



## **SoulShift - Educational Q&A Platform**

### **General Questions**

Practice Questions



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**Q1. What is the time complexity of Dijkstra's algorithm when using a binary heap?**

- A.  $O(V^2)$
- B.  $O(E \log V)$
- C.  $O(V \log V)$
- D.  $O(E + V)$

*Solution: When implemented with a binary heap, the time complexity of Dijkstra's algorithm is  $O(E \log V)$ , where  $E$  is the number of edges and  $V$  is the number of vertices.*

**Q2. In the context of Dijkstra's algorithm, what does 'relaxation' refer to?**

- A. Updating the distance of a node
- B. Removing a node from the graph
- C. Adding a new edge
- D. Sorting the nodes

*Solution: Relaxation refers to the process of updating the shortest known distance to a node if a shorter path is found.*



