Phonebook

def min(x, y):

if (x < y):

return x

else:

return y

def fibSearch (arr, x, n):

f2 = 0

f1 = 1

fibM = f2+ f1 # fibM = 1

while (fibM<n): # n=11 1<11 yes | 13<11 no

f2 = f1 # 1 1 235

f1 = fibM # 1 2 3 5 8

fibM= f2 f1 # 2 3 5 8 13

offset=-1 # offset=-1

while (fibM> 1): # 13 >1 | 8>113>112>1

i = min(offset f2, n = 1) #-1+5 =4,1050 1=417,1815, 1816, 18

if (arr[1][0]<x): # arr[4]<881e45<80y182<80N158<80y188<80

fibM= f1 # 8 |

f1=f2 #5 | 1

f2=fibM-f1 # 8-5 = 3 f2=3 12-1=1

offset = 1 # offset 415

elif (arr[i][0]> x): # 82>80y180>80N # cut the subarray after 1+1

fibM= f2 #3

f1 = fl-f2 # 5-3-2

f2=fibM-f1 # 3-2-1 -

else: # element found return index \*/

return 1 # 6

if (f1 and arr[offset + 1][0] == x): # /\* comparing the last element with x \*/

return offset + 1

return -1 # /\*element not found. return -1 \*/

def insert(phbk, x1):

c = [x1]

mob = int(input("Enter mobile number of your friend: "))

c.append(mob)

print(c)

phbk.append(c)

print (phbk)

print("but for Binary and Fibonnaci search record must be in sorted order in phonebook")

sort(phbk)

def sort(phbk):

for in range(len(phbk)):

# repeating loop len(a) (number of elements) number of times

#initially swapped is false

swapped False

i=0

while i < len(phbk) - 1:

# comparing the adjacent element

if phbk[i][0]> phbk[i+1][0]:

# swapping

phbk[1], phbk[i + 1] = phbk[i + 1], phbk[1]

#Changing the value of swapped

swapped = True

i=i+1

# if swapped is false then the list is sorted

# we can stop the loop

if swapped == False:

break

print("\*\* after Sorting the data in phonebook...\*\*")

print(phbk)

print("Fibbonacci Search Method: ", end="\n")

#Test array

phbk [["amol", 1234567892], ["bavesh", 2132654522], ["chetan", 9923511212], ["gheerai", 9823463224], ["eravati", 8538778714]]

n = len(phbk)

print("The element inside phone book are as follows", end="\n")

for i in range(n):

print(phbk[1])

print()

print("To elements present in phonebook are:", n)

x= input("Enter friend name u want to search: ")

x1 = x.lower() # user flexiblity in case user enter in capital form

print(x1)

# Function call

# print("Roll no found at index:: ", fibSearch (arr, x, n))

result= fibSearch (phbk, x1, n)

if result != -1:

print("Element is present at index", str(result))

else:

print(x1, is not present in phonebook")

print("Record", x1, "is now inserted in phonebook -")

insert(phbk, x1)

print("Record", x1,"added successfully in phone book....")

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