实验一习题解答

1.

def Sum():

sum = 0

for i in range (1,101):

sum += i

print (sum)

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Sum()

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2.

def Print\_odd():

for i in range(1,101):

if i%2 != 0:

print (i)

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Print\_odd()

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3.

def Print\_str():

for i in range(11):

print(chr(0x2605),end="")

print ("\n"+chr(0x2605)+"我喜欢数据科学导论"+chr(0x2605))

for i in range(11):

print(chr(0x2605),end="")

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Print\_str()

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4.

def Cuberoot(n):

c = n

g = c/3

i = 0

while abs(g\*g\*g - c) > 0.000000000001:

g = (2\*g + c/(g\*g))/3

i = i + 1

print ("%d:%.13f" %(i,g))

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Cuberoot(8)

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5.

def Sort\_min2max():

print ("输入三个数字：")

array = list(map(int, input().split()))

for i in range(len(array)-1):

min = i

for j in range(i+1, len(array)):

if array[j] < array[min]:

min = j

array[i], array[min] = array[min], array[i]

print (array)

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Sort\_min2max()

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def Sort\_max2min():

print ("输入四个数字：")

array = list(map(int,input().split()))

for i in range(len(array)-1):

max = i

for j in range(i+1, len(array)):

if array[j] > array[max]:

max = j

array[i], array[max] = array[max], array[i]

print (array)

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Sort\_max2min()

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7.

'''

逐行读取文本，并删除每行中的多余字符（如标点等）。

将每一行分割为单个单词后，在字典中统计单词出现的次数。

最后根据字典的value值进行排序

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def Statistic(file):

f = open(file) #打开文件

dictionary = {} #创建一个空字典

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for line in f.readlines():

if len(line)>10:

#print(type(line))

mark =[',','.',':','\'s',';','?','(',')'] # 删除文本中的标点符号

for m in mark:

line = line.replace(m,'')

#print (line)

lineattr = line.strip().split(" ")

for char in lineattr:

if char not in dictionary:

dictionary[char]=1

else :

dictionary[char]+=1

#print (dictionary)

a = sorted(dictionary.items(),key = lambda x:x[1],reverse = True) # 按照字典value值大小进行排序

#print (a1)

return a

'''

输出文本中前n个最常出现的单词

file: 文本的路径

n : 输入出单词的个数

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def printWords(file,n):

a = Statistic(file)

for i in range(n):

print (a[i])

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printWords("shakespeare.txt",20)