PROJECT MANAGEMENT FOR PROJECT MANAGERS

Lesson 3: Project TIME Management

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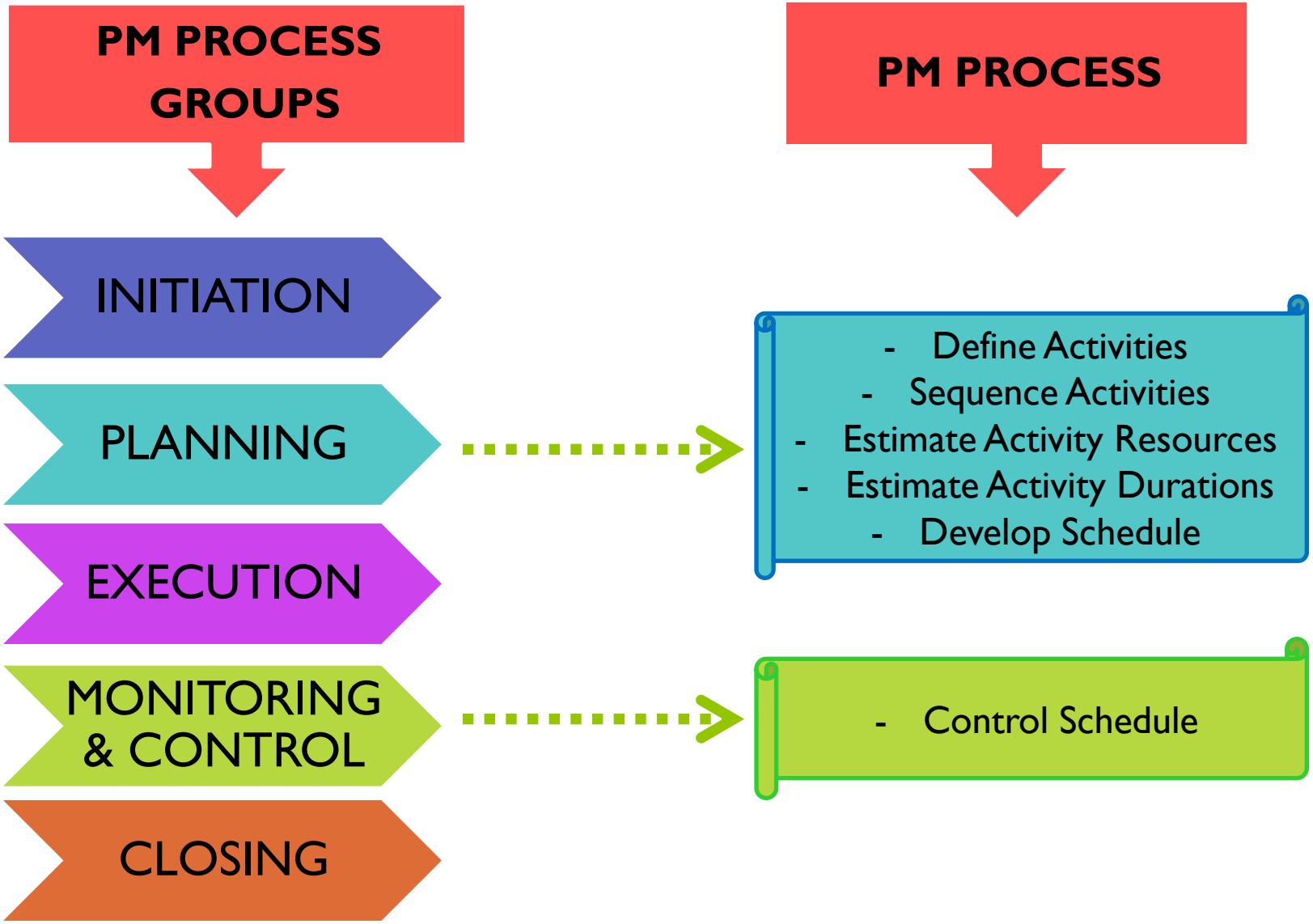
3.1: Definition

Project Time Management

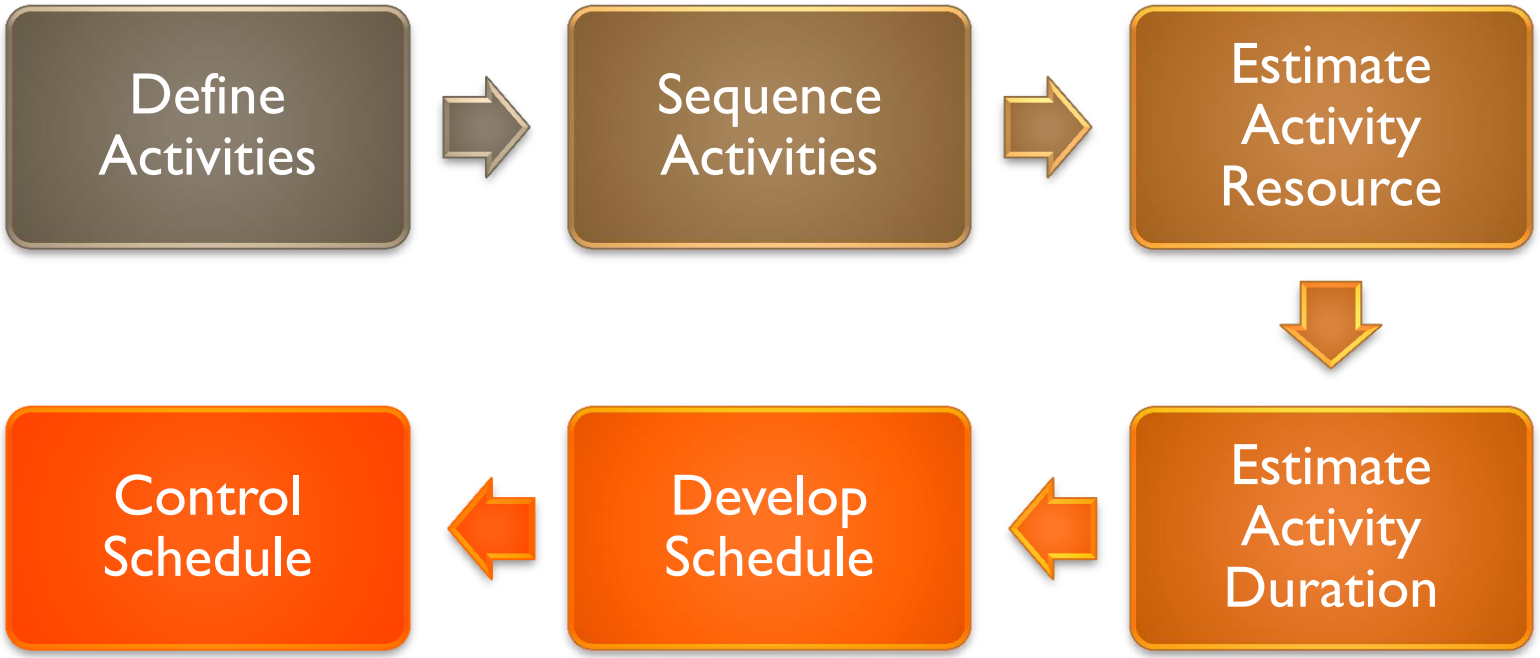
Involve the processes required to ensure timely completion of the project.

