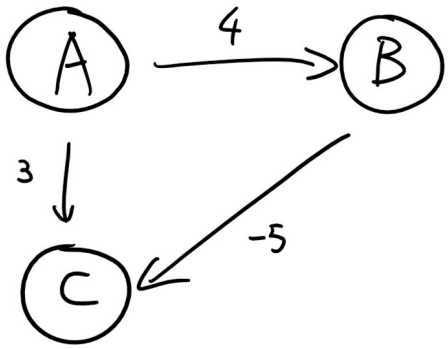
No, consider the following graph



Try using Dijkstra's Algorithm

Vertex	k	d	p
A	False	0	None
B	False	Infinity	None
C	False	Infinity	None

We will start from (A) and find the distance to (B) and (C)

Vertex	k	d	p
A	True	0	None
B	False	4	A
C	False	3	A

Then we mark k value for (C) to true, there is no outgoing edge in (C)

Vertex	k	d	p
A	True	0	None
B	False	4	A
C	True	3	A

Update k value for (B) and find its outgoing edges, however (C) is already marked true, we cannot update distance to (C)

Vertex	k	d	p
A	True	0	None
B	True	4	A
C	True	3	A

Here, the shortest distance from (A) to (C) is wrong, the actual shortest path is A->B->C with distance of 4 + (-5) = -1