Homework Assignment 12

Due Date: Wednesday, April 28, 2021 at 11:59 pm

Total Points: 15 pts

The purpose of this assignment to give you the opportunity to practice and apply the knowledge gained from today's class to solve real problems. This ultimately will allow you to learn how to write a recursive python program 😊

Please follow the instructions below to complete your assignment task:

1. Make sure you already have both python 3.5 + and/ or any IDE of your choice installed on your computer. If not, please refer to today's lecture slide and follow the instructions in url link on slide to download and install the software.
    a. Consider a list which contains integers that are not sorted, write a program using recursive approach to find a trio that contains a given sum.
    For example,
    Input:
    numSet = [3, 7, 4, 0, 9, 5, 1, 2]
    sum = 7

    Output: Trio exists
    The trio which contains the given sum are {0, 2, 5}, {0, 3, 4}, {1, 2, 4}
    Note: if trio does not exist for a given sum, it should output: Trio does not exist
    b. Consider a given number ***k***, write a program using ***recursive*** approach to display all probable non-increasing sequences with sum equals to ***k***

    Examples:

```
Input: x = 4

Output: 1 1 1 1
        2 1 1
        2 2
        3 1
        4
```

    c. Take screenshots of the results displayed for your programs in (a) and (b)above. Submit the screenshot along with your saved program files in a zipped folder.