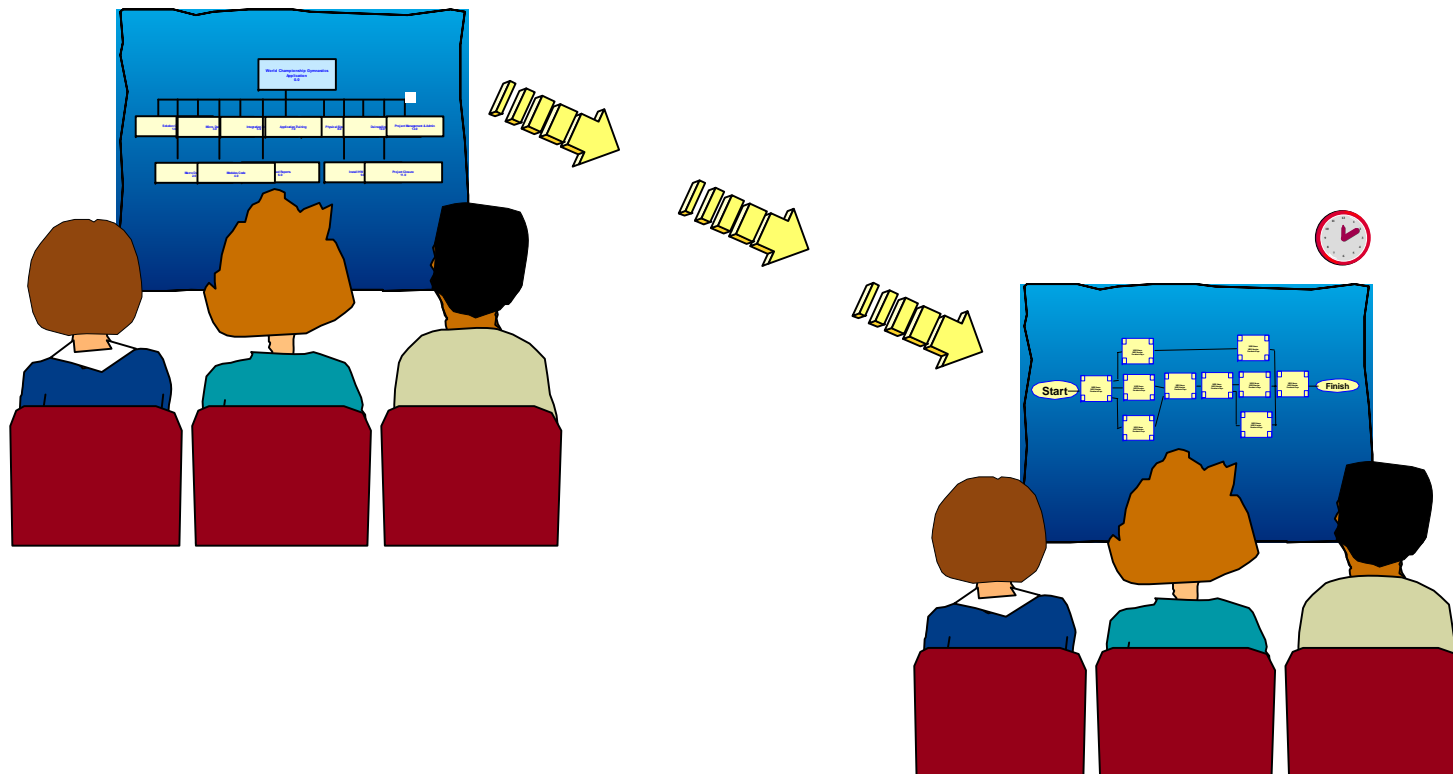