

# Dijkstra's Algorithm

**Formulate The Problem:** Dijkstra's Algorithm is an algorithm used to determine the shortest path between two nodes. In this algorithm we have a graph (G) which is a data structure for holding nodes or (V) vertices, and also has Edges (E). E's have a weight or cost associated with them (W). The source and destination are both nodes in the graph G. They are connected through a path of E's. Another way of looking at Dijkstra's Algorithm is as finding a path of V's where the sum E's W associated with those V's is the minimum possible.

## Pseudo Code:

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**Algorithm 1** Dijkstra

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1: **procedure** DIJKSTRA( $G, V_{Source}, V_{Destination}$ )

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