**COMPUTE n+nn+nnn**

**AIM:**

Accept an integer n and compute n+nn+nnn

**ALGORITHM:**

1. Input an integer.
2. compute n+nn+nnn.
3. Print integer.

**SOURCE CODE:**

n = int(input("ENTER THE VALUE OF 'n':"))

print("n + nn + nnn =",n + (n\*n) + (n\*n\*n))

**OUTPUT:**

ENTER THE VALUE OF 'n': 5

n + nn + nnn = 155

**RESULT:**

Program ran successfully and output is verified.

**PRINT COLORS FROM COLOR LIST**

**AIM:**

Print out all colors from color-list1 not contained in color-list2

**ALGORITHM:**

1. Input 2 list of colors.
2. Print out all colors from list1 not in list2.

**SOURCE CODE:**

clist1 = set()

clist2 = set()

n1 = int(input("Enter the number of colors in List1:"))

print("Enter the colors to LIST1:")

for x in range(n1):

color = input()

clist1.add(color)

n2 = int(input("Enter the number of colors in List2:"))

print("Enter the colors to LIST2:")

for x in range(n2):

color = input()

clist2.add(color)

diff = clist1.difference(clist2)

print("COLORS IN LIST1 NOT IN LIST2: ",diff)

**OUTPUT:**

Enter the number of colors in List1: 3

Enter the colors to LIST1: Red Blue Green

Enter the number of colors in List2: 2

Enter the colors to LIST2: Red Green

COLORS IN LIST1 NOT IN LIST2: Blue

**RESULT:**

Program ran successfully and output is verified.

**SWAPPING THE CHARACTER AT POINTER**

**AIM:**

Create a single string separated with space from two strings by swapping the character at position 1

**ALGORITHM:**

1. Input 2 strings.
2. Swap two strings.
3. print swapped string

**SOURCE CODE:**

string1=input("Enter first string :")

string2=input("Enter second string :")

stringn=string2[0]+string1[1:]+" "+string1[0]+string2[1:]

print (stringn)

**OUTPUT:**

Enter first string: Hello

Enter second string: World

Wello Horld

**RESULT:**

Program ran successfully and output is verified.

**SORTING DICTIONARY**

**AIM:**

Sort dictionary in ascending and descending order.

**ALGORITHM:**

1. declare list of keys and values
2. use sorted() function and operator.itemgetter to sort dict in ascending and descending order
3. print dictionary

**SOURCE CODE:**

import operator

mydict={}

while True:

key=input("enter a key(or 'q' to quit):")

if key=='q':

break

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

mydict[key]=value

print('original dictionary: ',mydict)

sd=dict(sorted(mydict.items(),key=operator.itemgetter(1)))

print('Dictionary in ascending order by value : ',sd)

sd=dict(sorted(mydict.items(),key=operator.itemgetter(1),reverse=True))

print('Dictionary in descending order by value : ',sd)

**OUTPUT:**

enter a key(or 'q' to quit): 1

enter a value: 2

enter a key(or 'q' to quit): 3

enter a value: 4

enter a key(or 'q' to quit): q

Original dictionary : {‘1’: 2, ‘3’: 4 }

Dictionary in ascending order by value : {‘1’: 2, ‘3’: 4}

Dictionary in descending order by value : { ‘3’: 4, ‘1’: 2 }

**RESULT:**

Program ran successfully and output is verified.

**MERGE TWO DICTIONARIES**

**AIM:**

Merge two dictionaries

**ALGORITHM:**

1. input two dictionaries
2. merge two dictionaries
3. print dictionary

**SOURCE CODE:**

mydict1={}

print("Enter elements of first dic")

while True:

key=input("enter a key(or 'q' to quit):")

if key=='q':

break

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

mydict1[key]=value

print("Enter elements of second dic")

mydict2={}

while True:

key=input("enter a key(or 'q' to quit):")

if key=='q':

break

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

mydict2[key]=value

print(mydict1|mydict2)

**GCD**

**AIM:**

Find gcd of 2 numbers

**ALGORITHM:**

1. read gcd of two numbers
2. calculate gcd
3. print gcd

**SOURCE CODE:**

def findgcd(a,b):

while b:

a,b=b,a%b

return a

num1=int(input("Enter the first number: "))

num2=int(input("Enter the second number: "))

gcd=findgcd(num1,num2)

print(f"The GCD of {num1} and {num2} is {gcd}.")

**OUTPUT:**

Enter the first number: 2

Enter the second number: 4

The GCD of 2 and 4 is 2.

**RESULT:**

Program ran successfully and output is verified.

**CREATE A LIST REMAINING EVEN NUMBER**

**AIM:**

From a list of integers, create a list removing even numbers

**ALGORITHM:**

1. input a list of integers
2. check a number is divisible by 2 or not
3. If number is divisible by 2, i.e even number
4. Remove even number from list
5. Print List

**SOURCE CODE:**

c=int(input("How many elements: "))

list1=[]

for i in range(c):

list1.append(int(input("Enter the element: ")))

for i in list1:

if(i%2==0):

list1.remove(i)

print(list1)

**OUTPUT:**

How many elements: 3

Enter the element: 1

Enter the element: 3

Enter the element: 4

[1, 3]

**RESULT:**

Program ran successfully and output is verified.