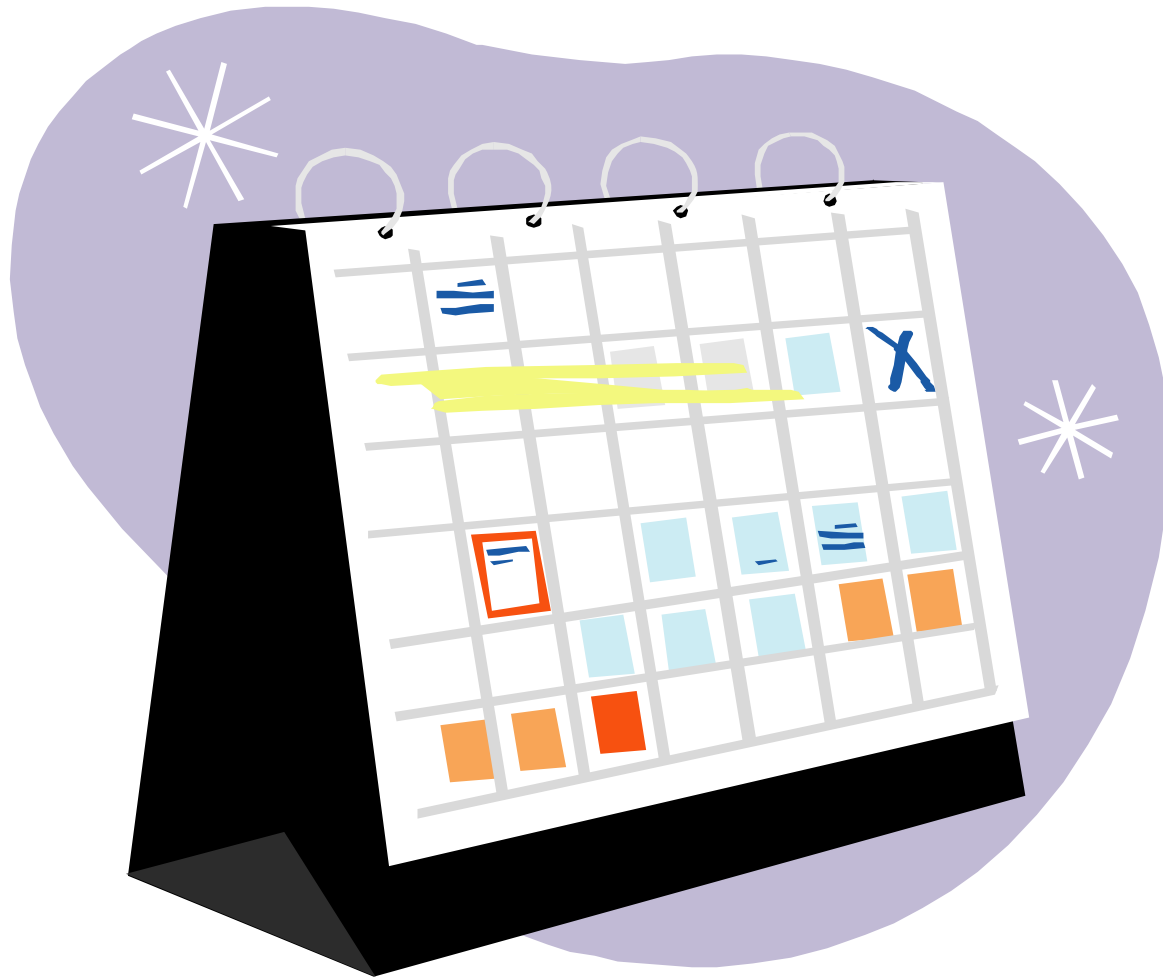# Creating a
Project Schedule