By PLANNING, ESTIMATING, SCHEDULING & SCHEDULE CONTROL of overall implementation of the project through the successive life cycle.

3.2: Project Time Management Processes



……Project Time Management Processes



3.4: Define Activity

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

- E.g. Needs Statement, Design Report, BQ, Drawings, Specifications, Buildings, Roads, Airports, etc.

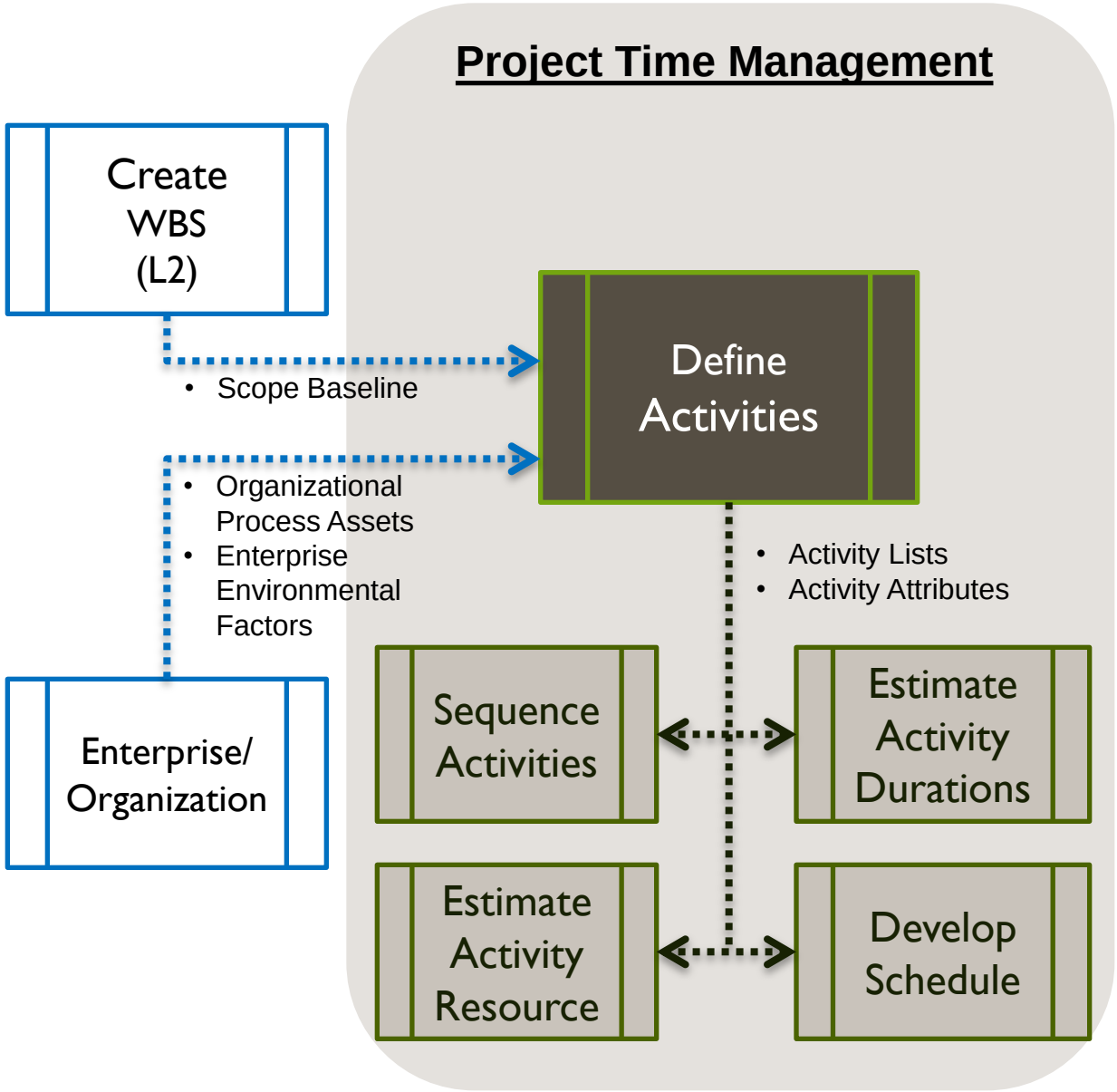
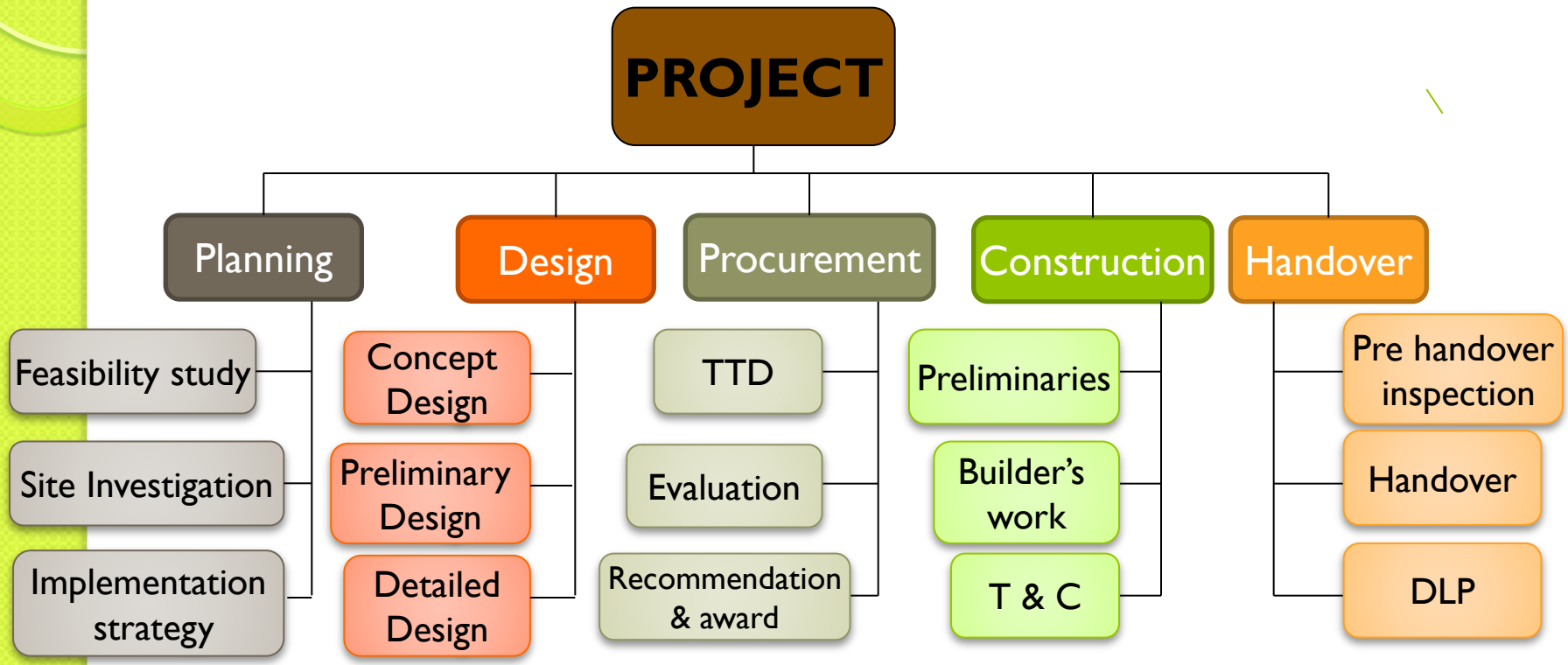
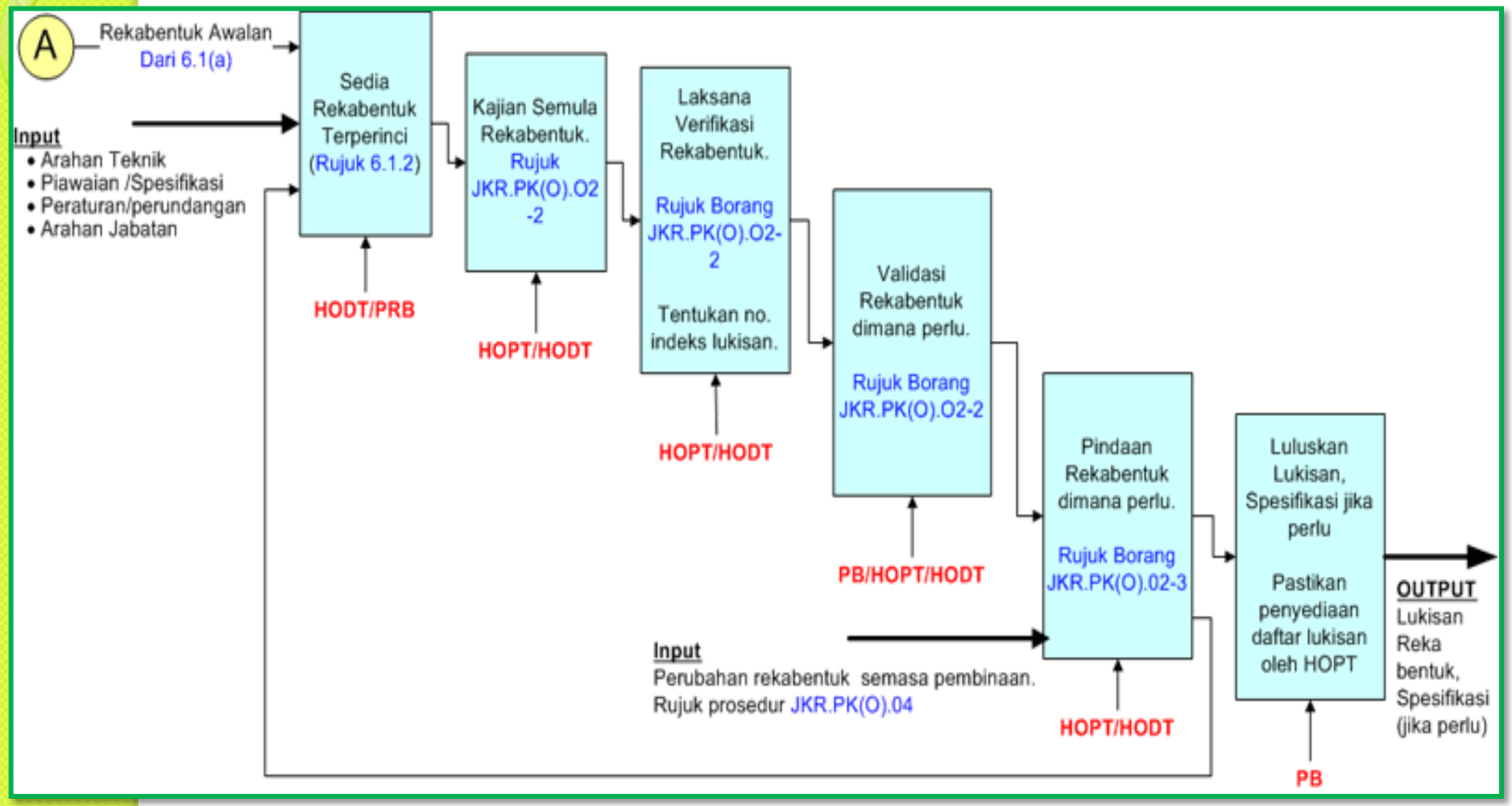


Figure 3.1: Define Activities Data Flow Diagram

3.4.1: Example of WBS Based on Project Phases



