Date : 14/01/2021

Program No: 1

AIM: Python program to find area

```
def area(x):
    Pi = 3.14
    return Pi*(x*x);

num = float(input("enter the value for:"))
print("Area is %.6f" % area(num));
```

Result:

The program has been executed and the output was verified.

Output

enter the value for : 3

Area is 28.26000

Date: 16/01/2021

Program No: 2

AIM: Python program to find largest among 3 Numbers

```
number1 = float(input("enter the first number:"))
number2 = float(input("enter the second number:"))
number3 = float(input("enter the third number:"))
if (number1 > number2) and (number1 > number3):
    lagest = number1
elif (number2 > number1) and (number2 > number3):
    largest = number2
else:
    largest = number3
print("the largest number is ", largest)
```

Result:

The program has been executed and the output was verified.

Output

enter the first number : 2

enter the second number : 4

enter the third number : 5

the largest number is 5

Date: 16/01/2021

Program No: 3

AIM: Python program to find square of a number

```
digit = int(input("enter an integer number:"))
square = digit * digit
print(f"square of {digit} is {square}")
```

Result:

The program has been executed and the output was verified.

Output

Enter an integer number: 4

Square of 4 is 16.

Date: 26/01/2021

Program No: 4

AIM: python program to find area of circle

```
From math import pi
r= float (input the radius of the circle:"))
print ("The area of the circle with radius"
    +str(r)+" is:" +str(pi* r**2))
```

Result:

The program has been executed and the Output was verified.

Output

Input the radius of the circle: 4

The area of the circle with radius 4.0 is:

50.2654

Date: 26/01/2021

Program No: 5

AIM: Python program to find square of n

```
list1 = [14, 20 13, 8, 6, 2]

for n in list1:

    square = n**n

    print (n, squared is', square)
```

Result

The program has been executed and the Output was verified.

Output

14 squared is 196

20 squared is 400

13 squared is 169

8 squared is 64

6 squared is 36

2 squared is 4

Date: 26/01/2021

Program No: 6

AIM: Python program to find vowels in a string.

```
stringA = "Hello.. 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:

The program has been executed and the Output was verified.

Output

Given string:

Hello... how are you

The vowels present in the string:

{'u', 'a', 'e', 'o'}

Date: 26/01/2021

Program No: 7

AIM: Python program to count words in a sentence.

```
def word_count(str):
    counts = dict()
    words = str.split()
    for word in words:
        if word in counts:
            counts[word] += 1
        else:
            counts[word] = 1
    return counts
print(word_count('when you change the quality of your thinking, you change the quality of your life sometimes instantly'))
```

Result:

The program has been executed and the output was verified.

Output

{'when': 1, 'you': 2, 'change': 2, 'the': 2, 'quality': 2,
'of': 2, 'your': 2, 'thinking': 1, 'life': 1, 'sometimes': 1
, 'instantly.': 1}

Date: 26/01/2021

Program No: 8

AIM: Python program to count a in a list.

```
a=['anto','sebas','roshan','joseph']
str1=(''.join(a))
count=0
for i in str1:
    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

count of a in the list is : 3

Program No: 9

AIM: Python program to check the length of lists.

```
list1 = [10,10,11,12,12,13,14,16,15,16,12]
list 2 =[16,12,13,14,15,16,10,11,12,10,12]
len1 = len(list1)
len2 = len(list2)
 If len1==len2:
     print('both list have equal length')
 else:
   print(' both list doesnt have equal length')
```

Result:

The program has been executed and the Output was verified.

Output

both list have equal length

Date: 26/01/2021

Program No: 10

AIM: Python program to check the sum of lists.

```
list1 = [10, 10, 11, 12, 12, 13, 14, 16, 15, 16, 12]
list2 = [16, 12, 13, 14, 15, 16, 10, 11, 12, 10, 12]
total1 = sum(list1)
total2 = sum(list2)
if total1 == total2:
    print('both list have equal sum')
else:
    print('both list doesnt have equal sum')
```

Result:

The program has been executed and the output was verified.

Output

both list have equal sum.

Date: 27/01/2021

Program No: 11

AIM: Python program to check the common elements in the lists.

```
list1 = [10, 10, 11, 12, 12, 13, 14, 16, 15, 16, 12]
list2 = [10, 10, 11, 12, 12, 16, 14, 16, 15, 19, 12]
for value in list1:
    if value in list2:
        common = 1
if common == 1:
    print ("there are common elements")
else:
    print ("no common elements")
```

Result:

The program has been executed and the output was verified.

Output

these are common elements.

Date: 27/01/2021

Program No: 12

AIM: Python Program to replace a character.

```
def change_char(str1):
    char = str1[0]
    str1 = str1.replace(char, '$')
    str1 = char + str1[1:]
print(change_char('refresh'))
```

Result:

The program has been executed and the Output was verified.

Output

refresh

Date: 27/01/2021

Program No: 13

AIM: Python program to exchange the first and last letter in a string

```
def change_string(str1):
    return str1[-1:] + str1[1:-1] + str1[:1]

print(change_string('pineapple'))
```

Result:

The program has been executed and the output was verified.

