from itertools import combinations

import re

import csv

import sys

import os

import math

# Variables

flag = 0

target\_amt = 0

data\_dict={}

temp\_lt =[]

def dish\_names(lt, data\_dict):

"""

This function will print items with names and cost

lt : list of combination of dish

data\_dict : dictionary which is formed from csv file

"""

for element in lt:

for key, val in data\_dict.items():

if val == element:

print(key +" : "+str(val))

print("-" \* 25)

# Validate csv file passed

try:

if os.path.isfile(sys.argv[1]) and str(sys.argv[1]).endswith('csv'):

print(sys.argv[1])

flag = True

else:

print("\n%s is not a valid file Path\n" % sys.argv[1])

flag = False

except:

print("""\nPlease pass the input file name path as Argument

\nUsage\t--help\n%s <input file path>

""" % sys.argv[0])

flag = False

if flag:

# open and read csv file

with open(sys.argv[1], 'r') as datafile:

csv\_reader = csv.reader(datafile)

for row in csv\_reader:

row\_st = ''.join(row[0:2])

#read target price

if re.match('Target', row\_st):

target\_amt = row[1]

target\_amt = round(float(target\_amt.replace('$','').strip()),2)

print("\nTarget Price : $%f" % target\_amt)

# read all the values

elif row[0] and row[1]:

data\_dict[row[0].strip()] = round(float(row[1].replace('$','').strip()),2)

temp\_lt.append(data\_dict[row[0].strip()])

#iterate all the combinations and find which one is having the sum value equal to target price.

ft = [val for i in range(1,len(temp\_lt)) for val in combinations(temp\_lt,i) if round(sum(val),2) == target\_amt]

if ft:

for lt in ft:

print("\nPossible cominations is/are : "+ str(len(ft))+"\n"+'-'\*25)

dish\_names(lt, data\_dict) #print all the combinations

else:

print("There is no combination of dishes that is equal to the target price")

else:

print("calling exit()")

exit()