**Time and Space Complexities of A\* algorithm:**

**A. Time Complexity:** It takes us to traverse all the edges in the graph to reach the destination node from the source node so the time complexity for A\* algorithm would be O(E) where E is the number of edges present in the given graph.

**B. Space Complexity:** In worst case open list (or) closed list stores all the vertices present in the graph so space complexity would be O(V) where V is the number of vertices present in the given graph**.**