3.4.2: Example of Process Flow In JKR



3.5: Sequence Activities

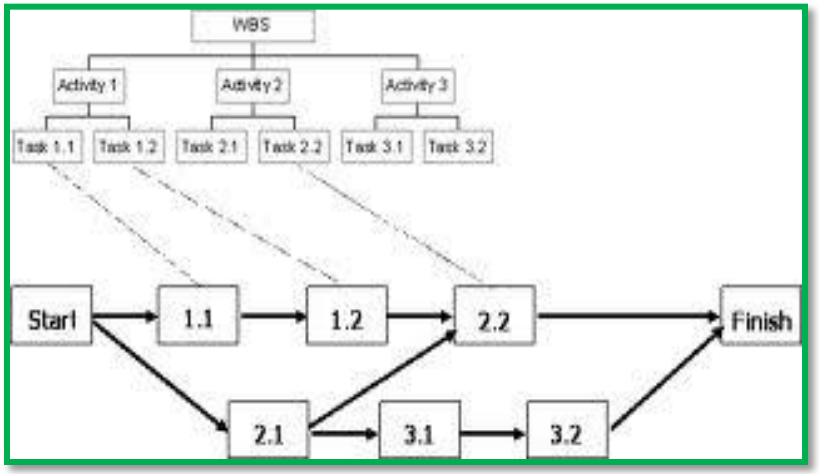
- Involve identifying and documenting interactivity dependencies.
  - ✓ Dependency/relationship
    - activities can be logically sequence with precedence relationship
    - Example:

      Procurement can start after design completed; detailed design can start after verification for preliminary design completed; plastering can start after brickworks completed
  - ✓ Sequencing can be performed with the aid of project management software (e.g. Microsoft Project & Primavera).

