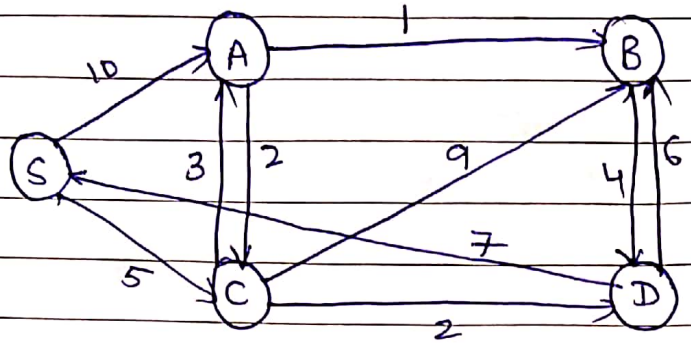
ADA Assignment

Abhishek.R
1BM19CS400

Apply dijkstra's algorithm to find shortest distance from the vertex 'S' for the graph attached.



Consider 's' is a source vertex

1. S(0,-) A(S,10) **C(S,5)** D(0,∞) B(-∞)
2. C(S,5) A(C,8) **D(C,7)** B(C,14)
3) D(C,7) **A(C,8)** B(D,13) S(D,14)
4) A(C,8) **B(A,9)** D(-∞)
5) B(A,9)

B(A,9) → A(C,8) → C(S,5) → S(0,1)

B → A → C → S

∴ Shortest paths are:- S → C → A → B = 9

S → C = 5

S → C → A = 8

S → C → D = 7