Functions

In [1]:
```
def function_name():
    print(" hi hello sravanii")
function_name()
```

```
sravanii
```

In [ ]:
```
# function to reverse a string:
def Reversing():
    s=input('Enter the string:')
    print(s[::-1])
Reversing()
```

In [3]:
```
#Square of a number using fucntions
def Square():
    n=int(input('Enter the number'))
    print(n**2)
Square()
```

```
Enter the number4
16
```

In [5]:
```
def SumOfNumber(n1,n2):
    return n1+n2
n1=int(input('Enter no1'))
n2=int(input('Enter no2'))
result=SumOfNumber(n1,n2)
print(result)
```

```
Enter no12
Enter no23
5
```

Recursion :A function calling by itself

In [ ]:
```
#fucntion to calculate the factorial of a given number using fucntions
def Fact(n):
    if(n==1):
        return 1
    else:
        return n*Fact(n-1)
n=int(input('Enter the number'))
result=Fact(n)
print(result)
```

In [7]:
```
#Function to count of digits in agiven number
def digtCount(g,l):
    while(g!=0):
        r=g%10
        l=l+1
        g=g//10
    print(l)
g=int(input('Enter the number:'))
l=0
digtCount(g,l)
```

```
Enter the number:345
3
```

In [1]:
```
#Function to check if a string is palindrome or not
def Palindrome(d):
    if(d[0:]==d[::-1]):
        print("The string is palindrome")
    else:
        print("The string is not palindrome")
d=input('Enter the string')
Palindrome(d)
```

```
Enter the stringmadam
The string is palindrome
```

Types of Fucntions

1.Without Arguments and without return value

In [2]:
```
def adding():
    n1=10
    n2=23
    print("Without Arguments and without return value",n1+n2)
adding()
```

```
Without Arguments and without return value 33
```

2)Without arguments and with return value

In [3]:
```
def mul():
    n1=12
    n2=23
    return n1*n2
result=mul()
print("Without arguments and with return value",result)
```

```
Without arguments and with return value 276
```

3)With Arguments without return value

In [5]:
```
def mul(n1,n2):
    print("With Arguments without return value",n1*n2)
n1=int(input('Enter n1'))
n2=int(input('Enter n2'))
mul(n1,n2)
```

```
Enter n12
Enter n23
With Arguments without return value 6
```

4)With Arguments with return value

In [8]:
```
def addition(n1,n2):
        return n1+n2
n1=int(input('Enter n1'))
n2=int(input('Enter n2'))
result=addition(n1,n2)
print("With Arguments with return value",result)
```

```
Enter n13
Enter n24
With Arguments with return value 7
```

In [10]:
```
#Function to print all numbers which are divisible by 6 and not factor of 100
 within the inclusive range(lowerbound and upper bound)
def Divisible(lb,ub):
    while(lb<=ub):
        if(lb%6==0 and lb%100!=0):
            print(lb)
        lb=lb+1
lb=int(input('Enter the lower bound'))
ub=int(input('Enter the upper bound'))
Divisible(lb,ub)
```

```
Enter the lower bound1
Enter the upper bound100
6
12
18
24
30
36
42
48
54
60
66
72
78
84
90
96
```

In [3]:
```
#Function to find the average of cubes of alll the even numbers in a given ran
ge(lb,ub) inclusive
def CubesOfEvenAverage(lb,ub):
    count=0
    su=0
    while(lb<=ub):
        if(lb%2==0):
            count=count+1
            su=su+(lb**3)
        lb=lb+1
        #print(count)
        print((su//count))
lb=int(input('Enter the lower bound'))
ub=int(input('Enter the upper bound'))
CubesOfEvenAverage(lb,ub)
```

```
Enter the lower bound2
Enter the upper bound10
8
8
36
36
96
96
200
200
360
```

In [4]:
```
#Function to generate the list of factors for a given number
def Factor(n):
    i=1
    a=[]
    while(i<=n):
        if(n%i==0):
            a.append(i)
        i=i+1
    print(a)
n=int(input('Enter the number'))
Factor(n)
```

```
Enter the number6
[1, 2, 3, 6]
```

Recursion :A function calling by itself

In [5]:
```
#Function to check whether the number is prime or not using recursive
def Prime(n,i=2):
    if(n<=2):
        return True if(n==2) else False
    if(n%i==0):
        return False
    if(i*i>n):
        return Prime(n,i+1)
n=int(input())
if(Prime(n)):
    print("yes")
else:
    print('No')
```

```
15
No
```

In [6]:
```
#Function to check if a given year is leap year or not
def Leap(year):
    if(year%400==0 or(year%4==0 and year%100!=0)):
        print("Leap")
    else:
        print("Not leap")
year=int(input("Enter the year"))
Leap(year)
```

```
Enter the year2020
Leap
```

In [7]:
```
#Function to identify the gratest of 4 number
def greatest(a,b,c,d):
    if(a>b and a>c and a>d):
        print("a is greatest")
    elif(b>a and b>c and b>d):
        print("bis greatest")
    elif(c>a and c>b and c>d):
        print("c is greatest")
    else:
        print("d is greates")
a=int(input("Enter the number1"))
b=int(input("Enter the number1"))
c=int(input("Enter the number1"))
d=int(input("Enter the number1"))
greatest(a,b,c,d)
```

```
Enter the number15
Enter the number16
Enter the number17
Enter the number12
c is greatest
```

In [ ]:
```
```