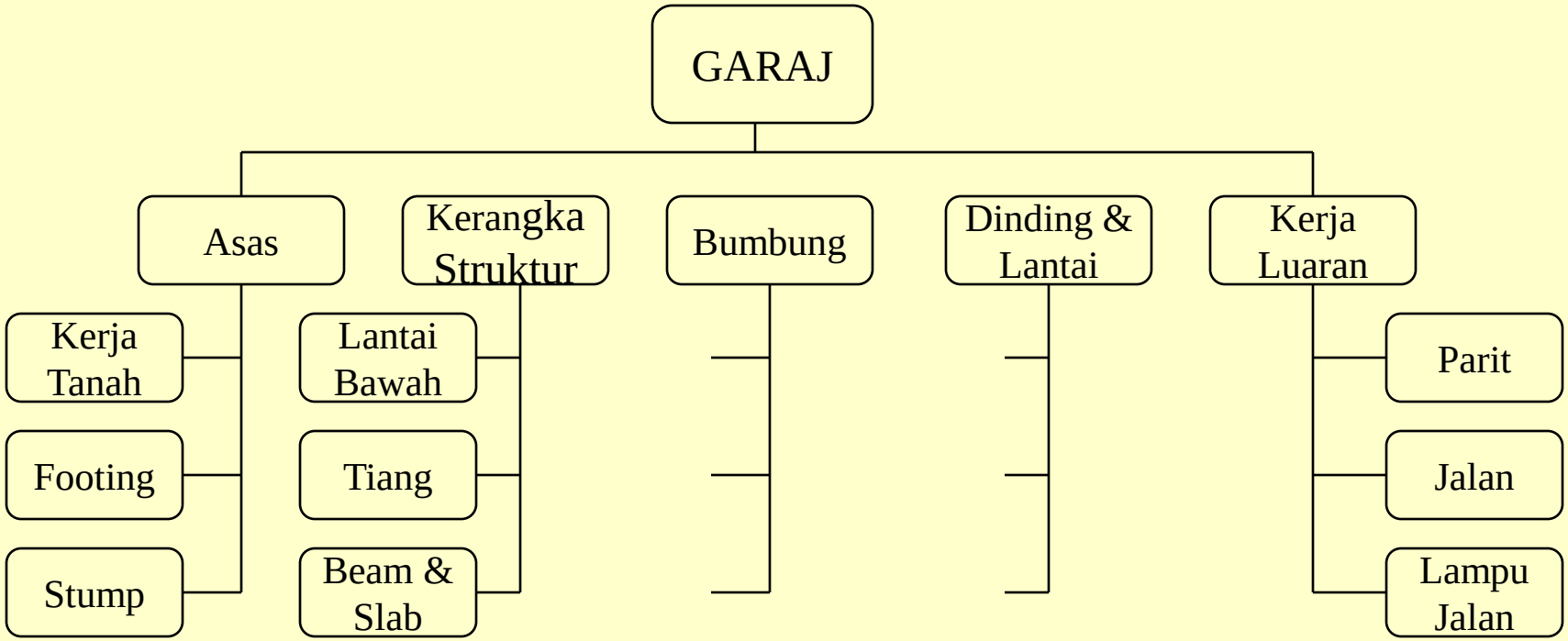
- Project Team and Key Stakeholders need to:
  - Define Project Scope
  - Define Project Duration
  - Define Project Cost

Project Time Management

- Work Breakdown Structure
- Constraints -Issues with a 100% probability of occurring and will limit project team options
- Assumptions- Your assumption on resources available, financial or technical expectations, commitments of other party

Project Time Management

Work Breakdown Structure (example)



Project Time Management

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Activity Sequencing:

- identifying and documenting interactivity dependencies

- Dependency/relationship

  - shows the sequencing of project activities or tasks

- Why must be in sequence?

  - to support later development of realistic and achievable schedule (e.g in procurement phase: advertisement, selling tender document, tender closing, evaluation of tender, tender board approval and LoA.)

