Question1

Use python lists and make a list of numbers.

Write a function which returns sum of the list of numbers

Answer:

items = []

sum = 0;

n = int(input("Enter value of number of elements: "))

print("enter elements of list: ")

for i in range(n):

ele = int(input())

items.append(ele)

for i in range(n):

sum += items[i]

print("sum of list elements = ", sum)

# Question2

Setup a dict structure like this in python

Dict1: (this is a key, value pair of user id and username)

{

“1” : “name1”,

“2” : “name2”,

“3” : “name3”

} etc..

Dict2: (this is a key value pair of user id and exam score)

{

“1” : 50,

“2” : 60

“3” : 70

}

These are just sample data assume there are hundreds of users

Write a function in python in python, which will return maximum i.e function should return dictionary like

{

“3” : 70

}

**Answer:**

n = int(input("enter a n value:"))

names = {}

scores = {}

#this for loop used to input first dictionary with user id and name

for i in range(n):

keys = input()

values = input()

names[keys] = values

#this for loop used to input second dictionary with user id and score

for i in range(n):

keys = input()

values = input()

scores[keys] = values

#printing both dictionaries

print(names)

print(scores)

#this function is used to retrieve max score and printing that in dictioanry format

def max\_val():

max\_key = max(scores, key = scores.get)

all\_values = scores.values()

mx = max(all\_values)

d ={max\_key : int(mx)}

print(d)

max\_val()

# Question 3

Assume we have list like this

[0,0,0,1,1,1,0,0,0,1,1,0,1,1,1,1,0,0,1,1]

Basically a list of zero’s and one’s.

Write a python function to the number of maximum consecutive one’s present in the array.

E.g output for the above array would be 4

Answer

‘’’We start traversing the array from left to right. If we see a 1, we increment the count and compare it with the maximum so far. If we see a 0, we reset count as 0.’’’

items = [0,0,0,1,1,1,0,0,0,1,1,0,1,1,1,1,0,0,1,1]

def getMax(items, n):

cnt = 0

max\_so\_far = 0;

for i in range(n):

#if we found zero we have to reset count variable

if (items[i] == 0):

cnt = 0

else:

# increase count

cnt += 1

#storing result and comparing current and max\_so\_far

max\_so\_far = max(max\_so\_far, cnt)

return max\_so\_far

print(getMax(items,len(items)))

Question4

I didn’t get it properly so I was not able to solve it.