

Lab - 4

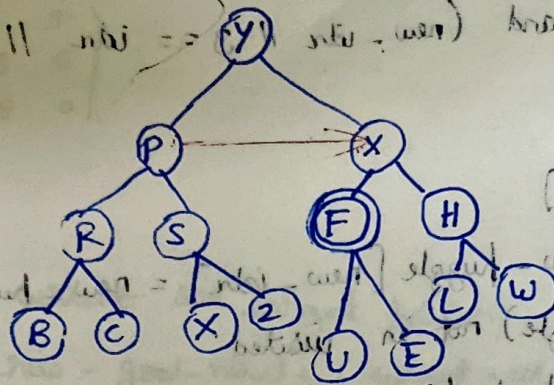
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$[(1, 0), (1, 0), (2, 1), (3, 1)]$ - answer

$[] = \text{stack} - \text{data}$

return n, low, sum of
sum + nlo = nlo - 1000

Iterative Deep Search -



Iteration 1 (depth 0): Y

$([\text{stack}] + \text{depth}) : Y \rightarrow P \rightarrow X$

$3 (2) X \rightarrow P \rightarrow \text{X} \rightarrow R \rightarrow S \rightarrow F$

last node

small number

Algorithm -

adj - matrix = $[]$

visited = $[]$

def dfs (root, depth, curDepth)

if (curDepth > depth)

return

elif (root == target):

return root

else: for i in adj - matrix [root]:

if adj - matrix [i] and visited [i]

visited [i] = 1

return dfs (i, depth, curDepth + 1)

if two paths are // : (last) path is job

20+

~~Proceed~~

5	1	0
2	5	8
3	2	1

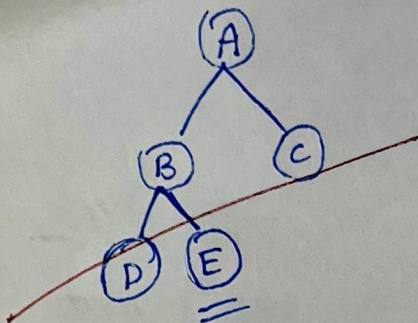
5	0	1
2	5	8
3	2	1

start? load

Code -

abstraction rat2-A

Output -



A

A → B → C

A → B → C

D → E

Target node e found

S:
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A* algorithm

1	2	3
8		4
7	6	5

Initial

2	3	1
	4	3
7	6	5

Goal State

Initial state

8	1	0
2	4	3
7	6	5

8	0	1
2	4	3
7	6	5

$$3+1=4$$

8	1	3
2	4	0
7	6	5

$$5+1=6$$

0	8	1
2	4	3
7	6	5

$$2+2=4$$

8	1	0
2	4	3
7	6	5

$$4+2=6$$

8	4	1
2	0	3
7	6	5

$$4+2=6$$

2	8	1
0	4	3
7	6	5

Final state

Proceed