Date: 17/01/2021

Program - 1

AIM: Python program to find largest among 3 numbers

```
a= float(input("Enter first number:"))
b= float(input("Enter second number:"))
c= float(input("Enter third number:"))
if (a>b) and (a>c):
    biggest=a
elif (b>a)and (b>c):
    biggest =b
else:
    biggest=c
print("The biggest number is", biggest)
```

Result: The program has been executed and output is verified.

Output

```
Enter first number : 4
Enter second number: 6
Enter third number: 1
The biggest number is 6.0
```

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Program - 2

Aim: Python program to find area of circle

```
def area(r):
    pi= 3.14
    return pi*r*r

radius = float (input ("Enter the radius: "))
a=area(radius)
print("Area is:", a, "sq. units")
```

Result: The program ~~is~~ has been executed and output is verified

Output

Enter the radius : 2

Area is : 12.56 sq.units

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Program - 3

Aim: Python program to find ~~are of~~ square of number

```
n=int(input("Enter an integer:"))
square=n*n
print("square of",n,"is:" square)
```

Result: The program has been executed and output is verified.

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Output

Enter an integer: 3
Square of 3 is: 9

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Program -4

Aim: Pytha program to find square of n numbers

```
list = [4, 8, 10, 3]
for n in list:
    square = n ** 2
    print (square, ' ')
```

Result: The program has been executed ~~successfully~~ and output is verified.

output

16,
64,
100,
9,

26/1/21 Program -5

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

```
string = "This is a python program"
print ("The string is :", string)
vowels = "AaEe Ii OoUu"
final = set([each for each in string if each
  in vowels])
print ("Vowels present are :", final)
```

Result: The program has been executed and output is verified.

Output

The string is : This is a python program

Vowels present are : {i, a, o}

26/1/21 Program - 6

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

```
def count(str):
    d = dict()
    words = str.split()
    for word in words:
        if word in d:
            d[word] += 1
        else:
            d[word] = 1
    return d
print(count('this is a python program to count the occurences of each word in a line of text'))
```

Result: Program has been executed and result was verified.

Output

{'this':1, 'is':1, 'a':2, 'python':1,
'program':1, 'to':1, 'count':1, 'the':1,
'occurence':1, 'of':2, 'each':1, 'word':1,
'in':1, 'line':1, 'tent':1}

26/1/21 Program-67

Aim: Python program to store a list of first names and count occurence of 'a' in the list.

```
list=['Ravi', 'Tom', 'John', 'sam']
count=0
string=" ".join(list)
for in in string:
    if i=='a':
        count=count+1
print("count of 'a' in list:"+str(count))
```

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

Output

count of 'a' in list: 2

26/1/21 Program-8

Aim: Python program ~~2 li~~ with 2 lists of integers and check whether list are of same length, list sums ~~are~~ to same value and whether any value occur in both.

```
list 1 = [5, 8, 1, 9, 2, 14, 3]
list 2 = [28, 4, 0, 8, 7, 18, 1]
len1 = len(list1)
len2 = len(list2)
if(len1 == len2):
    print("Lists are of equal length")
else
    print("Lists are not equal length")

sum1 = sum(list1)
sum2 = sum(list2)
if(sum1 == sum2)
    print("sums are equal")
else:
    print("sums are not equal")
```

```
for i in list1:
    if i in list2:
        flag=1
        break
    else:
        flag=0
if flag==1:
    print("there are common values")
else:
    print("there are no common values")
```

Result: Program has been executed and output was verified.

Output

Lists are of equal length
The sums are not equal
There are ~~comm~~ common values

Output

Lists are of equal length
The sums are not equal
There are ~~comm~~ common values

26/1/21 Program-89

Aim: Python program that creates a string from an input string where all occurences of first character replaced with '$' except first character. [eg: onion -> oni$n]

```
def func(string):
    firstchar = string[0]
    string = string.replace(firstchar, '$')
    string = firstchar + string[1:]
    return string
print(func("character"))
```

Result: Program has been executed and output was verified.

output

chara$ter

26/1/21 Program - 10

AIM: Python program to accept an integer n and compute n+nn+nnn.

```
num = int(input("Enter the integer:"))
n1=int("%s"%num)
n2= int("%s %s"%(num,num))
n3 =int("%s %s %s"%(num, num,num))
print(n1+n2+n3)
```

Result: Program has been executed and output is verified.

output

Enter the integer: 7

861

26/1/21 Program-11

Aim: Python program to sort dictionary in ascending & descending order.

```
import operator
d={3:0, 2:4, 4:1, 0:3}
print("Before sorting:", d)
sorteddic = sorted(d.items(), key=operator
  .itemgetter(1))
print('Dictionary in ascending order by value:',
sorteddic)
sorteddic = dict(sorted(d.items(),
key=operator.itemgetter(1), reverse=true))
~~sorteddic =~~
sorted_d= dict(sorted(d.items(),
key=operator.itemgetter(1), reverse=true))
print('Dictionary in descending order by value:',
 sorteddic)
```

Result: The program has been executed and output is verified.

