

Name: Priya Gupta

Assignment: hw4 Part - 2

15. 1.2))

let take a rod of length $n = 6$

and prices, $p_1 = 0$, $p_2 = 1$, $p_3 = 5$, $p_4 = 8$, $p_5 = 2$

according to the greedy algo it will take the height part first which is the p_4 .

Now $p_i/i = 8/6$ ratio. Now the left height is $6 - 4 = 2$

So, for the left 2 greedy will take p_2 . So the total profit is $8 + 1 = 9$

But the better solution is to take $p_3 + p_3 = 6$

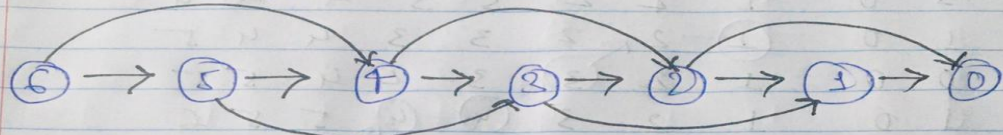
And profit is $5 + 5 = 10$

15 .1-5)) draw the subproblem graph for Fibonacci number.

Name - Ruiza Gupta
15.1-2

CWID - 10457442

Graph for fibonacci Number:-



this is the graph for $n=6$
Vertex:- So the number of vertex will be the instance of problem, for n vertex instance vertex will be $n+1$, eg:
here vertex are 7.

Edges:- $E_i \rightarrow E_j$ if and only if A invoked on i , and it makes recursive call on j .

15.4-1)) determine the LCS of $\langle 1,0,0,1,0,1,0,1 \rangle$ and $\langle 0,1,0,1,1,0,1,1,0 \rangle$

Name - Pooja Gupta

Assignment - 04 (Part 2)

		1	0	0	1	0	1	0	1
	0	0	0	0	0	0	0	0	0
0	0	0	1	1	1	1	1	1	1
1	0	1	1	1	2	2	2	2	2
0	0	1	2	2	2	3	3	3	3
1	0	1	2	2	3	3	4	4	4
1	0	1	2	2	3	3	4	4	5
0	0	1	2	3	3	4	4	5	5
1	0	1	2	3	4	4	5	5	6
1	0	1	2	3	4	4	5	5	6
0	0	1	2	3	4	5	5	6	6
		1			0	1		1	0

So the LCS is 10110