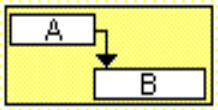
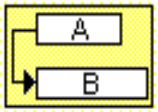
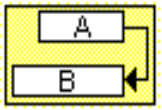
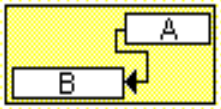
- Sequencing can be performed with the aid of a computer (e.g, by using Microsoft Project, Primavera)

Project Time Management

Task Dependency Type

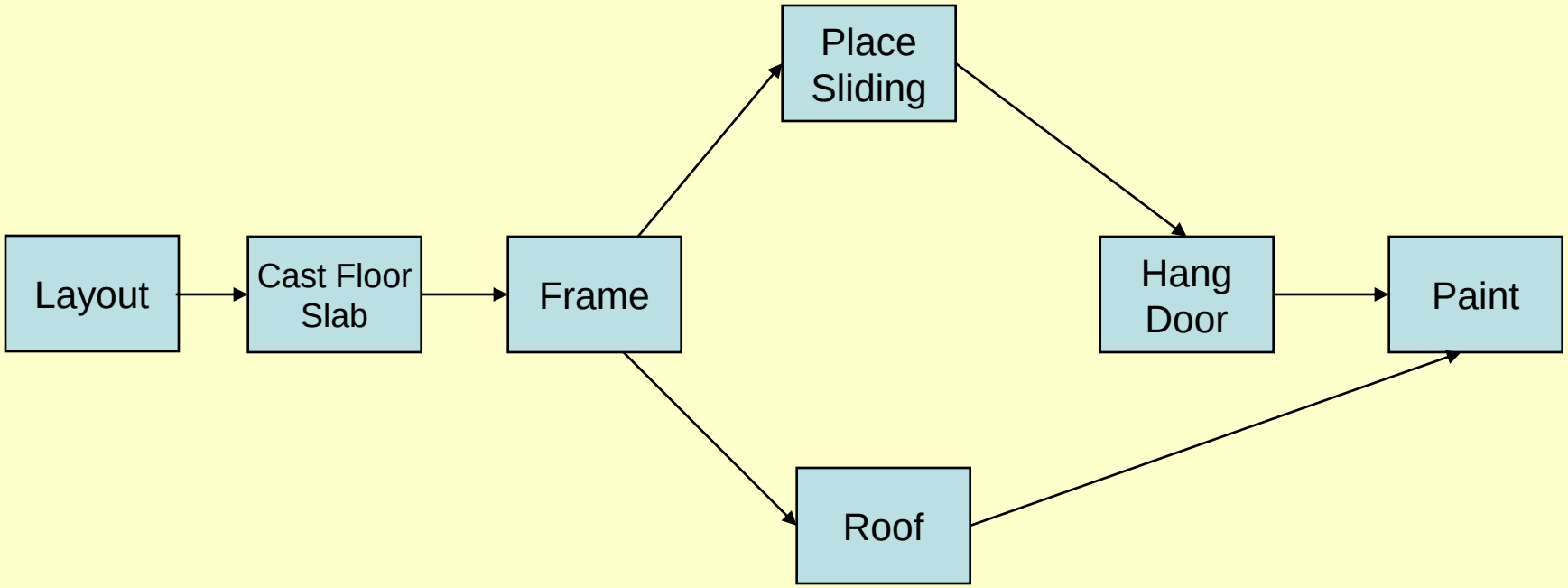
Task dependencies

The nature of the dependencies between linked tasks. You link tasks by defining a dependency between their finish and start dates. For example, the "Contact caterers" task must finish before the start of the "Determine menus" task. There are four kinds of task dependencies in Microsoft Project:

Task dependency	Example	Description
Finish-to-start (FS)		Task (B) cannot start until task (A) finishes.
Start-to-start (SS)		Task (B) cannot start until task (A) starts.
Finish-to-finish (FF)		Task (B) cannot finish until task (A) finishes.
Start-to-finish (SF)		Task (B) cannot finish until task (A) starts.

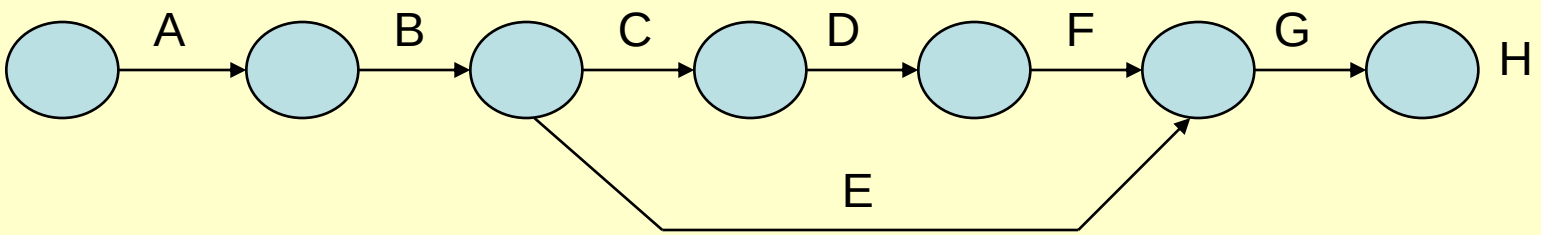
Project Time Management

Project Network Diagram Drawn Using the Precedence Diagram Method (PDM)



