from ast import If

MAX = 100

class Node:

def \_\_init\_\_(this, data, next):

this.data = data

this.next = None

def insert(head, x):

if (head == None):

head = Node(x, None)

return head

temp = head

while (temp.next != None):

temp = temp.next

temp.next = Node(x , None)

return head

def display(head):

temp = head

while (temp.next != None):

print(temp.data, end="-->")

temp = temp.next

print(temp.data)

class HashTable:

ht = []

def \_\_init\_\_(this):

for i in range(MAX):

dummy = Node([-1,-1], None)

this.ht.append(dummy)

def hash(this, name):

sum = 0

for i in name:

sum += ord(i)

return sum % MAX

def insert(this, name, phone\_number):

record = [name, phone\_number]

index = this.hash(name)

node = this.ht[index]

insert(node, record)

def display(this):

for i in range(MAX):

if (this.ht[i].next == None):

continue

node = this.ht[i].next

while (node != None):

print("[" , node.data[0] , "," , node.data[1] , "]", end="-->")

node = node.next

print()

def find(this, name):

index = this.hash(name)

node = this.ht[index]

if (node.next == None):

print("Record is not present in the dictionary!")

else:

flag = False

while (node != None):

if (node.data[0] == name):

flag = True

print("Record found!")

print("Phone number is", node.data[1])

node = node.next

if (flag == False):

print("Record not found!")

def delete(this, name):

index = this.hash(name)

if (this.ht[index].next == None):

print("Record to be deleted is not present in the dictionary")

else:

node = this.ht[index]

while (node.next.data[0] != name):

node = node.next

node.next = node.next.next

ht = HashTable()

a=1

while(a != 0):

print("\n\n1)Insert\n2)Display\n3)Find\n4)Dlete\n5)Exit")

c = int(input())

if c == 1:

print("Enter the name :")

nm = input()

print("Enter the no. :")

numb = int(input())

ht.insert(nm,numb)

if c ==2:

ht.display()

if c == 3:

print("Enter the name you want to find :")

nm = input()

ht.find(nm)

if c == 4:

print("Enter the name you wan to delete :")

nm = input()

ht.delete(nm)

if c == 5:

a =0