

Critical Path Method Exercises

Based on the PMBOK® Guide Fifth Edition

Course ID: PMTONDEMAND35 Contact Hours / PDUs: 35

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Practice Exercise

Critical Path Method

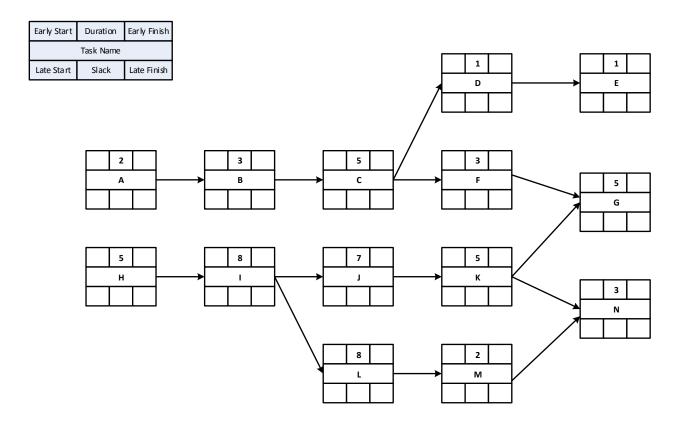
Exercise 1:

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	Dependency	Float
Start	0 days	-	
А	5 days	Start	
В	2 days	Start	
С	3 days	А, В	
D	5 days	Start	
Е	6 days	Start	
F	4 days	D, E	
G	2 days	C, F	
Н	5 days	G	
I	7 days	G	
J	3 days	Н	
Finish	0 days	I, J	

Exercise 2:



- 1. Perform a Forward Pass and a Backward Pass of the network diagram above
- 2. Which Activities has the same Early Finish as they have Late Finish?

Note: The project starts on Day "0"



Exercise 3:

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 (Days)	Dependency	Float
Start	0	-	
А	8	Start	
В	5	А	
С	6	В, Н	
D	8	С	
E	9	D, F	
F	3	С, І	
G	7	Start	
Н	8	G	
I	9	Н	
J	5	1	
К	2	J	
L	3	J	
Finish	0		

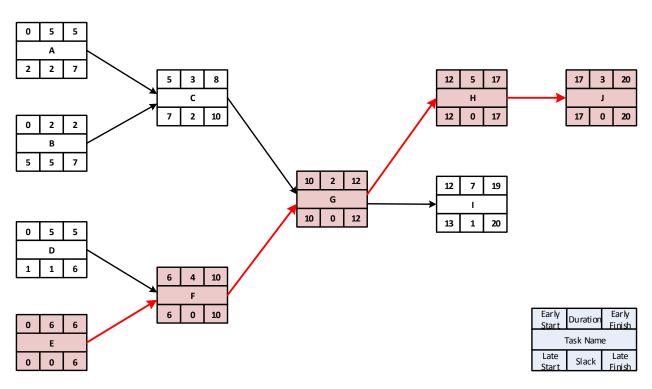


Critical	l Path	Method	Exercise	Sol	utions
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Exercise 1 Solution:

1.



2. Network paths:

- 1. A -> C -> G -> H -> J
- 2. A->C->G->I
- 3. **B->C->G->H->J**
- 4. B->C->G->I
- 5. **D->F->G->H->J**
- 6. **D->F->G->I**
- 7. E->F->G->H->J
- 8. E->F->G->I

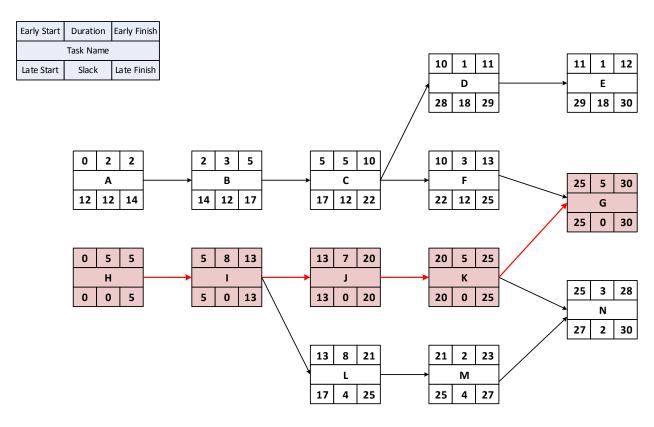
3. Critical path: E -> F -> G -> H -> J (shown in red)

4. Activity floats shown in the diagram



Exercise 2 Solution:

1.

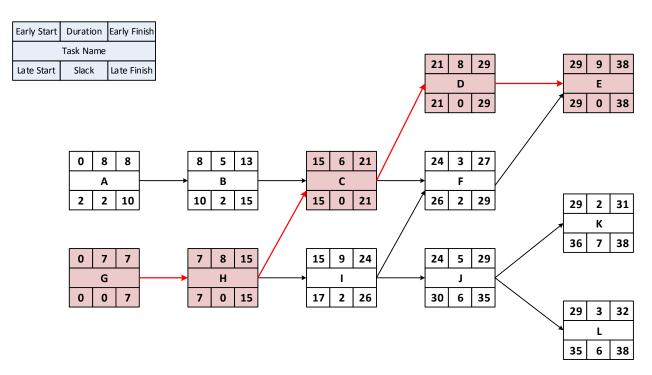


2. Any activity on the critical path will have Late Finish equal to its Early Finish



Exercise 3 Solution:

1.



2. Network paths:

- 1. A -> B -> C -> D -> E
- 2. A -> B -> C -> F -> E
- 3. **G**->**H**->**I**->**J**->**K**
- 4. **G**->**H**->**I**->**J**->**L**
- 5. **G->H->C->D->E**
- 6. **G** -> **H** -> **C** -> **F** -> **E**
- 7. **G**->**H**->**I**->**F**->**E**
- 3. Critical path: **G** -> **H** -> **C** -> **D** -> **E** (shown in red)
- 4. Activity Floats shown in the network diagram