Project Time Management

Project Network Diagram Drawn Using the Arrow Diagram Method (ADM)



A = Layout

B = Cast Floor Slab

C = Frame

D = Place Sliding

E = Roof

F = Hang Door

G = Paint

H = Finish

Project Time Management

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Activity Resource Estimating:

Estimating schedule activity resources involves determining:

-what resources (4M) (persons, budget, equipment, or materiel)

-what quantities of each resource will be used

-when each resource will be available to perform project activities




Project Time Management

- Input:

  -Activity list

  -Resource Availability

  -Project Management Plan

- Method:

  -Expert Judgment: group or person with specialized knowledge in resource planning and estimating

  -Published Estimating Data e.g Jadual Kadar Harga

- Output:

  -Activity Resource Requirement (e.g, SPK)

  -Resource Breakdown Structure (e.g work program)

Project Time Management

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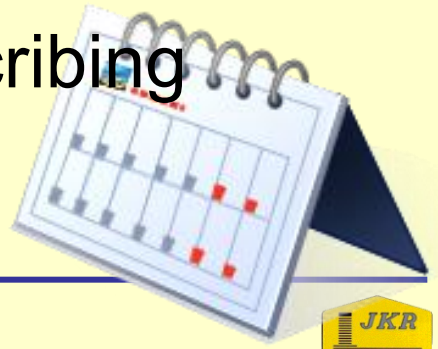
Activity Duration Estimating:

estimating the number of work periods which will needed to complete each identified activity.

- Duration includes actual amount of time worked plus elapsed time
- Review constrains and assumptions related to estimates
- Updates to WBS and a document describing basis of duration is produced



Project Time Management

- Method used:

  - expert judgment guided by historical information should be used whenever possible (e.g hospital project)

  - analogous estimating: means using the actual duration of previous and similar activity for estimating the duration of a future activity (e.g school project, standard design)

- Output:

  - activity duration estimates

  - basis of estimate for the project

  - activity list updates

Project Time Management

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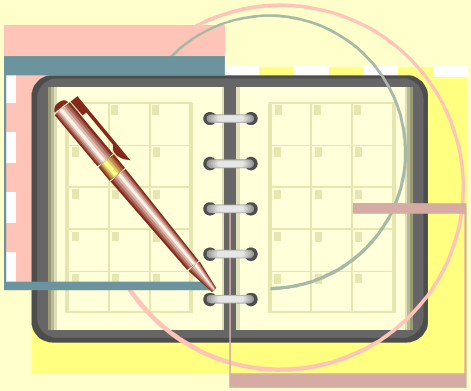
Schedule Development

- Determining start and finish dates for project activities
- Create a realistic project schedule
- Provides a basic for monitoring project progress

➢ Schedule development use:

- Project network diagram
- Activity duration estimates



Project Time Management

- The project will be monitor by:

  - Gantt Chart:

    - provides a standard format displaying project schedule information
    - milestone, summary tasks, tasks and relationship
    - Critical Path Method

