

### **Task Write Up** - “Pathfinding a graph”

Pathfinding a graph can be done using python code with dijkstra's algorithm .So the weights in this example are given by the numbers on the edges between nodes.We start off by constructing a graph.For each destination node that we visit, we note the possible next destinations and the total weight to visit that destination. If a destination is one we have seen before and the weight to visit is lower than it was previously, this new weight will take its place.We continue calculating until we get the lowest of all possible options.To run the code we give the input i.e

```
dijkstra(graph, 'X', 'Y')
```

The code outputs the shortest path taken to go from X to Y.

### **References -**

<https://benalexkeen.com/implementing-dijkstras-shortest-path-algorithm-with-python/>

<https://www.oreilly.com/library/view/graph-algorithms/9781492047674/ch04.html>

<https://www.geeksforgeeks.org/self-in-python-class/>

<https://www.youtube.com/watch?v=bZkzH5x0SKU>

