Program No: 1

AIM: Python Program to find area of circle

```
def area(r)
  Pi= 3.14
  num= float (input ("Enter the radius:"))
  Print= (" Area of circle %.6f"% area (num));
```

Result:

The Program has been verified

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Output

Enter the radius : 3

Area of circle 28.26000

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Program NO: 2

AIM: Python Program to find largest among 3 numbers

```
num1 = float (Input ("Enter the first number:"))
num2 = float (Input ("Enter the second number:"))
num3 = float (Input ("Enter the third number:"))
 If (num1 > num2) and (num2 > number3):
  largest = num1
 elif (num2 > num1) and (num2 > num3)
  largest = num2
 else:
      largest = num3
 Print ("The largest number is", largest)
```

Result:

The program has been executed and the output was verified

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Output

Enter the first number : 4
Enter the second number : 5
Enter the third number : 7

The largest number is 7

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Program No:3

AIM: Python Program to find square of a number

```
digit : int("Enter an Integer number:"))
square =digit * digit
print(f"square of {digit} is {square}")
```

Result:

The Program has been executed and output was verified

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Output

Enter an integer number : 4
Square of 4 is 16

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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.

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Output

Input the radius of the Circle : 4
The area of the Circle with radius 4 is.
50.2654

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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

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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, square is ";square)
```

Result

The Program has been executed and output was verified.

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Output

Given String:

Hello . . how are you

the vowels present in the string:

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

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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

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Output

{'The' : 1, 'sky' : 2, 'is' : 1, 'blue' : 1}

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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("The sky is blue"))
```

Result:

The Program has been executed and output was verified.

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Output

Count of a in the list is : 3

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Program NO: 8

AIM : Python Program to count a in a list.

```
a=['anto','seban','aosban','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

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Output

both list have equal length

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Program No: 9

AIM: Python Program to check the length of lists

```
list1 = [10,10,11,12,12,13,14,16,15,16,]
list2 = [16,12,13,14,15,16,10,12,10,12]
len1 = len(list1)
len2 = len(list2)

If len1 ==len2 :
    print("both list have equal length")
else:
    print("both list doesnot have equal
        length")
```

Result:

The Program has been executed and output was verified

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Output

both list have equal sum

Scanned by TapScanner

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]
total 1 = sum (list1)
total 2 = sum(list 2)
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.

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Output

There are common elements

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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

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Output

refresh

Scanned by TapScanner

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 verified

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Program NO:13

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

```
def change_string(str1):
    return str[-1:] + str1[1:-1] + str1[:1]
print(change_string('pineapple'))
```

Result:

The Program has been executed and the output was verified

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Output

eineapplp

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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 output was verified

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Output

None

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

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Program NO: 15

AIM: Python Program to remove even numbers From the list

```
list = [11,12,22,33,44,55,66,77,88,99]
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.

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Output

[11,12,22,33,44,55,66,77,88,99]

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

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classmate

Date

Page

PROGRAM NO: 16

AIM - Form a list of vowels selected from a given word

```
strings = "good morning"
vowels = "aeiou"
u = set([each for each in strings if each in
        vowels])
Print ("The vowels present in string:\n",u)
```

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Output

The vowels present in string :

{'o', 'i'}

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PROGRAM NO: 17

AIM - Phython program to store a list of first names. Count the occurances of 'a' within the list

```
a= ['abisha','ancy' ,'meenu','laya','ashi']
str1 = ('.Join(a))
Count=0
for i in str1 :
        If ~~str~~ i=='a' :
                Count= Count+1
Print ("count of a in list is:" +str(count))
```

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Output

Count of a in list is : 6

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Program No: 18

Aim - Python Program to accept an Integer n and Compute n+nn+nnn

```
a = int(input("Input an Integer :"))
n1 = a
n2 = a*a
n3 = a*a*a
Print (n1+n2+n3)
```

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Output

Input an Integer : 6

258

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Program NO:19

AIM- python program to sort dictionary in ascending and descending order.

```
Import operator
d={1:2,3:4,4:3,2:1,0:0}
Print ('orginal 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)
```

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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}

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Program NO: 20

AIM - Python program to find of 2 numbers

```
a=98
b=56
If (gcd(a,b)):
        Print ('GCD of', a, 'and', b, 'is', gcd(a,b))
else:
        Print ("not found')
```

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Output

GCD of 98 and 56 is 14

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Program No: 21

AIM - Python program to find the factorial of a number

```
num = int(input("Enter the number:"))
fact = 1
for i in range(1,num+1):
        fact = fact*i
Print("factorial of %d = %d" % (num, fact))
```

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Output

Enter the number : 5

factorial of 5 = 120

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Program No: 22

AIM - Python Program to Generate fibonacci Series of N terms

```
N = int(input("Number of elements :"))
fib = [0,1]
If N>2 :
    for i in range (2,N):
        ne = fib[i-1] + fib[i-2]
        fib.append (ne)
print (fib)
```

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Output

Number of elements : 12

[0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89]

