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'''
Program Name:dominguez_program6.py
Program Description:This program squares a list of numbers and returns the sum of the list and squared
list
Author:Daniel Dominguez
Date Created:6/23/19
Notes of Interest:none
'''

import time
import random
import math
nums=[]
squaredList=[]
#Function to print the class signature
def classSignature():
    print("-----")
    print("Daniel Dominguez")
    print("CIS110 Program 6")
    print(time.asctime(time.localtime(time.time())))

#Function to sum a list
def sumList(nums):
    sum=0
    for i in nums:
        sum=sum+i
    return sum

#Function to square a list of numbers
def squareEach(nums):
    for i in nums:
        squaredList.append(i*i)
    return squaredList

#Main Function

def main():
    #Introduction and Input
    print("This program squares a list of numbers and returns the sum of the list and squared list\n")
    userNumbers=str(input("Enter number or numbers:"))

    #Splits the list of numbers by commas and appends to a list called "nums"
    for i in userNumbers.split(","):
        nums.append(int(i))

    print()#Original input and sum of the original input
    print("You entered: ",nums)
    print("The sum of the original list of numbers is: ", sumList(nums))
    print()#Squared input and sum of squared list.
    print("Your list squared is:",squareEach(nums))
    print("The sum of the squared list of numbers is: ", sumList(squaredList))
    classSignature()

main()
```

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dan@dan-Alienware-m15:~/Documents/School/CIS110/Projects/Wk6$ python3 dominguez_Program6.py
This program squares a list of numbers and returns the sum of the list and squared list

Enter number or numbers:1,2,3,4,5,6,7,8

You entered:  [1, 2, 3, 4, 5, 6, 7, 8]
The sum of the original list of numbers is:  36

Your list squared is: [1, 4, 9, 16, 25, 36, 49, 64]
The sum of the squared list of numbers is:  204
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Daniel Dominguez
CIS110 Program 6
Sun Jun 23 18:25:54 2019
dan@dan-Alienware-m15:~/Documents/School/CIS110/Projects/Wk6$
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