Design and Analysis of Algorithms

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Assignment: 3

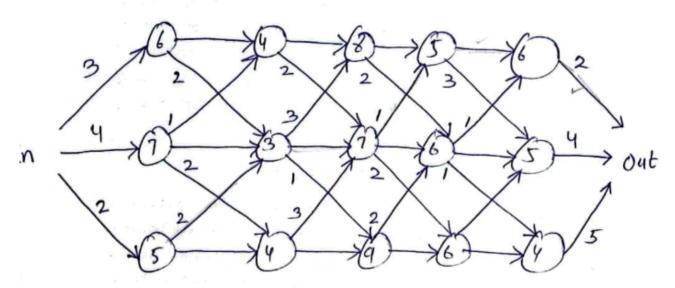
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Question: 01

Apply algnamic programming to find fastest way through factory.



Let say $F_{i}[j]$ for costs & $l_{i}[j]$ for lines $f^* = \text{overall cost } g$ $f^* = \text{final line}$ $f_{i}[j] = \begin{cases} e_{i} + a_{i,1} & \text{if } j \neq 1 \\ \min(f_{i}[j-1] + a_{i,j}, f_{i}[j-1] + t_{j,j-1} + a_{i,j-1} \end{cases}$ $+ a_{i,j}) \quad \text{if } j \geq 2$

	1	2	3	4	5	
fi[j]	9	13	21	25	31	
12[j]	()	12	19	25	30	en e la co
13 [j]	side et a cont	tava e programa en ala (den a	cabortes.	4TF W	no frequent con	
				· Labori		
l, [j]	1	1	1	2	1.	
l2 [j]	2	3	2	2	2/3	
le [i]	3	3	3			
$L^{*}=1$, $F^{*}=33$						
Estimated path:						
		(G)	(8)	(5)-	(6)	

