Dijkstra's algorithm

For each vertex (or node) in a graph, Dijkstra's algorithm finds the shortest path from the source node to that vertex. Figure 1. shows a graph with vertices A - F and edges with distances of 10,15,12,1,2 and 5.
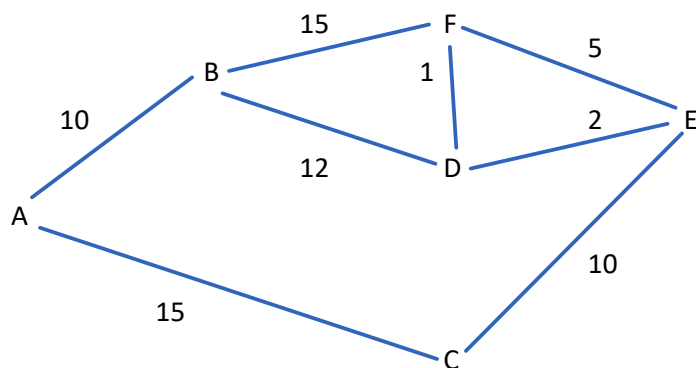

Figure 1. Graph in its initial state before the algorithm is applied.

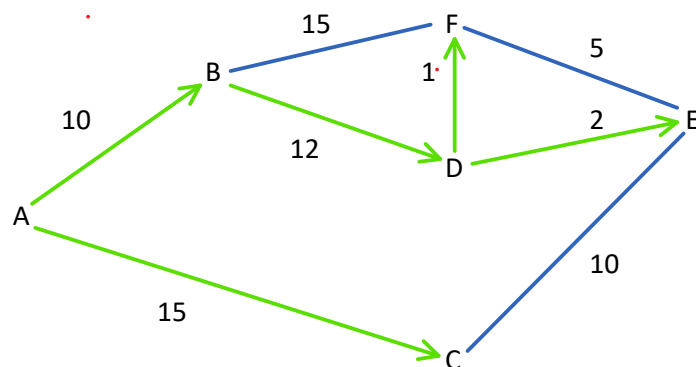When the algorithm is finished, the graph will show the shortest paths:

Figure 2. Graph with the shortest paths from A to all other vertices.