Output

einneapplp

Date: 27/01/2021

Program No: 14

AIM: Python program to Merge 2 dictionaries

```
def Merge (dict1, dict2):
    return (dict2.update (dict1))

dict1 = {'a':10, 'b':8}
dict2 = {'d':5, 'c':2}
print (Merge (dict1, dict2))
print (dict2)
```

Result:

The program has been executed and the output was verified.

Output

None

{'d': 5, 'c': 2, 'a': 10, 'b': 8}

Date: 27/01/2021

Program No: 15

AIM: Python program to ascend and decent dictionary.

```
import operator
d={1:2, 3:4, 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:

The program has been executed and the output was verified.

Output

Original dictionary : {1:2, 3:4, 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 : 27/01/2021

Program No: 16

AIM: Python program to remove even numbers from the list.

```
list=[11,22,33,44,55,66,77,88,99]
print(list)
for i in list:
    if(i%2==0)
        list.remove(i)
print("list after removing:", list)
```

Result

The program has been executed and the output was verified.

Output

[11, 22, 33, 44, 55, 66, 77, 88, 99]

list after removing: [11, 33, 55, 77, 99]

Date: 27/01/2021

Program No: 17

AIM: Python program to find gcd of numbers

```
def gcd(a,b):
    if(b==0):
        return a
    return gcd(b,a%b)

a=45
b=65
if(gcd(a,b)):
    print('GCD of',a,'and',b,'is',gcd(a,b))
else:
    print('not found')
```

Result:

The program has been executed and the output was verified.

Output

GCD of 45 and 65 is 5

Date: 03/02/2021

Program No: 18

AIM: Python program to find factorial of a number.

```
num = int(input("Enter a number:"))
factorial = 1
if num < 0:
    print("sorry, factorial does not exist for
        negative numbers")
elif num == 0:
        print("The factorial of 0 is 1")
else:
    for i in range(1, num+1):
        factorial = factorial * i
    print("The factorial of", num, "is", factorial)
```

Result:

The program has been executed and the output was verified.

Output

Enter a number: 5

The factorial of 5 is 120

Date: 03/02/2021

Program No: 19

AIM: Python program to find fibonacci sequence.

```
def recur_fibo(n):
    if n<=1:
        return n
    else:
        return(recur_fibo(n-1) + recur_fibo(n-2))
nterms = int(input("How many terms?."))
if nterms<=0:
    print("please enter a positive integer")
else:
    print("Fibonacci sequence:")
    for i in range(nterms):
        print(recur_fibo(i))
```

Result:

The program has been executed and the output was verified.

Output

How many terms? 4

Fibonacci sequence:

0
1
1
2

Date : 03/02/2021

Program No : 20

AIM : Python program to perform string function.

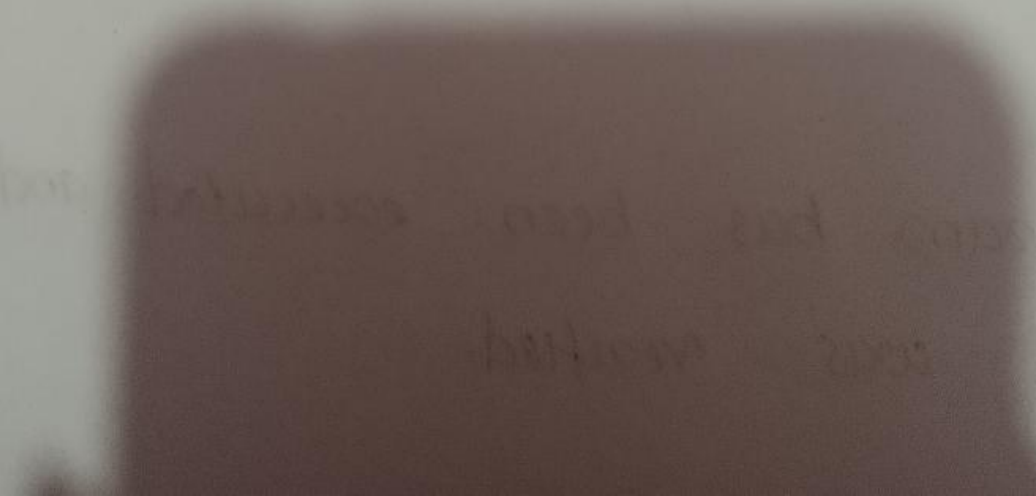
```
def add-string (str1):
    length = len(str1)
    if length > 1 :
        if str1[-3:] = "ing":
            str1 += 'ly'
        else:
            str1 += 'ing'
    return str1
print (add-string('do'))
print (add-string ('according'))
```

Result :

The program has been executed and the output was verified.

Output

doing
accordingly



Date: 03/02/2021

Program No: 21

AIM: Python program to perform the sum of given items.

```
numbers=[1,2,3,4,5,2,5]

sum= sum(numbers)

print(sum)
```

Result:

The program has been executed and the output was verified.

Output

22