      - Used to predict total project duration

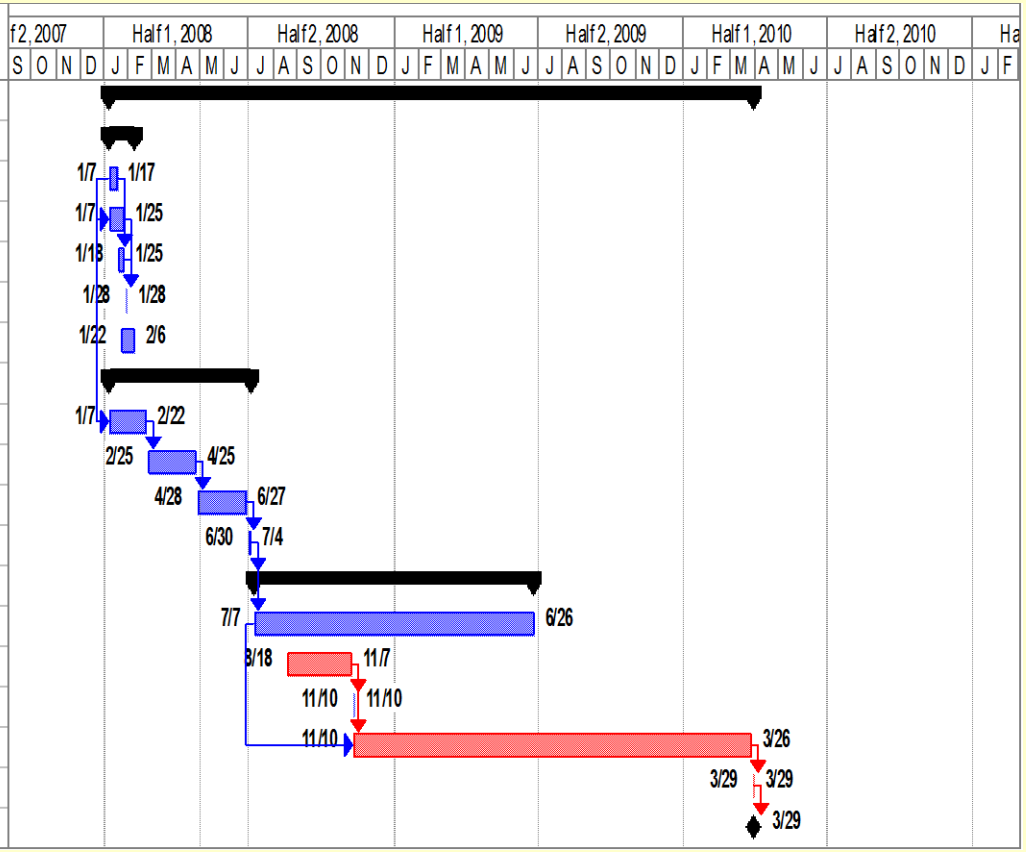
    - Critical Path

      - longest path through the network diagram

Project Time Management

Gantt Chart

ID	Task Name	Duration	Start
1	**Start**	**581 days?**	**Mon 1/7/08**
2	**PLANNING PHASE**	**23 days?**	**Mon 1/7/08**
3	Desk study & data collecti	9 days?	Mon 1/7/08
4	Need Statement	15 days?	Mon 1/7/08
5	Proposed Layout Plan	6 days?	Fri 1/18/08
6	Meeting with client	1 day?	Mon 1/28/08
7	Risk Management Plan	12 days?	Tue 1/22/08
8	**PROCUREMENT PHASE**	**130 days?**	**Mon 1/7/08**
9	Preparation	35 days?	Mon 1/7/08
10	Invitation for Tender	45 days	Mon 2/25/08
11	Evaluation of Tender	9 wks	Mon 4/28/08
12	Tender Award	1 wk	Mon 6/30/08
13	**DESIGN PHASE**	**255 days?**	**Mon 7/7/08**
14	Design	255 days?	Mon 7/7/08
15	Submission & Approval of	3 mons	Mon 8/18/08
16	Construction Drawing Ap	1 day?	Mon 11/10/08
17	**CONSTRUCTION PHASE**	18 mons	Mon 11/10/08
18	**HANDING OVER**	1 day?	Mon 3/29/10
19	End	0 days	Mon 3/29/10



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JKR

Project Time Management

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Schedule Control

controlling changes to the project schedule.

- Schedule control is concerned with:
  - Determining the current status of the project schedule
  - Influencing the factors that create schedule changes
  - Determining that the project schedule has changed
  - Managing the actual changes as they occur.

Project Time Management

- The process of managing changes to the project schedule, is based on several inputs:
  - -Project schedule
  - -Performance reports
  - -Change requests
  - -The schedule management plan

- Method used:
  - -Progress Reporting
  - -Performance measurement

Project Time Management

- Output

  -Schedule baseline

  -Requested change

  -Recommended corrective action

  -Lesson learnt

Project Time Management

Conclusion

- Time management is crucial for the successfulness of the project management.
- To effectively finish and manage a project, a project manager must be able to effectively manage time.

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