Advance Data Structures and Algorithms Lab

Questions

1. Given a rod of length N inches and an array of prices, price[]. $price_i$ denotes the value of a piece of length i. Determine the maximum value obtainable by cutting up the rod and selling the pieces.

2. Given an integer array coins[ ] of size N representing different denominations of currency and an integer sum, find the number of ways you can make sum by using different combinations from coins[ ]. Note: Assume that you have an infinite supply of each type of coin.

3. Given a String, find the longest palindromic subsequence.

   Example 1:
   Input:
   S = "bbabcbcab"
   Output: 7
   Explanation: Subsequence "babcbab" is the longest subsequence which is also a palindrome.

4. Given a string s and a dictionary of strings wordDict, return true if s can be segmented into a space-separated sequence of one or more dictionary words.
   Note that the same word in the dictionary may be reused multiple times in the segmentation.
   Example 1:
   Input**:** s = "leetcode", wordDict = ["leet","code"]
   Output**:** true
   Explanation**:** Return true because "leetcode" can be segmented as "leet code".