

```

# -*- coding: utf-8 -*-
"""
Created on Wed Nov  4 14:35:18 2020

@author: StoneHayden
"""

#Homework 11 Q15.2 (also yay for getting to use Python and Pandas and not r)

#startup stuff
import
from      import
import      as

#let's readin our excel data

        "diet.xls"        0

#take the relevant parts of the dataframe
        0 64
#let's make our dataframe a list for easy manipulation

#we can get df columns here
        list

#assign variables for our min/max nutrient need
        65 66
        66 67

#we need to get our different foods and how much they cost
        0 for in
        dict      0 float      1      for in

#loop through nutrients per food item

for in range 0 11
        dict      0 float      +3      for in

#minimizing food cost
        'Food optimization'

# pick our food and we can't ahve negative foods
        "Foods"        0
        "food_select"        0 1

#creata func for total cost of our foods
        for in

#add in constraints for food given to us in the HW description....

```

```

for i in range(0, 11): # for loop running through each nutrient: 11 times starting with 0
    for j in range(0, 11):
        for k in range(0, 11):
            # This is our 1/10 serving constraint
            for l in range(0, 11):
                # this is our yes/no food eaten
                for m in range(0, 11):
                    # Constraint for one of broccoli or celery
                    # 'Frozen Broccoli'
                    # 'Celery, Raw'
                    # 1

# this is our protein constraint with 3 of the protein types necessary
    'Roasted Chicken'
    'Scrambled Eggs'
    'Frankfurter, Beef'
    'Kielbasa, Prk'
    'Hamburger W/Toppings'
    'Hotdog, Plain'
    'Sardines in Oil'
    'Chicknoodl Soup'
    'Vegetbeef Soup'
    'New E Clamchwd, W/MLk'
    'Poached Eggs'
    'Bologna, Turkey'
    'Ham, Sliced, Extra Lean'
    'Pizza W/Pepperoni'
    'Pork'
    'White Tuna in Water'
    'Splt Pea&Hamsoup'
    'Neweng Clamchwd'
    'Beanbacn Soup, W/Watr'
    # 3

# now we need to solve our problem to get what will cost the least

# show our answers
print

for i in range(0, 11):
    if i and "food_select" not in list_of_foods:
        print str(i) + " of " + str(foods[i]) + " Foods_" + str(i)
print
print "The food cost is " + str(cost)
print "Yum??"
print

```