UCS415 – Design and Analysis of Algorithms

Lab Assignment 3

Write a program to implement the following using dynamic programming approach:

- Longest Common Subsequence
  https://www.geeksforgeeks.org/longest-common-subsequence-dp-4/
- Matrix Chain Multiplication
  https://www.geeksforgeeks.org/matrix-chain-multiplication-dp-8/
- 0/1 Knapsack Problem
  https://www.geeksforgeeks.org/0-1-knapsack-problem-dp-10/
- Optimal Binary Search Tree
  https://www.geeksforgeeks.org/optimal-binary-search-tree-dp-24/
- Coin Exchange Problem

  https://www.geeksforgeeks.org/understanding-the-coin-change-problem-with-dynamic-programming/

Additional Questions:

- **https://www.geeksforgeeks.org/travelling-salesman-problem-using-dynamic-programming/**
- **https://www.geeksforgeeks.org/cutting-a-rod-dp-13/**
- **https://www.geeksforgeeks.org/weighted-job-scheduling/**