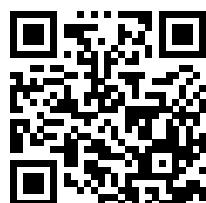




## **SoulShift - Educational Q&A Platform**

### **General Questions**

Practice Questions



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**Q1. Which property must a Red-Black Tree satisfy?**

- A. Every node is either red or black
- B. The root must be red
- C. All leaves must be red
- D. Every red node must have two black children

*Solution: In a Red-Black Tree, every node must be either red or black, which helps maintain balance.*

**Q2. What is the time complexity of performing a level-order traversal on a Red-Black Tree?**

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

*Solution: A level-order traversal of a Red-Black Tree visits each node once, resulting in a time complexity of  $O(n)$ .*