3.5.1:Tools & Techniques

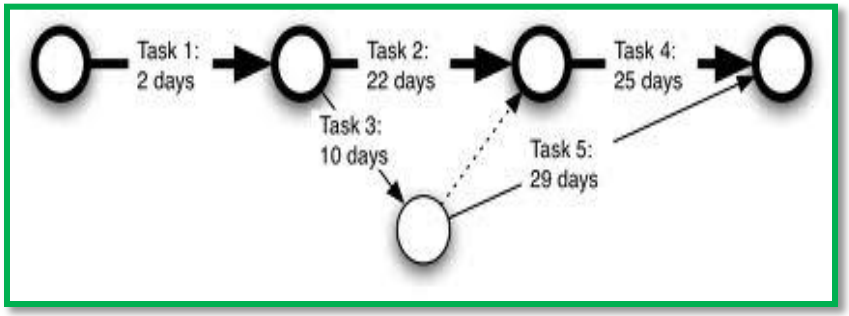
Precedence Diagram Method (PDM)

- Network Diagram that uses boxes, referred as nodes, to represent activities and connected with arrows to show dependencies.



Arrow Diagram Method (ADM)

- Network Diagram that uses arrows to represent activities and connect them at nodes to show dependencies.



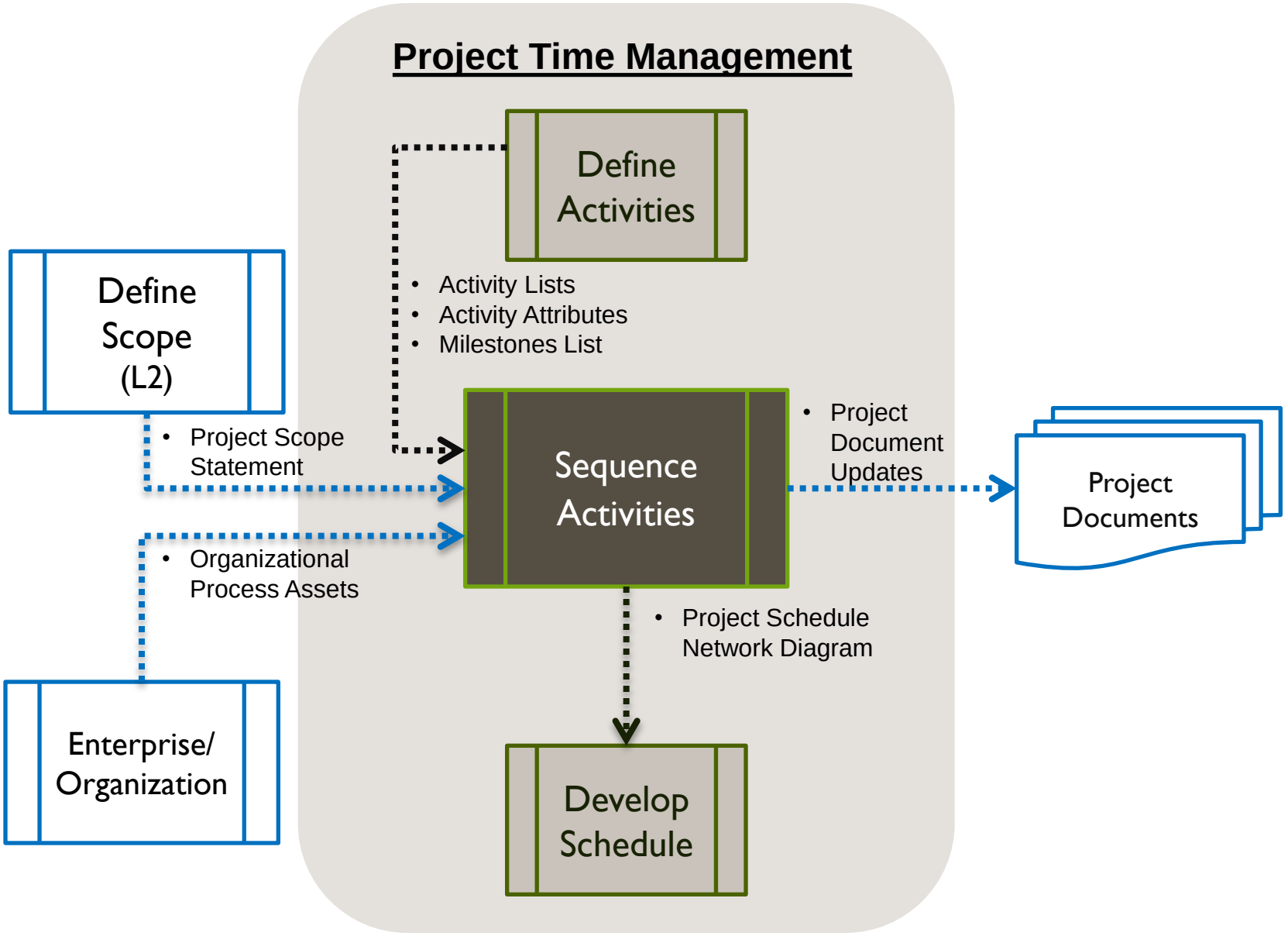
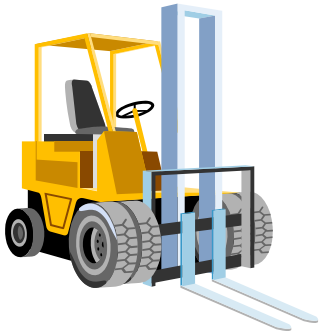
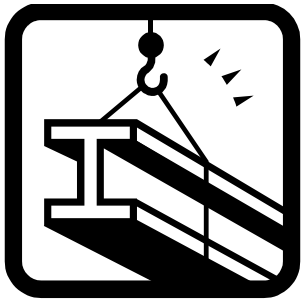


Figure 3.2: Sequence Activities Data Flow Diagram

3.6: Estimate Activity Resources

- Estimating schedule activity resources involves determining:
  - WHAT RESOURCES (persons, equipment, or material);
  - WHAT IS THE QUANTITY of each resource will be used;
  - WHEN EACH RESOURCES will be available to perform project activities.





