

Date: 12/10/2021

Program No1

AIM: Simple python program to add two numbers.

a=10

b=12

g=a+b.

print(g).

Result:

The program has been executed and the output was verified.

Output

22.

Date: 14/01/2021

Program No:2.

AIM: Python program to find area.

def area(r);

Pi = 3.14;

return Pi*(r*r)

num = float(input("Enter the value for r:"))

print("Area is %0.6f" % area(num));

Result: The program has been executed and the output was verified.

Output

Enter Value for r : 2

Area is 12.57

Date: 16/01/2021

Program No: 3.

AIM: Write a python program to find area of circle.
using math.pi

import math

def area_of_Circle(r):

a=r**2 * math.pi.

r=float(input("Enter the radius of the circle:"))

print("Area=%0.2f" % area_of_circle(r));

Result: The program has been executed and the output was verified.

Output

Enter the radius of the circle: 2.

Area = 12.57.

Program No:4.

Aim: Python program to find largest among three numbers.

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

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

```
num3 = int(input("Enter the third number:"))
```

If ($\text{num1} > \text{num2}$) and ($\text{num1} > \text{num3}$):

```
    largest = num1
```

else if ($\text{num2} > \text{num1}$) and ($\text{num2} > \text{num3}$):

else:

```
    largest = num3.
```

```
Print("The largest number is", largest)
```

Result: Program has been executed and the output was verified.

Output.

Enter first number : 2

Enter second number : 10

Enter third number : 100

The largest number is 100.

Date: 16/01/2021

Program No:5.

Aim: Python program to find square of number.

number = int(input("Enter an integer number"));

square = number * number.

print("Square of [number] is [square]")

Result: The program has been executed and the output was verified.

Output

Enter an integer Number: 2.

Square of 2 is 4

Program No.6

AIM:- Python program to create square of N numbers.

~~N = input("Enter N:")~~

~~N = int(input("Enter N:"))~~

~~i = 1~~

~~n = list()~~

~~sq = list()~~

~~while (i <= N)~~

~~a = int(input("Enter " + str(i) + "-th number:"))~~

~~n.append(a)~~

~~sq.append(a**2)~~

~~i += 1~~

~~print("Numbers: " + str(n))~~

~~print("Squares: " + str(sq))~~

Result:

Program has been executed and the output was verified.

Output

Enter N: 5

Enter 1-th number: 4

Enter 2-th number: 6

Enter 3-th number: 9

Enter 4-th number: 9

Enter 5-th number: 6

Numbers: {4, 6, 9, 9, 6}

Squares: {16, 36, 81, 81, 36}

Date 26/01/2021

Program No: 7

Aim: Python program to form a list of vowels selected from a given word.

StringA = "Hi how are you"

Print("Given string: \n", StringA)

Vowels = "AaEeIiOoUu"

res = set([each for each in StringA if each in
vowels])

Print("The vowels present in the string: \n", res)

Result: Program has been executed and the output was
verified

Output

Given string:

Hi how are you.

The vowels present in the string:

{'U', 'e', 'i', 'o', 'a'}

Program No: 8

Aim: Python program -to count -the occurrences of each word in a line of text.

```
def word_occure(stx):
    counts = dict()
    words = stx.split()
    for word in words:
        if word in counts:
            counts[word] += 1
        else:
            counts[word] = 1
    return counts
```

```
print(word_occure("NOTHING IS PERMANENT IN
THIS WORLD"))
```

{

Result:

The program has been executed and the output was verified.

output

{'NOTHING': 1, 'IS': 1, 'PERMANENT': 1, 'IN': 1, 'THIS': 1,
'WORLD': 1}

Date: 26/11/2021

Program No. 9

Aim: Python program to store a list of first names.
count the occurrences of 'a' within -the list.

```
a = {'anjana', 'ammu', 'asha'}
```

```
str1 = '' , .join(a)}
```

```
Print(a)
```

```
Count=0
```

```
for i in list:
```

```
    if i=='a':
```

```
        count=count+1
```

```
Print("Count of a in -the list is :" + str(count))
```

Result:

The program has been executed and -the output was verified.

