→It is best known form of BFS.
→It avoids expanding paths that are already expensive but expands most promising path first.

$$f(n) = g(n) + h(n)$$

g(n)→ cost to reach the node
h(n)→ heuristic value
f(n)→ estimated total path to reach goal

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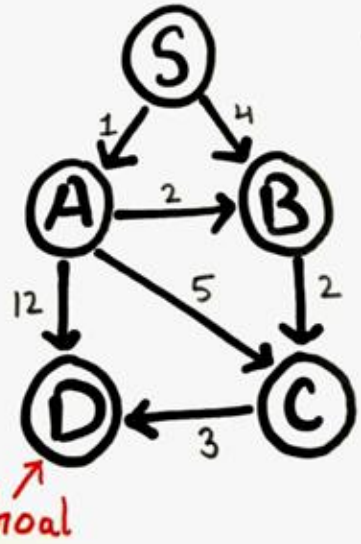

f(n)=g(n)+h(n)

for S,
0+7=7
S→A,
1+6=7
S→B,
4+2=6
S→B→C
6+1=7
S→A→B
3+2=5
S→A→C
6+1=7

S→A→D
13+0=13
(S→A→B)→C
5+1=6
(S→A→B→C→D)
8+0=8
(S→B→C)→D
9+0=9
(S→A→C)→D
9+0=9

Heuristic Value	
S	7
A	6
B	2
C	1
D	0

S→A=7 ✓
S→B=6 ✓
S→B→C=7 ✓
S→A→B=5 ✓
S→A→C=7 ✓
S→A→D=13
S→A→B→C→=6 ✓
S→A→B→C→D=8
S→B→C→D=9
S→A→C→D=9

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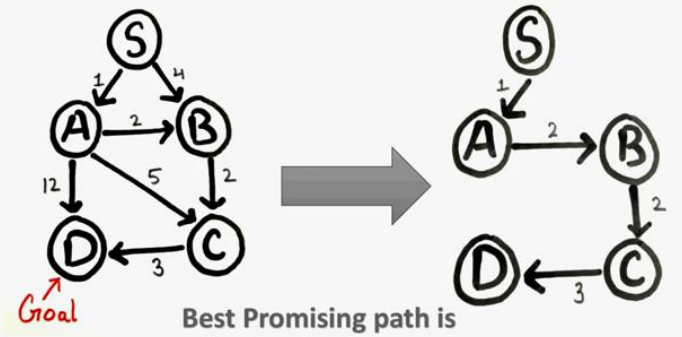

Best Promising path is
S→A→B→C→D

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