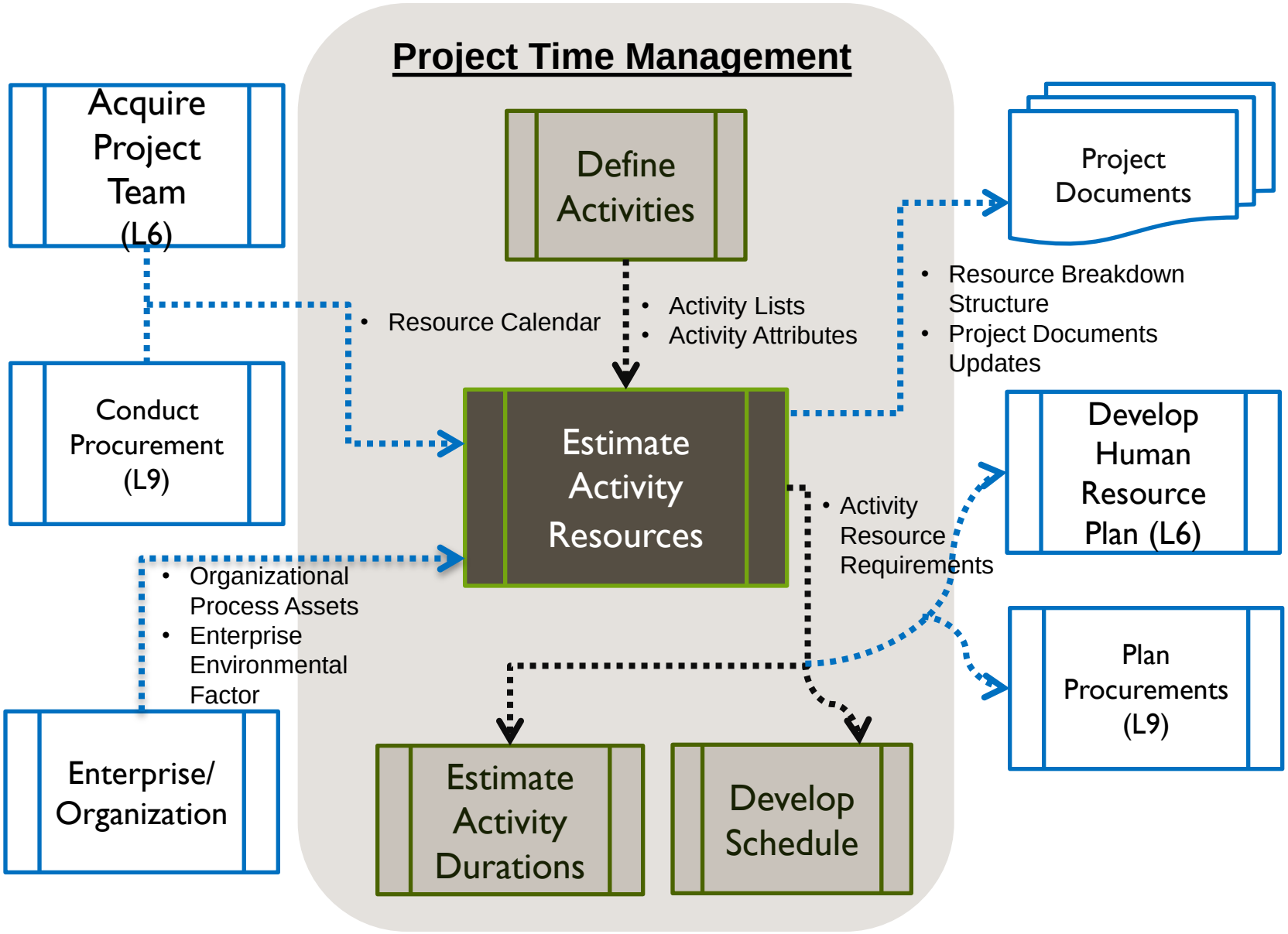


Figure 3.3: Estimate Activities Resources Data Flow Diagram

3.7: Estimate Activity Durations

- Involve estimating the number of work periods needed to complete each activity:
  - Duration includes amount of time required to complete the work plus elapsed time.
  - Consider constrains and assumptions related to estimates.
  - All supporting data and assumptions for duration estimating should be documented (for monitoring and review)

