(1) python program to simple calculator using function.

In [1]:
```
def add(n1,n2):
    return n1+n2
def sub(n1,n2):
    return n1-n2
def mul(n1,n2):
    return n1*n2
def div(n1,n2):
    return n1/n2

print("1.addition")
print("2.substraction")
print("3.multiplication")
print("4.divison")

choice = int(input("you have choice number :"))
n1 = int(input("you have enter first number :"))
n2 = int(input("you have enter second number :"))

if choice == 1:
    print(n1,"+",n2,"=",add(n1,n2))
elif choice == 2:
    print(n1,"-",n2,"=",sub(n1,n2))
elif choice == 2:
    print(n1,"*",n2,"=",mul(n1,n2))
elif choice == 2:
    print(n1,"/",n2,"=",div(n1,n2))
else:
    print("invalid input.")
```

```
1.addition
2.substraction
3.multiplication
4.divison
you have choice number :2
you have enter first number :6
you have enter second number :3
6 - 3 = 3
```

(2) python program to whether given number is odd or even using function.

In [4]:
```
def fun(n):
    if n%2 == 0:
        print(n,"is even")
    else:
        print(n,"is odd")

n = int(input("enter number :"))
fun(n)
```

```
enter number :2
2 is even
```

(3) python program to count vowel and consonant in words.

In [27]:
```
def fun(word):
    n1 = input("enter character :")
    if n1 in word:
        if (n1=="a" or n1=="e" or n1=="i" or n1=="o" or n1=="u"):
            print("vowel")
        else:
            print("consonant")

word = input("enter the string :")
fun(word)
```

```
enter the string :krishna
enter character :i
vowel
```

(4) python program to find lenght of string using function.

In [10]:
```
def findlen(str1):
    count = 0
    for i in str1:
        count += 1
    return count

str1 = input("enter the string :")
findlen(str1)
```

```
enter the string :krishna
```

Out[10]:
```
7
```

(5) find area of circle using function.

In [12]:
```
def area(r):
    radius = 3.14*(r*r)
    return radius

r = int(input("enter the radius of circle :"))
area(r)
```

```
enter the radius of circle :2
```

Out[12]:
```
12.56
```

(6) find sum of elements of the list using function.

In [14]:
```
def fun(list1):
    sum = 0
    for i in list1:
        sum = sum + i
    return sum

list1 = [1,2,3,4,5]
fun(list1)
```

Out[14]:
```
15
```

(7) find average of list using function.

In [17]:
```
def fun(list1):
    return sum(list1)/len(list1)

list1 = [1,2,3,4,5]
fun(list1)
```

Out[17]:
```
3.0
```

(8) find factorial using function.

In [19]:
```
def fact(n):
    if n == 1:
        return n
    else:
        return n*fact(n-1)

n = int(input("enter number :"))
fact(n)
```

```
enter number :4
```

Out[19]:
```
24
```

(9) find factorial using recursion.

In [20]:
```
def rec_fact(n):
    if n == 1:
        return n
    else:
        return n*rec_fact(n-1)

n = int(input("enter number :"))
rec_fact(n)
```

```
enter number :4
```

Out[20]:
```
24
```