Output

{'anjana', 'ammu', 'asha'}

Count of a in the list is: 6

Date: 26/1/2021

Program No: 10

Aim:- Python programs to check whether two list are of same length.

```
list1 = [10, 20, 30, 40, 50, 60]
```

```
list2 = [1, 2, 3, 4, 5, 66, 77, 88, 99]
```

```
len1 = len(list1)
```

```
len2 = len(list2)
```

```
Print(list1)
```

```
Print(list2)
```

```
If len1 == len2:
```

```
    Print('both list have equal length')
```

```
else:
```

```
    Print('both list doesn't have equal length')
```

```
list3 = [10, 20, 30, 40, 50, 60]
```

```
list4 = [1, 3, 4, 5, 66, 77]
```

```
len3 = len(list3)
```

```
len4 = len(list4)
```

```
Print(list3)
```

```
Print(list4)
```

```
If len3 == len4:
```

```
    Print('both list have equal length')
```

else:

Print('both list doesn't have equal length').

Result:

The program has been executed and the output was verified.

Output

[10, 20, 30, 40, 50, 60]

[1, 3, 4, 5, 66, 77, 88, 99].

both list doesn't have equal length.

[10, 20, 30, 40, 50, 60]

[1, 3, 4, 5, 66, 77]

both list have equal length.

Date 26/01/2021

Program No:11

Aim: Python program to check the sum of list.

list1 = {100, 100, 100}

list2 = {10, 11, 12, 10, 12}.

total1 = sum(list1)

total2 = sum(list2) .

Print(list1)

Print(list2)

If total1 == total2:

 Print('both list have equal sum')

else:

 Print('both list doesn't have equal sum')

Result: The program has been executed and the output was verified

$\{100, 100, 110\}$

$\{10, 11, 12, 10, 12\}$

both list doesn't have equal sum

so both balances good and compare
between each other

Program No: 12.

Aim: Python program to create a string from given string where first and last characters exchanged

def changeString(str1):

return str1[1:] + str1[-1] + str1[0]

Print(changeString('python')).

Result: Program has been executed and the output was verified.

Output

nythop

11.0M memory

all kinds of mapping and stuff

{0x10000000} = tail

{51,01,51,11,01} = slot

(tail) m2 = 1/pch

(slot) m2 = slot

(tail) trans

(slot) trans

slot = slot * H

(maps loops and tail slot) link

-323

maps loops and tail slot) link

all kind of loops and kind of mapping with them

loop over maps higher

Program No: 13.

Aim:- Python program to accept an integer n and compute $n + nn + nnn$.

$a = \text{int}(\text{input}("Input an integer:"))$

$n1 = \text{int}("%os" \%a)$

$n2 = \text{int}("%os" \% (a,a))$

$n3 = \text{int}("%os" \% (a,a,a)).$

$\text{Print} ("The sum of", n1, "+", n2, "+", n3, "is:.)$

$\text{Print} (n1+n2+n3)$

Result: Program has been executed and the output was verified.

Output

Input an integer : 6

The sum 6 + 66 + 666 is:

738.

Date: 26/01/2021

Program No: 14

Aim: Python program to find gcd of two integers.

```
import math
```

```
a=int(input("Enter first number:"))
```

```
b=int(input("Enter another integer:"))
```

```
print ("gcd is "+str(math.gcd(a,b)))
```

Result: Program has been executed and the output was verified.

Enter first number: 6

Enter another integer: 1

gcd is:

Program No: 15.

Aim: From a list integers, create a list removing even numbers.