26/11

output

Before sorting: {3:0, 2:4, 4:1, 0:3}

Dictionary in ascending order by value :

[(3,0),(4,1),(0,3),(2,4)]

Dictionary in descending order by value:

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

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Program - 12

Aim: Python program to create a list from another list by removing even numbers from the list.

```
list = [8, 9, 3, 2]
print (" Before removal :", list)
for i in list:
        if (i%2==0):
                list.remove (i)
print(" After removal :", list)
```

Result: Program has been executed and output is verified.

Output

Before removal : [8, 9, 3, 2]

After removal : [9, 3]

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Program-13

Aim: Python program to find factorial of a number

```
num= int(input("Enter the number:"))
fact=1
fact=
for i in range(1,num+1):
    fact= fact*i
print("Factorial is:", fact)
```

Result: Program has been executed and output was verified.

Output

Enter the number: 6
Factorial is : 720

3/2/21 Program: 14

Aim: Python program to print fibonacci series

```
def fibonacci(n):
    a=0
    b=1
    for i in range(0,n):
        print(a)
        c=a+b
        a=b
        b=c
fibonacci(4)
```

Result: Program has been executed and output was verified.

Output

0
1
1
2

3/2/21 Program-15

Aim: Python program to generate a list of four digit numbers in a given range with all their digits even and the number is a perfect square.

```
import math
def fun():
    for i in range(2009,5000):
        sqroot = int(math.sqrt(i))
        string = str(i)
        n1 = int(string[0])
        n2 = int(string[1])
        n3 = int(string[2])
        n4 = int(sting[3])
        if(sqroot * sqroot == i):
```

```
if((n1%2==0) and (n2%2==0) and
(n3%2==0) and (n4%2==0)):
    print(i)

fun()
```

Result: Program has been executed and output was verified

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output

4624
6084
6400
8464

3/2/21 Program no: 15

Aim: Python program to display the given pyramid with step number accepted from user:

eg, n = 4

```
1
2 4
3 6 9
4 8 12 16
```

Program:

```
l = int(input("Enter the limit : "))
for i in range(1, l+1)
    for j in range(1, i+1)
        temp = i*j
        print(temp, end=" ")
    print(" ")
```

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

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Output

Enter the limit: 5

1
2 4
3 6 9
4 8 12 16
5 10 15 20 25

3/2/21 Program no: 17

Aim: Python program to print the number of characters (character frequency) in a string.

Program:

```
string = "pythonprogram"
d = { }
for i in string:
        key = d.key()
        if i in key:
                d[i] = d[i] + 1
        else:
                d[i] = 1
print (d)
```

Result: Program has been executed and output was verified.

3/2/21 Program no: 17

Aim: Python program to print the number of characters (character frequency) in a string.

Program:

```
string = "pythonprogram"
d = { }
for i in string:
        key = d.key()
        if i in key:
                d[i] = d[i] + 1
        else:
                d[i] = 1
print (d)
```

Result: Program has been executed and output was verified.

output

{'p': 2, 'y': 1, 't': 1, 'h': 1, 'o': 2, 'n': 1, 'r': 2,
'g': 1, 'a': 1, 'm': 1}

3/2/21 Program no: 18

Aim: Python program that adds 'ing' at the end of a given string. If it already ~~exists~~ ends with 'ing' then add 'ly'.

Program:

```
def func(string):
    length = len(string)
    if length > 1:
        if string[-3] == 'ing':
            string = string + 'ly'
        else:
            string = string + 'ing'
    return string
print(func('python'))
print(func('walking'))
```

Result: Program executed and output was verified.

Output

pythoning

walkingly

3/2/21 Program no: 19

Aim: Python program that accepts a list of words and return length of longest word.

Program

```
def func(word):
    l=[]
    for i in word:
        l.append((len(i), i))
    l.sort()
    length = l[-1][0]
    lword = l[-1][1]
    print("Longest word:", lword)
    print("Length:", length)
func(['one', 'two', 'three', 'four'])
```

Result: Program has been executed and output was verified.

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Output

Longest word: three

Length : 5

3/2/2021 Program no: 20

Aim: Python program to generate all factors of a number

Program:

```
n= 140
for i in range (1, n+1):
        if n%i==0:
                print (i)
```

Result: Program has been executed and output was verified

Output

1
2
4
5
7
10
14
20
28
35
70
140

3/2/21 Program no: 21

Aim: Python program that uses ~~lambd~~ lambda function to find area of square, rectangle and triangle.

Program:

```
s= int(input("enter the side of square :"))
area = lambd  a:a*a
print (area(s))
 l= int (input ("enter length :"))
 b= int (input ("enter breath :"))
area = lambda l, b:l*b
print (area(l,b))
h= int(input("Enter height of triangle:"))
b= int (input ("Enter base of triangle :"))
area = lambda &h, b1:(l*b1)/2
print (area(h,b))
```

Result: Program has been executed and output was verified.

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Output

```
enter the side of square : 4
16
enter length : 7
enter breadth : 3
21
enter height of triangle : 8
enter base of triangle : 4
14.0
```