



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

### **General Questions**

Practice Questions



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**Q1. In the Longest Common Subsequence problem, what is the time complexity of the dynamic programming solution?**

- A.  $O(m + n)$
- B.  $O(m * n)$
- C.  $O(m^2 + n^2)$
- D.  $O(m^2 * n^2)$

*Solution: The time complexity of the dynamic programming solution for the Longest Common Subsequence problem is  $O(m * n)$ , where  $m$  and  $n$  are the lengths of the two sequences.*

**Q2. Which dynamic programming approach is used to solve the Coin Change problem?**

- A. Top-down
- B. Bottom-up
- C. Greedy
- D. Brute force

*Solution: The Coin Change problem can be solved using a bottom-up dynamic programming approach, where solutions to smaller subproblems are built up to solve larger problems.*