$\text{num} = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12\}$

$\text{num2} = \text{list}()$

For i in num :

If ($i \% 2 \neq 0$):

$\text{num2.append}(i)$

$\text{Print}(\text{"Original list: " + str(num)})$

$\text{Print}(\text{"Even removed: " + str(num2)})$.

Result: program has been executed and the output was verified.

Output

Original list: [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12]

Even removed: [1, 3, 5, 7, 9, 11]

Date: 26/01/2021

Program No.: 16.

Aim: Python program to ascend and decent dictionary.

import operator.

d = {1:2, 3:5, 4:3, 2:1, 0:0}

Print ('Original dictionary:', d)

Sorted_d = sorted(d.items(), key=operator.itemgetter(1))

Print ('Dictionary in ascending order by value:', sorted_d)

Sorted_d = dict(sorted(d.items(), key=operator.itemgetter(1), reverse=True))

Print ('Dictionary in descending order by value:', sorted_d)

Result: Program has been executed and the output was verified.

Output

Original dictionary: $\{1:2, 3:5, 4:3, 2:1, 0:0\}$.

Dictionary in ascending order by value $\{(0,0), (2,1), (1,2), (4,3), (3,4)\}$.

Dictionary in descending order by value

$\{3:4, 4:3, 1:2, 2:1, 0:0\}$

Date: 3/10/2021

Program No: 17

Aim: Python program for Fibonacci Series.

nTerms = int(input("How many terms?"))

n1, n2 = 0,

count = 0

If nTerms <= 0 :

Print("please enter a positive integer")

else if nTerms == 1 :

Print("Fibonacci Sequence upto", nTerms, ":")

Print(n1)

else:

Print("Fibonacci sequence:")

While count < nTerms:

Print(n1)

n3 = n1 + n2.

n1 = n2.

n2 = n3.

count += 1

Result: Program has been executed and output was verified.

Output

How many terms? 3.

Fibonacci Sequence:

0
1
1

{0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144}

(b) \rightarrow $b = \text{long}(0)$

(c)

Date: 3/09/2021

Program No: 18.

Aim: Python program to find factorial.

num = int(input("Enter a number:"))

factorial = 1

If num < 0:

Print ("Sorry, factorial does not exist for negative numbers")

else if num == 0:

Print ("The factorial of 0 is 1")

else:

for i in range(1, num+1):

 factorial = factorial * i.

Print ("Factorial of " + str(num) + " is " + str(factorial))

Result: Program has been executed and output was verified.

Output

Enter a number: 5

factorial of 5 is 120.

Program No: 19.

Aim: Python program to find the sum of all items in a list.

Sum = 0

input_string = input("Enter the elements separated by Space")

list = input_string.split()

Print("calculating sum of element of input list")

Sum = 0

for num in list:

Sum += int(num)

Print("Sum =", Sum).

Result: Program has been executed and the output was verified.

Output

Enter the elements separated by space 10 20 30.

Calculating sum of elements of input list.

Sum=60.

Program No: 20.

Aim: Python program to construct following pattern using nested loop.

*

**

**

rows = 5

```
for i in range(0, rows):
    for j in range(0, i+1):
        print("*", end=' ')
    print("\r")
    for i in range(rows, 0, -1):
        if(i!=2):
            for j in range(0, i-1):
                print("*", end=' ')
            print("\r")
```

Result: Program has been executed and output was verified.

output

*
* *
* * *
* * * *
* * * * *
* * * *
* * *
* *

Date 31/02/2021.

Program No: 21

Aim: Python program to find longest coord.

def longestLength(a):

max1 = len(a[0])

temp = a[0]

for i in a:

if (len(i) > max1):

max1 = len(i)

temp = i

Print ("The coord with the longest length is", temp,
"and the length is", max1)

InputString = input("Enter a list element separated by
space")

list = InputString.split()

longestLength(list)

Result:

The program has been executed and the
output was verified

Output:

Enter a list of elements separated by space.

asha anjana ammu.

word with the longest length is:

anjana and length is 6.