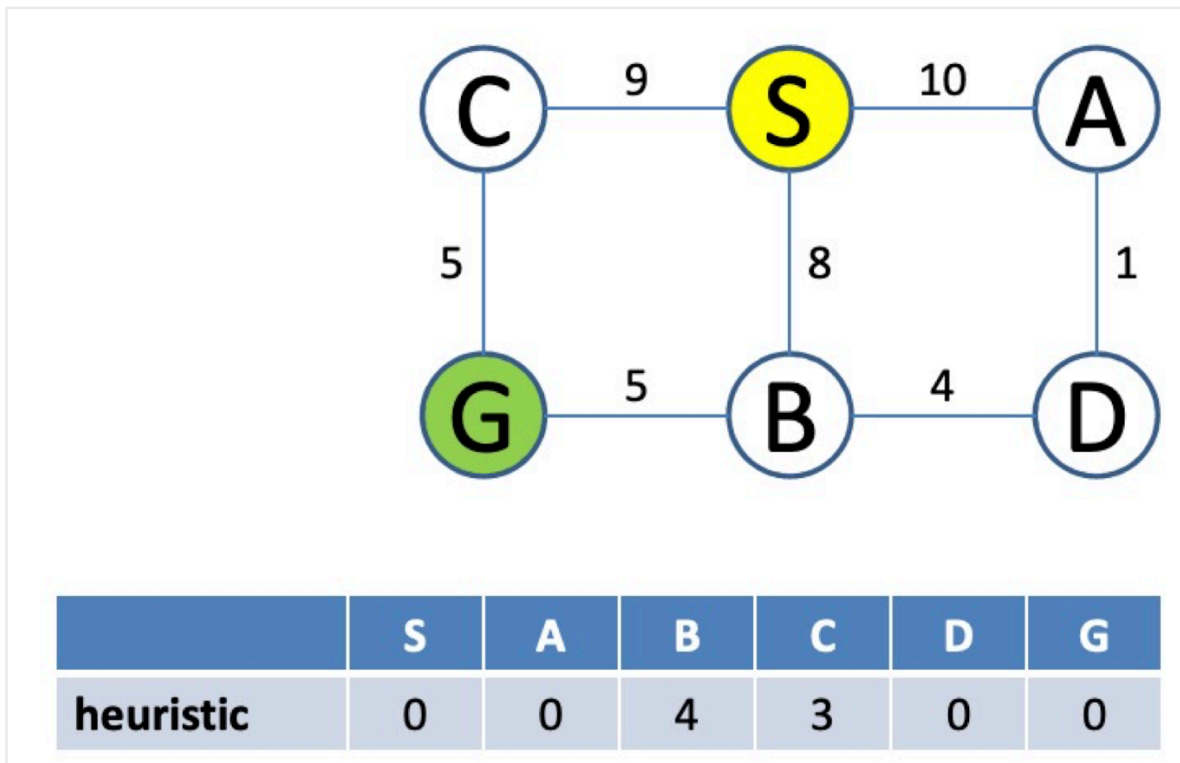


Chapter 3 - EXERCISES

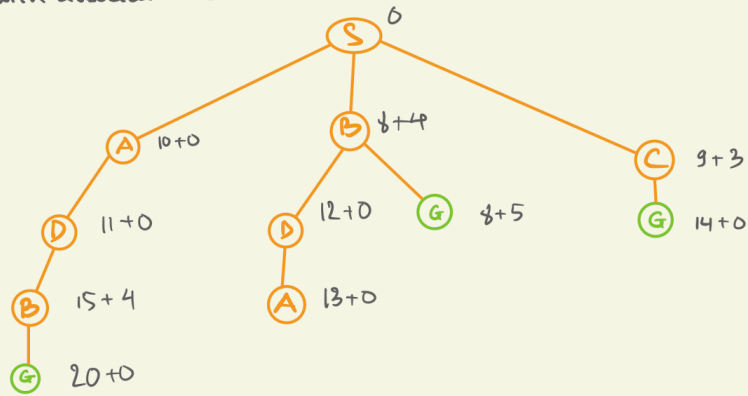
Hoang Long Vu - 20204897

Ex: Apply IDA* Search on the following graph

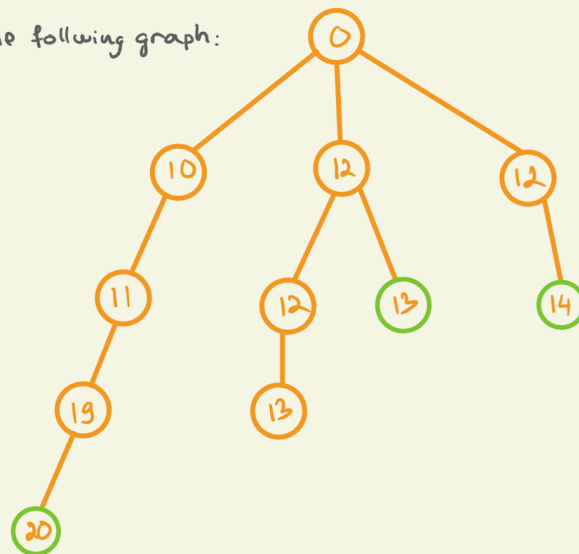


Answer: (Here I consider the problem is finished when the goal node is generated)

- Graph with associated cost:



⇒ We have the following graph:

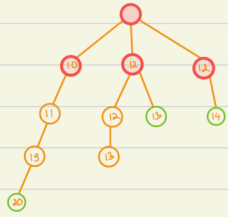


IDA* traversal:

Step	Threshold	Fringe	Path (Generated nodes)
1	0	10, 12	(S, 0), (A, 10), (B, 12), (C, 12)
2	10	11, 12	(S, 0), (A, 10), (D, 11), (B, 12), (C, 12)
3	11	19, 12	(S, 0), (A, 10), (D, 11), (B, 19), (B, 12), (C, 12)
4	12	19, 13	(S, 0), (A, 10), (D, 11), (B, 19), (B, 12), (D, 12), (A, 13), (G, 13)

→ SOLUTION FOUND IN THE 4-TH STEP

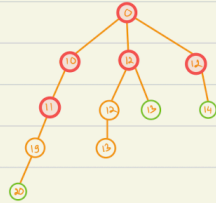
STEP 1:



THRESHOLD = 0

FRINGE: 10, 12

STEP 2:



THRESHOLD = 10

FRINGE: 11, 12

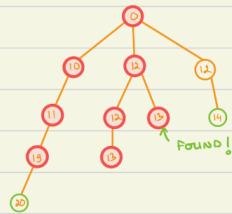
STEP 3:



THRESHOLD: 11

FRINGE: 19, 12

STEP 4:



THRESHOLD: 12

FRINGE: 19, 13