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General Questions

Practice Questions

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.

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