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Program NO: 23

AIM - Python Program to find the sum of all items in a list.

```
total = 0
list1 = [11,5,3,20]
for ele in range (0, len(list1)):
    total = total + list1 [ele]
print ("sum", total)
```

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Output

sum 39

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Program No: 24

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

```
num1 = int(input("Enter a number :"))
num2 = int(input("Enter a number :"))
for i in range(num1, num2+1):
    for j in range(32, 100+1):
        if i==j*j:
            string = str(i)
            if int(string[0]%2==0 and
int(string[1])%2==0 and int(string[2]%2==0)
Print(i)
```

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Output

4624
6084
6400
8464

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Program No: 25

AIM - Python program to display the given Pyramid with step number accepted by user:

```
rows = int(input("Enter the number of rows:"))
for i in range(1, rows):
    for j in range(1, i+1):
        Print(i*j, end = ' ')
    Print()
```

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Output

Enter the number of rows : 4

1

2 4

3 6 9

4 8 12 16

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Program NO: 26

Python program to accept a list of words and return length of longest word

```
def find_longest_word (words_list):
    word_len=[]
    for n in words_list :
        word len.append ((len(n),n))
    word_len.sort()
    return word_len[-1][0], word_len[-1][1]

result = find_longest_word (["Abisha", "Asish",
        "Vinod"])
Print ("\nLongest word :", result[1])

Print ("Length of the longest word :", result[0])
```

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Output

longest word : Abisba

length of the longest word : 6

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Program No: 27

AIM - Program to Generate all factors of a number

```
def PrintDivisors(n) :
 i=1
 while i<=n:
        If (n%i==0):
            Print (i)
       i=i+1


Print ("The divisors of 100 are:")
PrintDivisors (100)
```

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Output :

The divisors of 100 are :

1
2
4
5
10
20
25
50
100

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Program NO: 28

AIM- Python program to write lambda functions to find area of square, rectangle and triangle.

```
Import math
S_area = lambda a: a*a
R_area = lambda l,b : l*b
t_area = lambda b,b = (b*b)/2
Print ("Area of square (3) is :", S_area(3))
Print ("Area of rectangle (3,2) is :", R_area(3,2))
Print ("Area of triangle (4,6) is :", t_area(4,6))
```

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Output

Area of square (3) is : 9
Area of rectangle (3,2) is : 6
Area of triangle (4,6) is : 12.0

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Program No: 29

AIM - Python program to Create Rectangle class with attributes length and breadth and methods to find area and perimeter. Compare two rectangle objects by their area

```
class Rectangle:
    def __init__(self, l, b):
        self.length = l
        self.breadth = b
    def area(self):
        return self.length * self.breadth
    def perimeter(self):
        return 2*(self.length+self.breadth)
    def cmp(self, obj):
        if self.area()<obj.area():
            print('Rectangle with length =',
            self.length,'and breadth =',
            self.breadth,'has the greater
            area')
        elif self.area()<obj.area():
            print('Rectangle with length =', obj.length
            'and breadth=', obj.breadth, 'has the
```

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Output

Rectangle with length = 9 and breadth = 3 has greater area.

Scanned by TapScanner

```
greatter area')
else:
    Print ('They have equal area')

r1 = Rectangle (9,3)
r2 = Rectangle (3,4)
r1.Cmp(r2)
```

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Output

Enter account number: 234567
Enter name of the account holder: Abisha
Enter account type : savings
Enter your balance: 5000
Enter amount to deposit : 600
Rs. 600 deposited! Current balance is: Rs
56000

Enter amount to withdraw -3000

Current balance : 2600

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Program NO:30

AIM - Create a Bank account with members account number, name, type of account and balance write Constructor and methods to deposit at the bank and withdraw an amount from the bank.

```
class BankAccount:
    def __init__(self,a,n,t,b):
        self.acno=a
        self.name=n
        self.type=t
        self.bal=b
    def deposit(self,a):
        self.bal+=a
        print('Rs',a,'deposited! current
            balance is: Rs.', self.bal)
    def withdraw(self,a)
        if self.bal>=a:
            self.bal-=a
            print('Rs',a,'withdrawn!
            current balance is: Rs.', self.bal)
    else:
        print('insufficient balance to make
```

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```
this transcation!')
a=int(input('Enter account number:'))
n=input('Enter name of account holder:')
t=input('Enter account type:')
b=float(input('Enter your balance:')))34
acl=BankAccount(a,n,t,b)
acl.deposit(float(input('Enter amount to deposit:')))
acl.withdraw(float(input('Enter amount to
                withdraw:')))
```

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Output:

hello how are you?

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Program 31

AIM- Python Program to Copy odd lines of one file to other.

```
a=open('file2.txt','r')
b=open('hello2.txt','w')
c=a.readlines()
for i in range(0,len(c));
    If(i%2!==0):
        b.write(c[i])
    else:
        Pass
b.close()
b=open('file2.txt','r')
d=b.read()
Print(d)
a.close()
b.close
```

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