e.g. for a given Project was estimated with a size of 300 KLOC. calculate the effort, scheduled Time for development by considering the developer having high application experience & very low experience in programming.
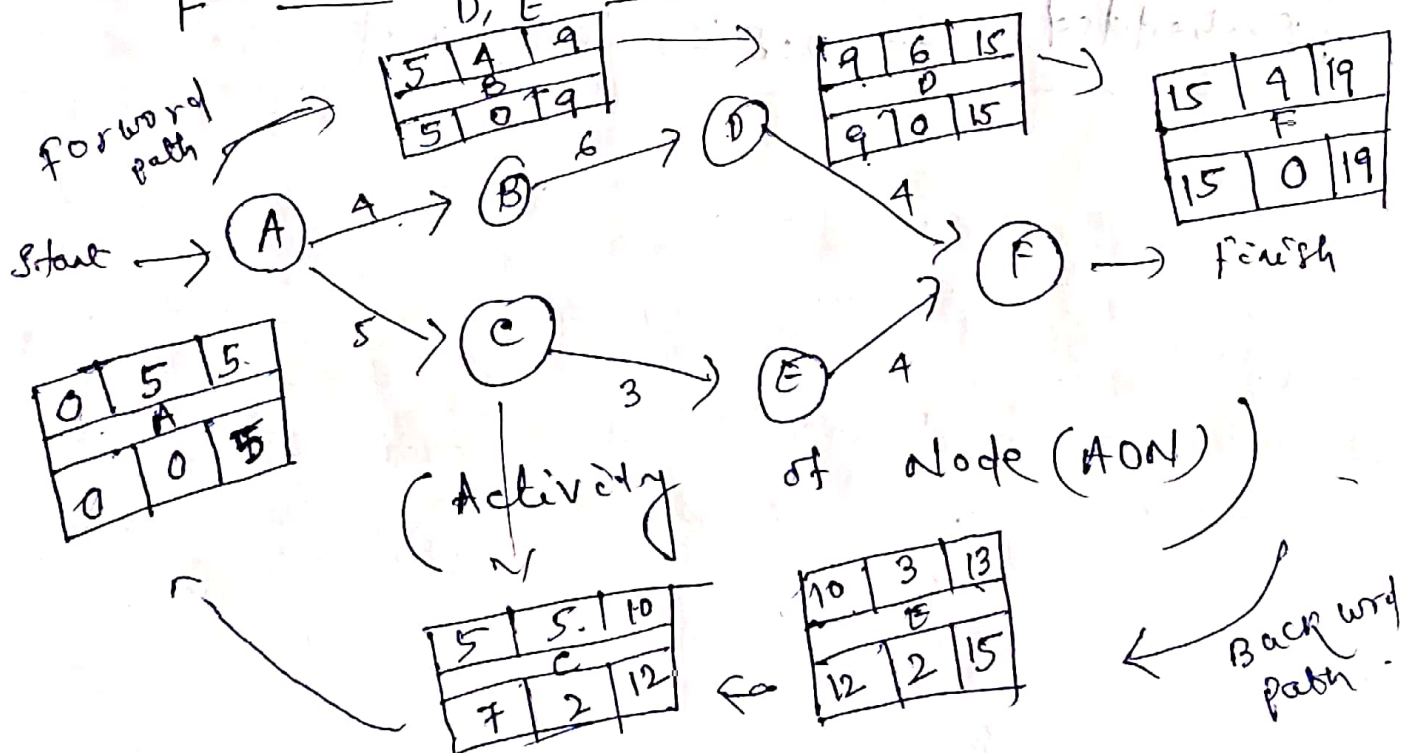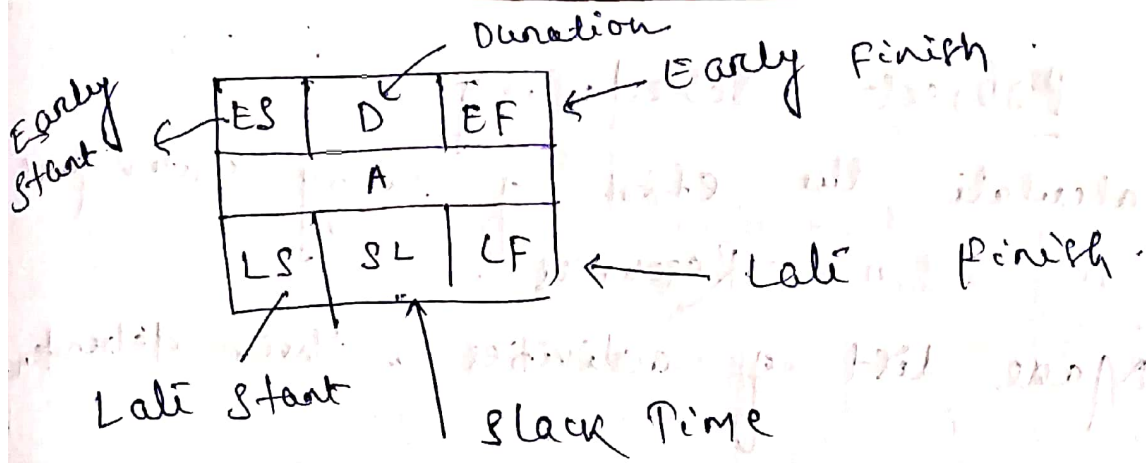
PERT CPM (Critical path Method)

Eg

Q) Do CPM Analysis & identify the critical path of project.

Activity	Predecessor	Duration (in Month)
A	—	5
B	A	4
C	A	5
D	B	6
E	C	3
F	D, E	4

forward path →

Start → (A) 4 → (B) 6 → (D) 4 → (F) → finish

(A) 5 → (C) 3 → (E) 4 → (F)

(Activity of Node (AON))

5	4	9
	B	
5	0	9

9	6	15
	D	
9	0	15

15	4	19
	F	
15	0	19

0	5	5
	A	
0	0	5

5	5	10
	C	
7	2	12

10	3	13
	E	
12	2	15

Backward path

Early Start →
Duration
Early Finish →

ES	D	EF
	A	
LS	SL	LF

Late Start ↗
Slack Time ↑
Late Finish ←

Step 1 — (i) calculate the Above for each node i.e. in forword path Calculate ES, D, EF & in Backword path Calculate LF, SL & LS.

Step 2 :-
$$SL = LF - EF$$
$$LS = LF - D$$

Find the Critical method

a) $A \to B \to D \to F = 14$ ✓
b) $A \to C \to E \to F = 12$

Critical path is the path when slack times are zeros. So. $A \to B \to D \to F$ is the critical path.