Module 7

Discussion
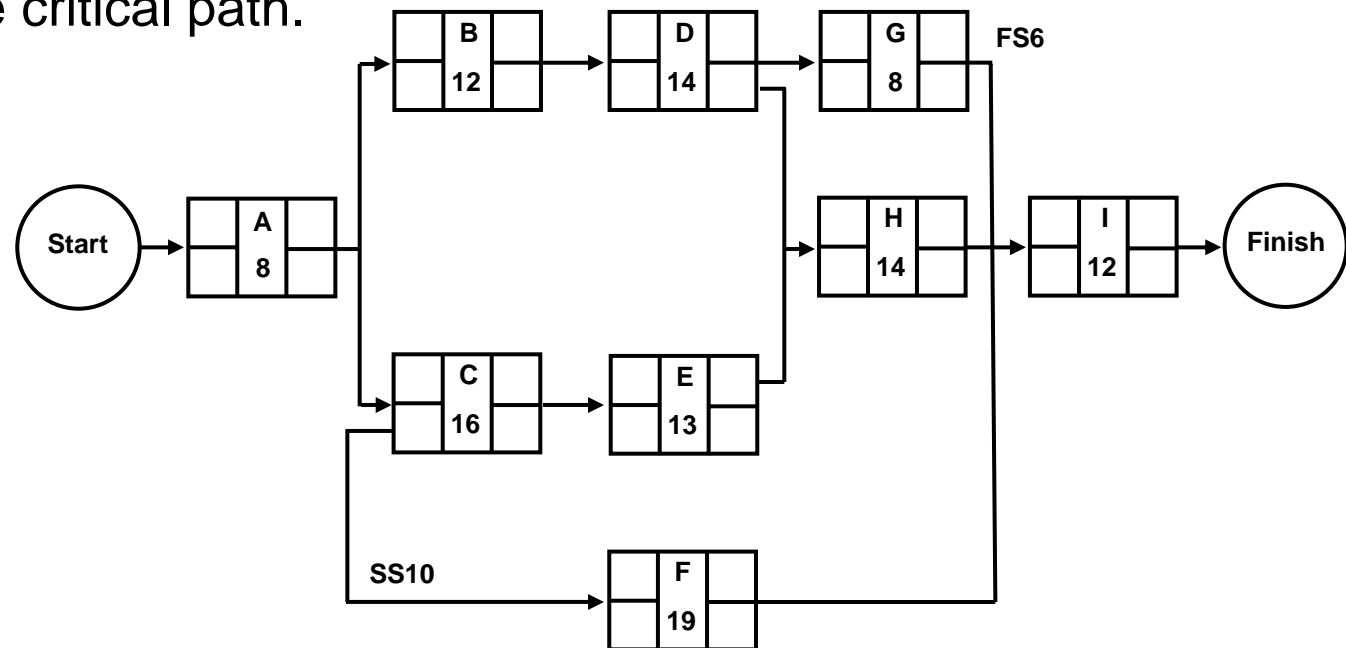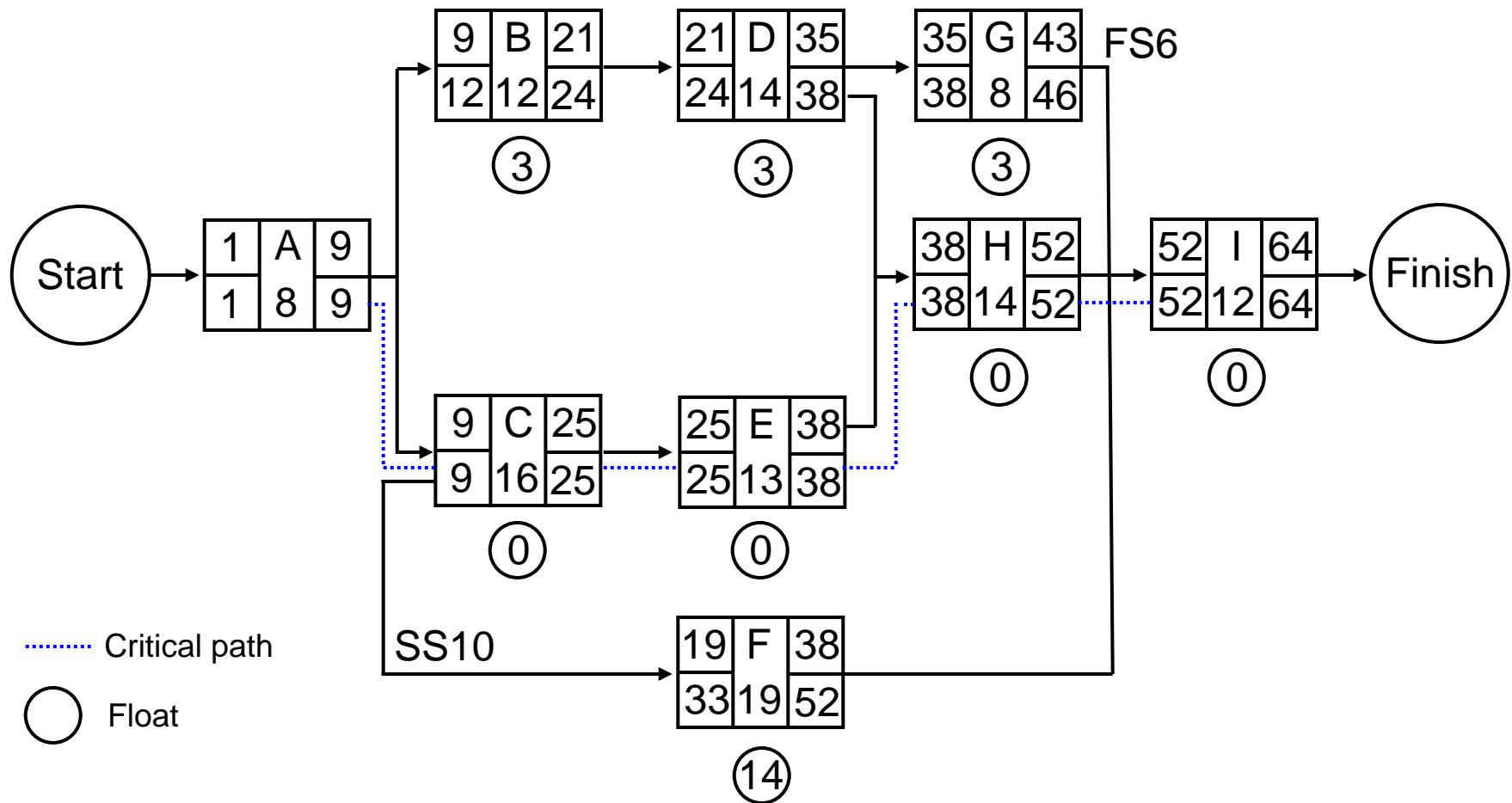
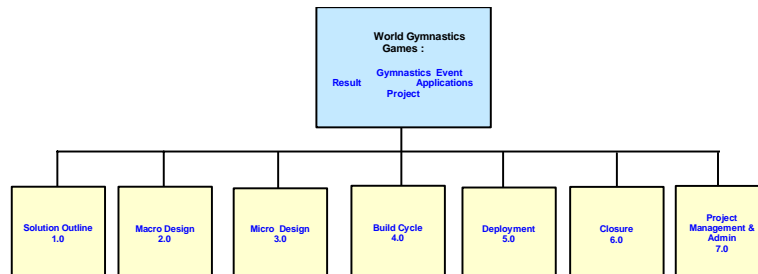# Critical Path Exercise

