Assignment 3
279/377
Spring 2021

Following are some questions in leetcode.com. For each of the following question, answer the following questions:

a. Analyze subproblem structure and give the recursive relationship between problem and its subproblems

b. Does this problem have optimal substructure property? Explain the reason

c. Does this problem have overlapping subproblems? Explain.

d. Design and implement a DP algorithm and create a successful submission in leetcode.com (use your favorite language)

e. If you are using bottom up algorithm, then use give a concrete example to fill a bottom up tabular form.

Question 1 (leetcode question 322. Coin Change)
(might use the idea of Rod Cutting problem)

Question 2 (leetcode question 64. Minimum Path Sum).

Question3 (leedcode 5, Longest Palindromic Substring)

Question 4 (leedcode question 416. Partition Equal Subset Sum).

Question 5 (leedcode question 55. Jump Game)