



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

## **General Questions**

Practice Questions



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**Q1. What is the average-case time complexity of quicksort?**

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

*Solution: The average-case time complexity of quicksort is  $O(n \log n)$  due to the divide-and-conquer approach.*

**Q2. What is the time complexity of searching for an element in a hash table?**

- A.  $O(1)$
- B.  $O(n)$
- C.  $O(\log n)$
- D.  $O(n \log n)$

*Solution: In an ideal hash table with no collisions, searching for an element can be done in constant time  $O(1)$ .*



