SoulShift

# SoulShift – Educational Q&A Platform

## General Questions

Practice Questions

**Q1. Why is time complexity important in algorithm design?**

A. It determines the memory usage of an algorithm
B. It helps predict the performance of an algorithm
C. It defines the data structure to be used
D. It is irrelevant to real-world applications

*Solution: Time complexity is important as it helps predict the performance of an algorithm, especially with large inputs.*

**Q2. Why are Red-Black trees preferred in certain applications over AVL trees?**

A. They are simpler to implement
B. They guarantee faster search times
C. They require fewer rotations during insertions and deletions
D. They are more memory efficient

*Solution: Red-Black trees require fewer rotations during insertions and deletions, making them more efficient in scenarios with frequent updates.*

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