SOFTWARE ENGINEERING

CSE-3001

Lab Assesment-4

Slot: L59+60

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Critical Path Method (Exp-4)

Objective: For the following table of information,

1. Draw the network diagram

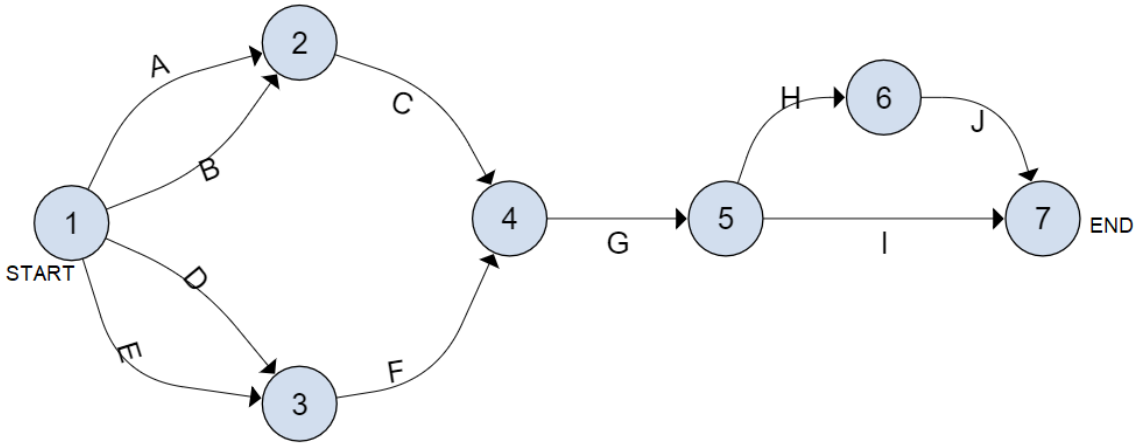
2. List the network paths

3. Determine the critical path(s)

4. Determine the float for each activity

Activity	Duration (in Days)	Dependency	Float
Start	0	--	
A	5	Start	2
B	2	Start	5
C	3	A, B	2
D	5	Start	1
E	6	Start	0
F	4	D, E	0
G	2	C, F	0
H	5	G	0
I	7	G	1
J	3	H	0
Finish	0	I, J	-

→Part 1: Network Diagram



→Part 2: Network Path:

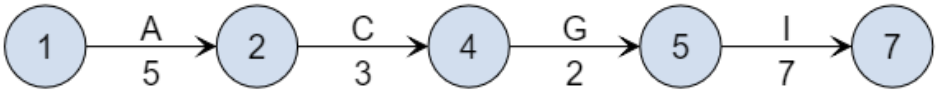
1.

Total Duration: 6 + 4 + 2 + 7 = 19 days

2.

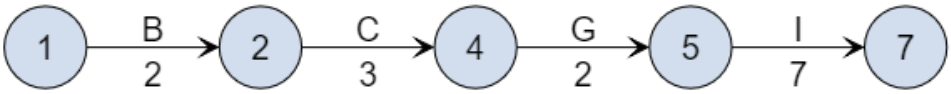
Total Duration: 5 + 4 + 2 + 7 = 18 days

3.



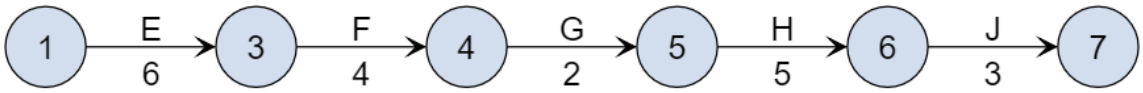
Total Duration: 5 + 3 + 2 + 7 = 17 days

4.



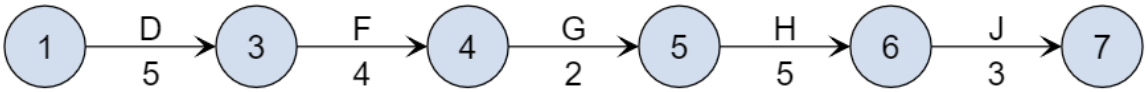
Total Duration: 2 + 3 + 2 + 7 = 14 days

5.



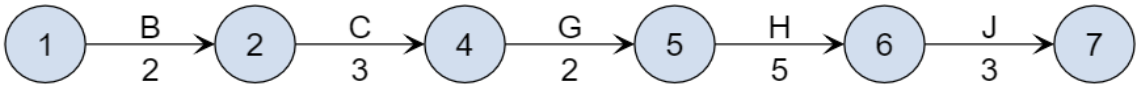
Total Duration: 6 + 4 + 2 + 5 + 3 = 20 days

6.



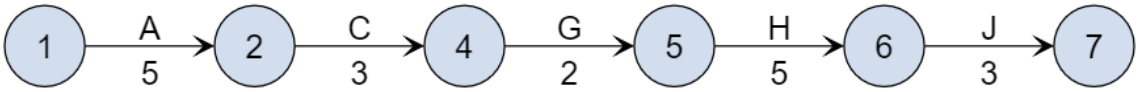
Total Duration: 5 + 4 + 2 + 5 + 3 = 19 days

7.



Total Duration: 2 + 3 + 2 + 5 + 3 = 15 days

8.

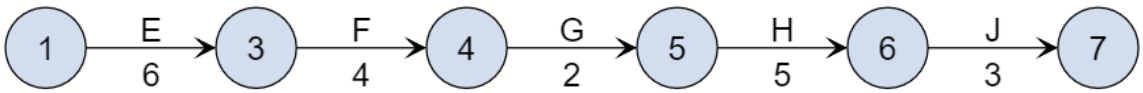


Total Duration: 5 + 3 + 2 + 5 + 3 = 18 days

→Part 3: Critical Path:

The critical path is the path which takes the maximum for the completion. Thus the critical path is path-5 with duration of 20 days.

The float/Slack time is 0.



→Part 4: Float for each Activity:

Total Float = Late Finish – Early Finish

Float (A) = LF-EF =7-5 = 2

Float (B) = LF-EF = 7-2=5

Float (C) = LF-EF = 8-10=2

Float (D) = LF-EF = 6-5=1

Float (E) = LF-EF = 6-6=0

Float (F) = LF-EF = 10-10=0

Float (G) = LF-EF = 12-12=0

Float (H) = LF-EF = 17-17=0

Float (I) = LF-EF = 20-19=1

Float (J) = LF-EF = 20-20=0

→Network diagram with EF, ES, LF, LS: