SoulShift

SoulShift – Educational Q&A Platform

General Questions

Practice Questions

Q1. What is the time complexity of a depth-first search (DFS) on a graph?

A. O(V)
B. O(E)
C. O(V + E)
D. O(V * E)

Solution: DFS visits each vertex and edge once, leading to a time complexity of O(V + E), where V is vertices and E is edges.

Q2. What is the time complexity of quicksort in the average case?

A. O(n)
B. O(n log n)
C. O(n^2)
D. O(log n)

Solution: Quicksort has an average-case time complexity of O(n log n) due to the divide-and-conquer approach.