Find the quickest route for emeggency vehicle to reach their destination

9

→ ① Intialize

① Pick up the starting node (let assume its a A).

Step-1.
start a node A.
*) Distance to A : 0.
*) Neibhours : B (Weight 1), C (weight 3)
Update distance : B → 1 , C → 3.

Step-2: Move to node B (Smallest distance)
Distance to B : 1
Neibhours: C(w=1), B(w=5), G(w=2)
Update distance:
C-(1+1=2), D(1+5=6), G(1+2=3)
{C(2), D(6), G(3).}

Step-3: Move to node C.
Distance to C : 2.
Neibhour - E(w=9)
Update distance (9+2) E(11).

Step-4 : Move to node G (smallest distance)
Distance to G : 3
Neibhour: F (w=12)
update distance: F → 15 (3+12)

Step-5: Move to D.

Distance to D: 6.
Neibhour: E(w=3), F(w=2).
Update distance: E(6+3=9), F(6+2)=8.
E(9), F(8).

Step 6: Move to node F.

Distance to F: 8.

F is the final destination

The shortest path from A to F based on the algorithem is A → B → D → F with a total weight of 8.