Lesson 4

Summary of Key Topics, Types of Networks

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Learning Objectives

1. Summary of key topics

2. Network representation
   Types of Networks & Comparison

3. Network Analysis - examples
   Forward Pass
   Backward Pass
   Results in Gantt chart
   Results for Project Planning
Learning Objectives

- Review of key topics covered
  - WBS, GANTT Chart, Duration Estimation
  - Network representation of projects
    - Network elements
      - AOA, AON & PDM
  - Network analysis
    - Forward pass
    - Backward pass
PMBOK- TIME Management

6.1 Define Activities
6.2 Sequence Activities
6.3 Estimate Activity Resources
6.4 Estimate Activity Duration
6.5 Develop Schedule
6.6 Control Schedule
Work Breakdown Structure

BUILDING PROJECT

DESIGN

PROCUREMENT

PROJECT MANAGEMENT

CONSTRUCTION

Structure

Services

Finishes

Sub-Structure

Super-Structure

Identify Activities
Activity Duration Estimating

6.4.2 Tools & Techniques
- Expert Judgment (Heuristic)
- Analogous Estimating (Data + Heuristic)
- **Parametric estimating**
- Three Point Estimate (Uncertainty)
- Reserve analysis (Buffer)

6.4.3 Outputs
- Activity duration estimates
- Activity attributes
BAR / GANTT Charts

- History
- Variations & Usage
- Advantages & Limitations
Project Planning Tools

- Bar/ Gantt Charts
- Critical Path Method
- Program Evaluation and Review Technique
- Monte-Carlo Simulation
- Dependency Structure Matrix