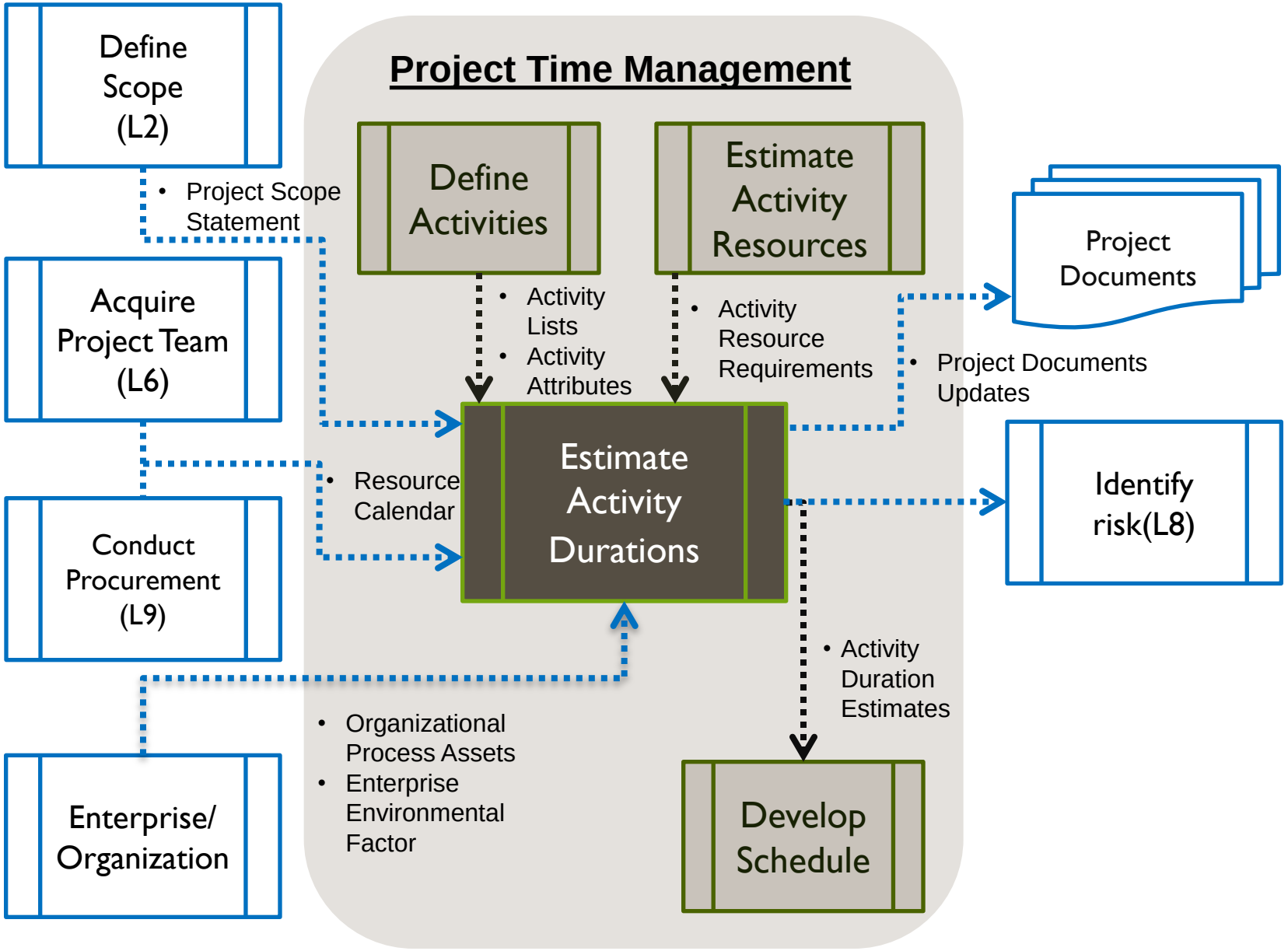


Figure 3.4: Estimate Activities Duration Data Flow Diagram

3.8: Develop Schedule

- An interactive process to determine start and finish dates for project activities.
- Approved project schedule serve as baseline in progress tracking.
- Provides basis for monitoring project progress (identifying variances).

Schedule Development Inputs:

a) Project start date
b) Activity duration estimates
c) Relationships
d) Project & resource calendar

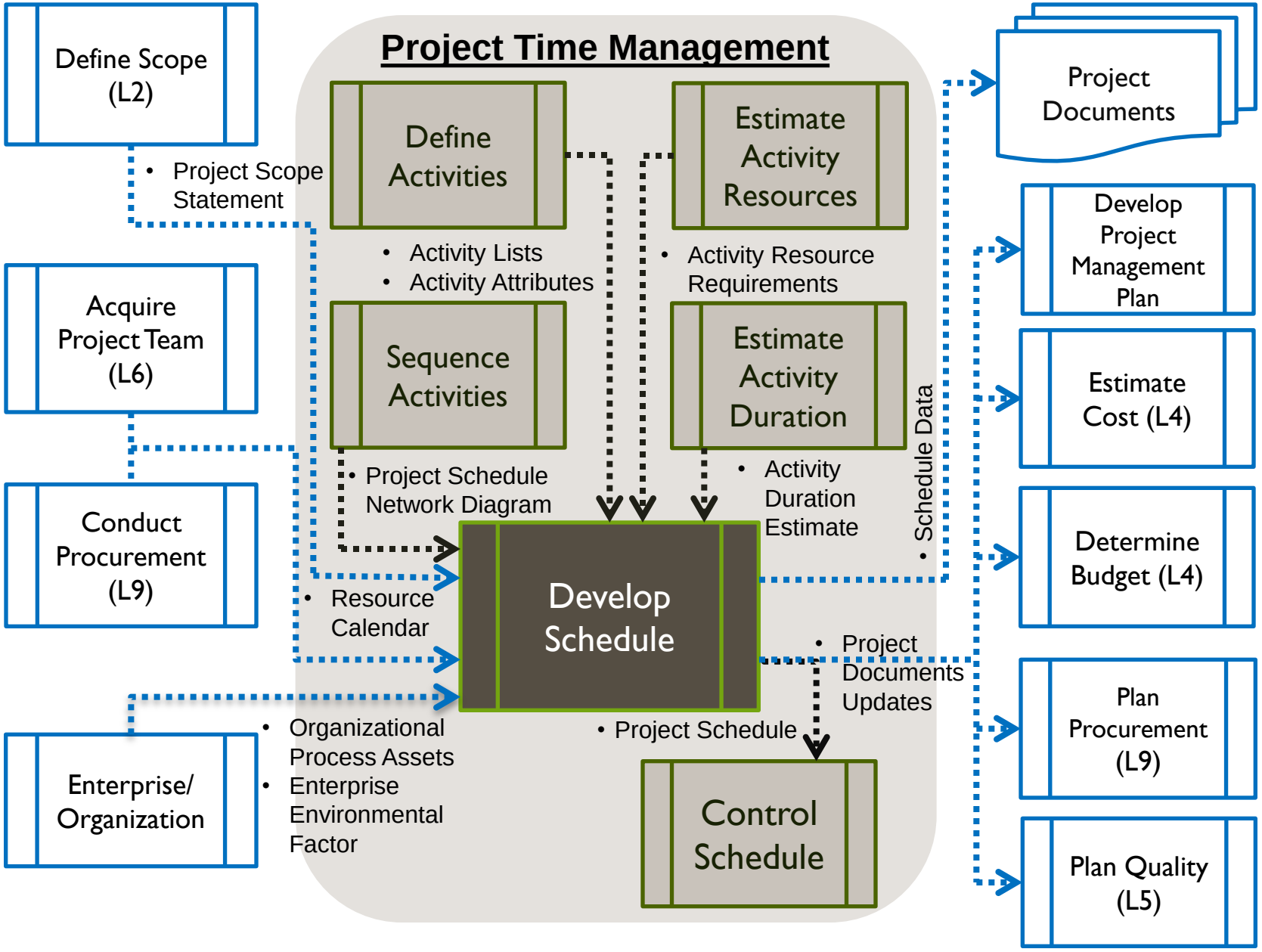
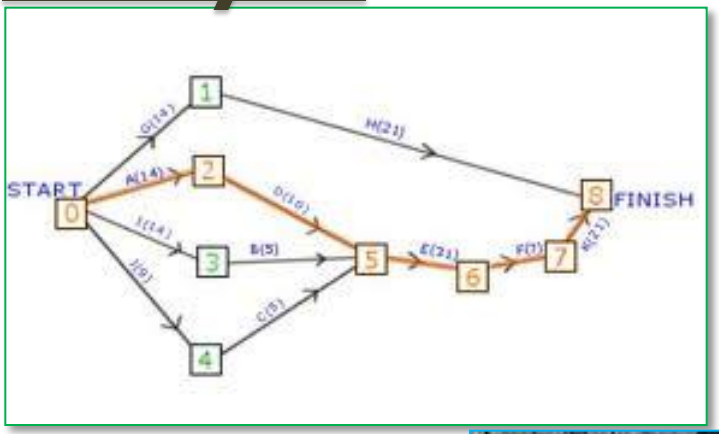