Work individually to complete this exercise:

1. Calculate the forward and backward passes.

2. Calculate the float for each path.

3. Define the critical path.

Exercise Solution

9	B	21
12	12	24

③

21	D	35
24	14	38

③

35	G	43
38	8	46

③

FS6

Start

1	A	9
1	8	9

38	H	52
38	14	52

⓪

52	I	64
52	12	64

⓪

Finish

9	C	25
9	16	25

⓪

25	E	38
25	13	38

⓪

SS10

19	F	38
33	19	52

⑭

······· Critical path

◯ Float

7-4

Scheduling Activity

World Gymnastics Games :

Gymnastics Event Applications Project

Result

- Solution Outline 1.0
- Macro Design 2.0
- Micro Design 3.0
- Build Cycle 4.0
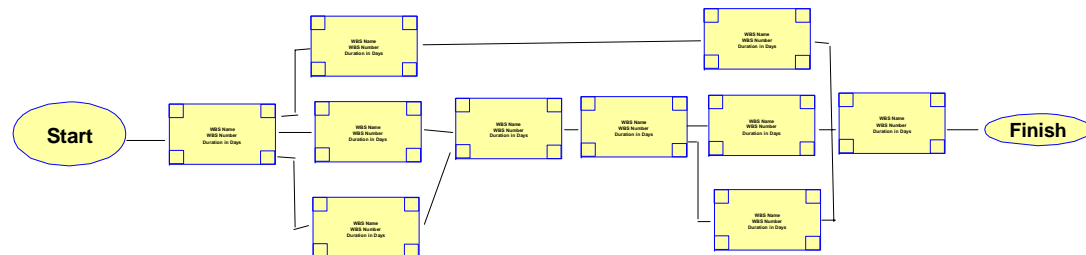- Deployment 5.0
- Closure 6.0
- Project Management & Admin 7.0

Your assignment is to convert one of the "legs" of your combined PBS / WBS from this...

Remember.... only work packages (tasks) go into the network diagram. Once there, they are called "nodes"..

...into this

Start

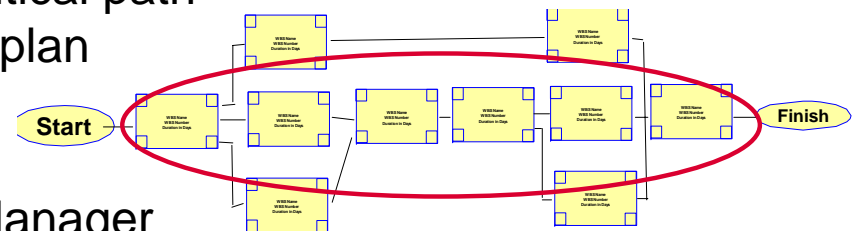WBS Name WBS Number Duration in Days

Finish

Scheduling Activity

Purpose: Practice developing a precedence diagram and identifying the critical path.

Process:
1. Using the work breakdown structure you defined earlier, develop a precedence diagram for the tasks in one "leg" of your WBS
2. Calculate the forward pass
3. Calculate the backward pass
4. identify float, critical path, and near-critical path
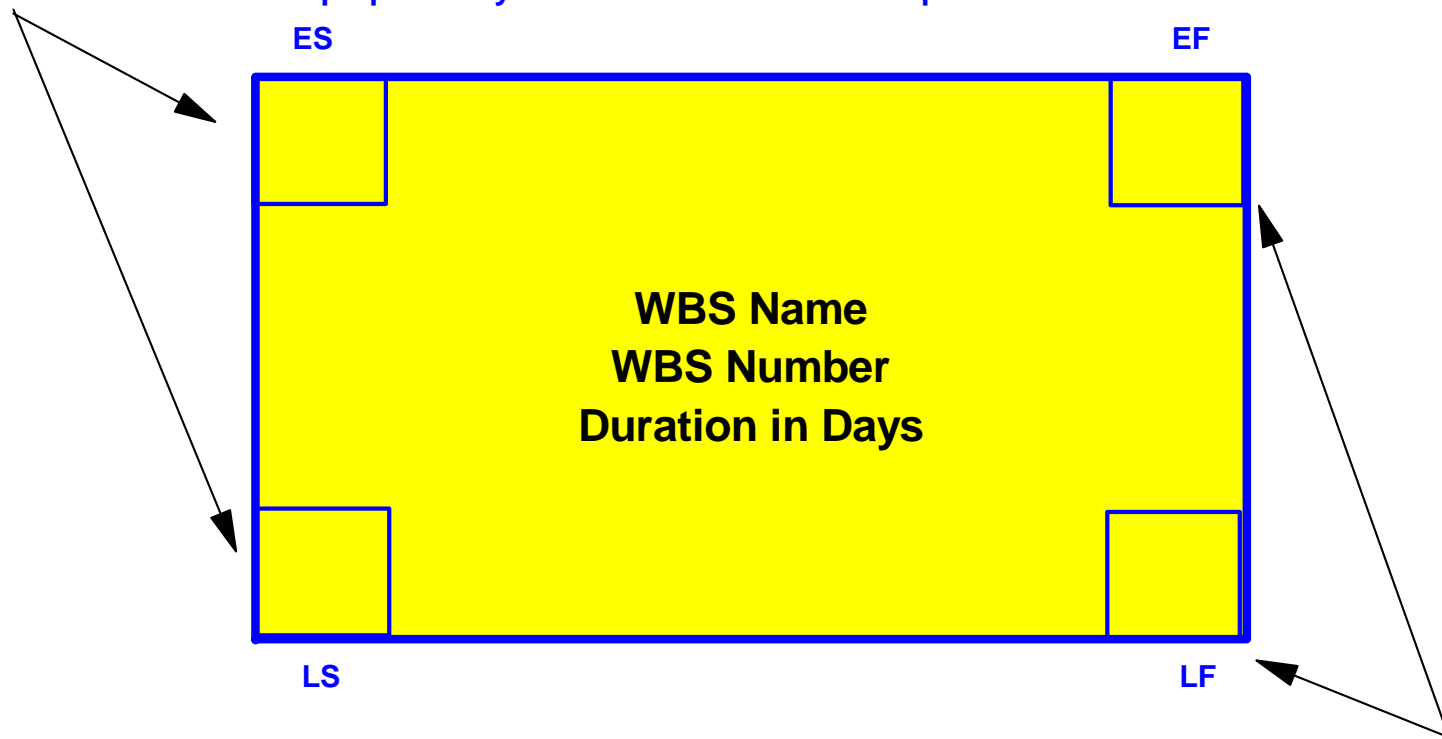5. Identify new risks and update the risk plan

