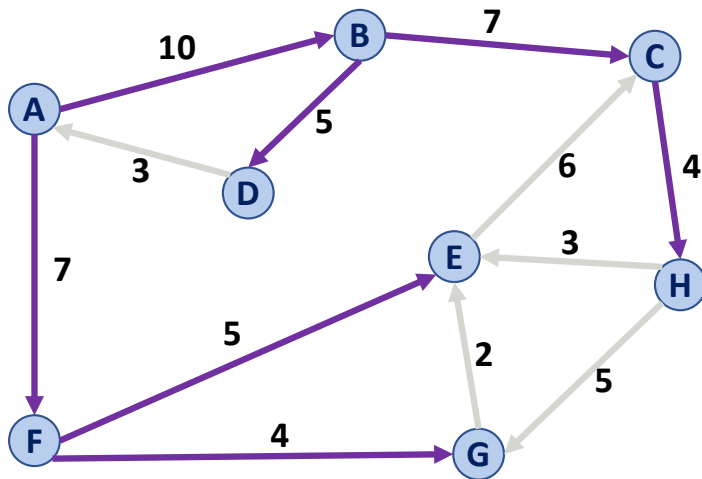


Dijkstra's Algorithm (SSSP)



```
DijkstraSSSP(G, s):
```

```
6  foreach (Vertex v : G):
7    d[v] = +inf
8    p[v] = NULL
9    d[s] = 0
10
11  PriorityQueue Q // min distance, defined by d[v]
12  Q.buildHeap(G.vertices())
13  Graph T          // "labeled set"
14
15  repeat n times:
16    Vertex u = Q.removeMin()
17    T.add(u)
18    foreach (Vertex v : neighbors of u not in T):
19      if cost(u, v) + d[u] < d[v]:
20        d[v] = cost(u, v) + d[u]
21        p[v] = u
```