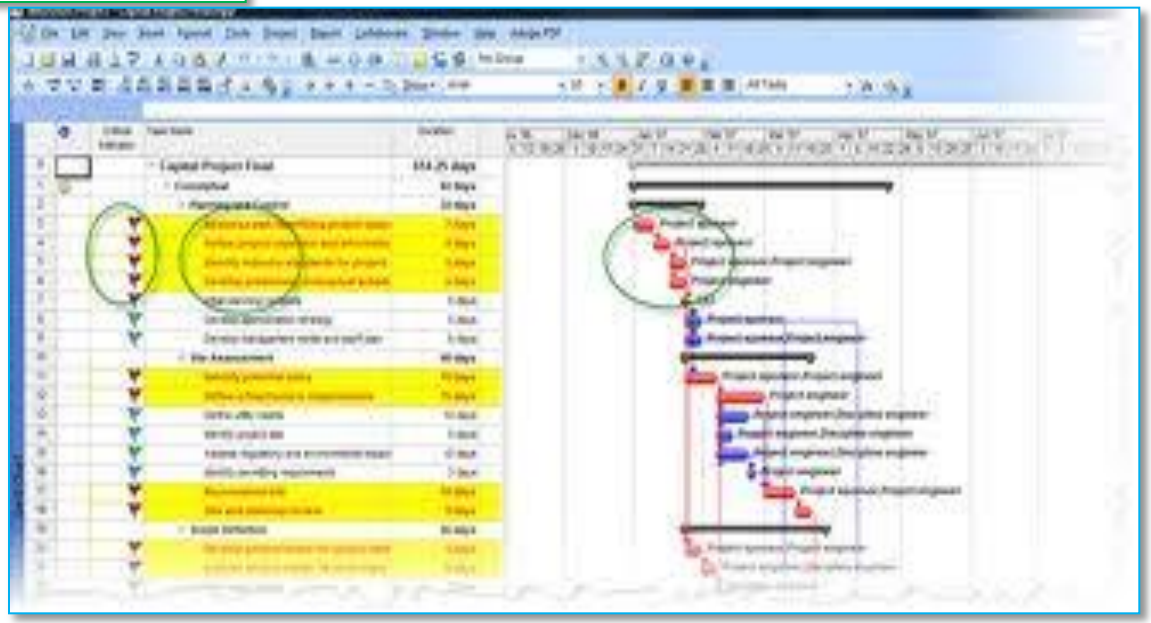
Figure 3.5: Develop Schedule Data Flow Diagram

3.8.1: Develop Schedule – Tools & Techniques

- Includes :
  - a) Critical Path Method
    - ✓ used to predict total project duration.
    - ✓ longest path through the network diagram.
  - b) Schedule compression
    - ✓ Shorten project schedule without changing scope, dates or other schedule objectives
  - c) Resource leveling
    - ✓ Used to address situation where shared or critical required resources are only available at certain time or limited quantities or to keep resource usage at a constant level during specific time period

3.8.2: Example of Critical Path Analysis

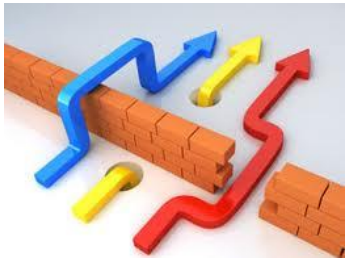




3.9: Schedule Control

Schedule control involves:

- Determining the current status of the project schedule (reporting date).
- Measuring the performance; e.g. actual start/finish date, % complete.
- Variance analysis; comparing the scheduled with the actual progress.
- Identify the factors that contributed to the variances and mitigation to narrow the gap.
- Identify changes (scope, quality, time) and determine effect on project completion date.
- Managing the changes as they occur.