Participation: Team led by the Project Manager

Product: Completed precedence diagram
Be prepared to present your answer to the class.

Conventions

Each Yellow Post-it (node) should contain:

Draw boxes in each corner to prepare for your Forward and Backward passes

ES   EF

WBS Name
WBS Number
Duration in Days

LS   LF

Draw boxes in each corner to prepare for your Forward and Backward passes

Debrief

Work and Schedule are Predictable

Work and schedule are predictable

Healthy Signs

- Everyone gives the same definition of finished

- Good evidence of control

- Slippage, when it happens, is predicted

Unhealthy Signs

- Can't describe what finished means

- Uncontrolled — poor plans, controls, tracking mechanisms

- Slippage comes as a surprise

---

1. **Project plan is accepted and maintained.**

2. **Interim and final milestone and deliverable acceptance criteria and roles are accepted.**

3. **Approach is appropriate, adequate, followed; resources have been scheduled.**

4. **There is confidence in progress report accuracy and estimates to complete.**

Seven Keys Assessment

Purpose: Practice reviewing the health of the project using the Seven Keys

Process: See the diagram.
- Record status
- Think about issues & actions

Participation: Teams led by Project Manager

Product: Status, issues, and actions for Work & Schedule, Risk, Scope, Stakeholders, Business Benefits, and Team

Time allowed 5 Minutes

Seven Keys Assessment Worksheet
- Red - Urgent - Corrective action required immediately.
- Yellow - Warning - corrective action required in the near term.
- Green - Stay the Course - no corrective action required.

Project Name: Interviewee: Date: Interviewer:

Key and Criteria	Noted Issues	Heads Up Display	Proposed Actions
Stakeholders are Committed	➤	Red Yellow Green	➤
Business Benefits are Being Realized	➤	Red Yellow Green	➤
Work and Schedule are Predictable	➤	Red Yellow Green	➤
Scope is Realistic and Managed	➤	Red Yellow Green	➤
Team is High Performing	➤	Red Yellow Green	➤
Risks are Being Mitigated	➤	Red Yellow Green	➤
Delivery Organization Benefits are Being Realized	➤	Red Yellow Green	➤

PM Feedback

After the case study exercise:

- The PM describes what went well
- The team describes what went well
- The PM describes what could have been better
- The team describes what could have been better
- Hand the feedback forms to the PM

- After providing the PM feedback.   Document your lessons learned on page 50 of the Learning Log.
  - This should include any changes that you plan to make in your daily work as a result of this exercise.