

Time Complexity

Dijkstras algorithm has a time complexity of $O(n^2)$

N is the number of vertices

There are two nested for loops – $n * n = n^2$, so $O(n^2)$

Space Complexity

Since the adjacency matrix is a 2D array, space complexity is $n * n$

Again, N is the number of vertices

Therefore space complexity is $O(n^2)$