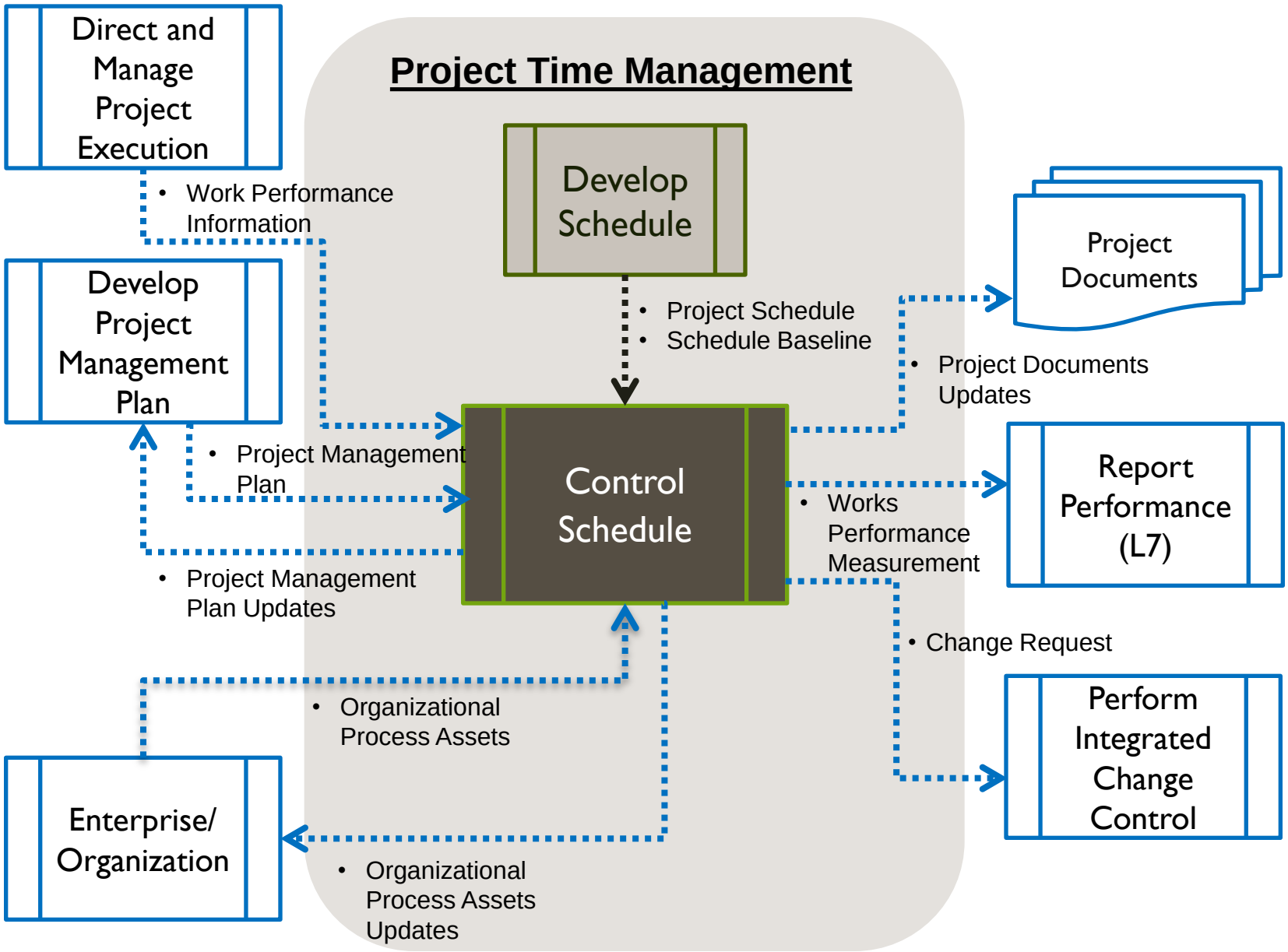


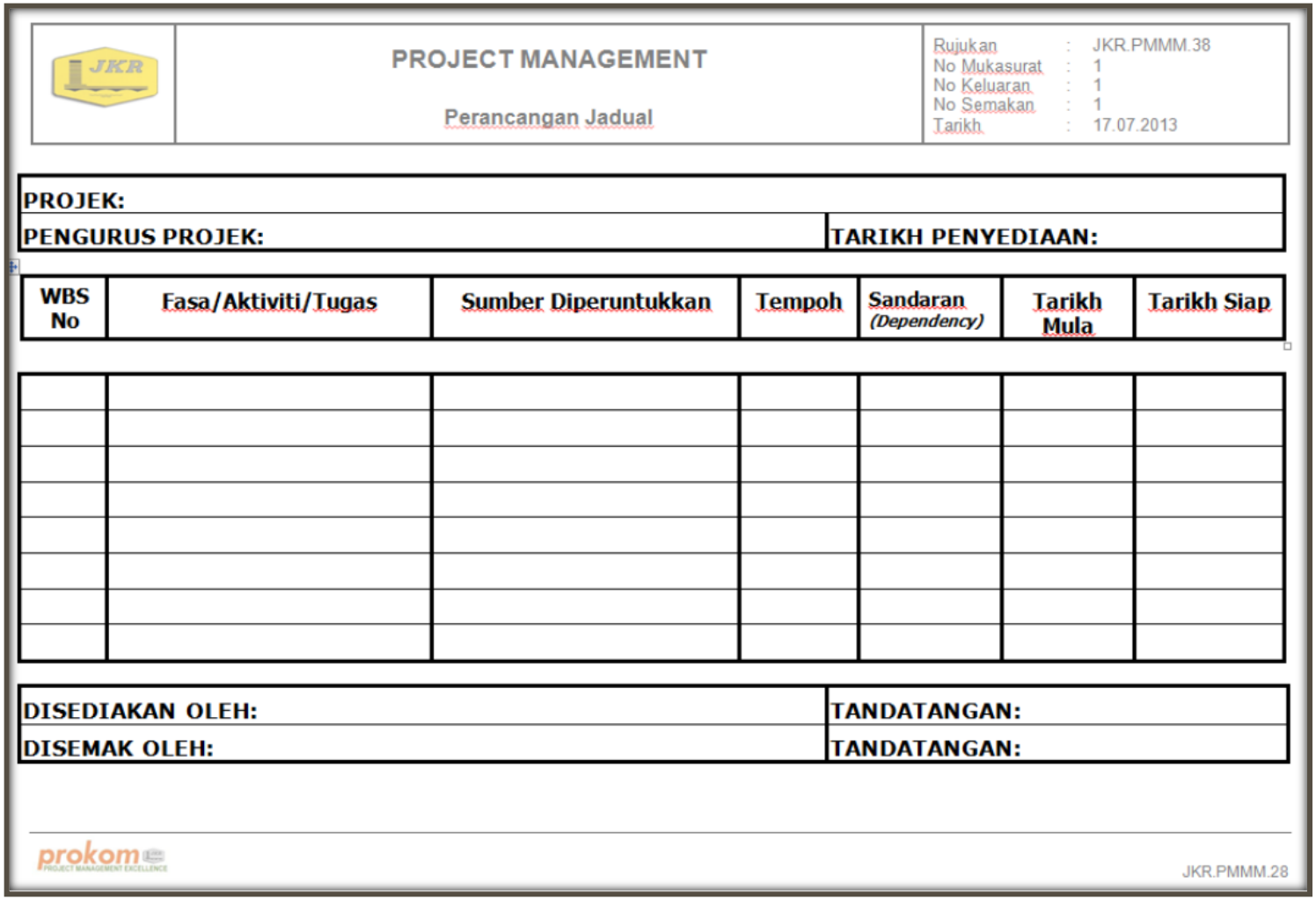
Figure 3.6: Control Schedule Data Flow Diagram

3.10: Exercise

Exercise 1

Create schedule base on information provided. Use schedule planning template.

Project Time Management Template: Create Schedule



	PROJECT MANAGEMENT Perancangan Jadual	Rujukan : JKR.PMMM.38 No Mukasurat : 1 No Keluaran : 1 No Semakan : 1 Tarikh : 17.07.2013

PROJEK:	
PENGURUS PROJEK:	TARIKH PENYEDIAAN:

WBS No	Fasa/Aktiviti/Tugas	Sumber Diperuntukkan	Tempoh	Sandaran *(Dependency)*	Tarikh Mula	Tarikh Siap

DISEDIAKAN OLEH:	TANDATANGAN:
DISEMAK OLEH:	TANDATANGAN:

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JKR.PMMM.28

3.11: Summary

- To effectively manage and complete a project, a project manager must be able to effectively manage resources and project activities.

References

- A Guide to the Project Management Body of Knowledge (PMBOK® Guide) – 4th Edition
- https://www.jkr.gov.my/prokom

Thank You