**1 .TO FIND FIBONACCI SERIES OF NUMBERS USING RECURSIVE FUNCTION**

def fibonacci(Number):

if(Number == 0):

return 0

elif Number == 1:

return 1

else:

return fibonacci(Number - 2) + fibonacci(Number - 1)

Number = int(input("Please Enter the Fibonacci Number Range = "))

Sum = 0

for Num in range(Number):

print(fibonacci(Num), end = '')

Sum = Sum + fibonacci

print("\nThe Sum of Fibonacci Series Numbers = %d" %Sum)

**OUTPUT**:

Please Enter the Fibonacci Number Range = 8

011235813

The Sum of Fibonacci Series Numbers = 33

**2.TO FIND A FACTORIAL VALUES OF GIVEN NUMBER**

def factorial(n):

if n == 0:

return 0

if n == 1:

return 1

else:

return n \* factorial(n-1)

n = int(input("Enter any number :"))

print("Factorial value of",n ,"is",factorial(n))

**OUTPUT:**

Enter any number :5

Factorial value of 5 is 120

**3. GIVEN STRING IS PALINDROME OR NOT**

def pal(s):

s = s.lower()

if len(s) <= 1:

return True

elif s[0] != s[-1]:

return False

else:

return pal(s[1:-1])

myinput = input("Enter a string: ")

if pal(myinput):

print(f"{myinput} is a palindrome.")

else:

print(f"{myinput}is not a palindrome.")

**OUTPUT**:

Enter a string: madam

madam is a palindrome.

**4.TO FIND GCD NUMBER FROM GIVEN INTEGERS**

def gcd(a,b):

if b==0:

return a

else:

return gcd(b,a%b)

x=input("enter the first integer:")

y=input("enter the second integer:")

if x. isdigit() and y. isdigit():

a=int(x)

b=int(y)

result=gcd(a,b)

print(f"the gcd of{a} and{b}is:",result)

else:

print("please enter valid integers")

**OUTPUT:**

enter the first integer:36

enter the second integer:18

the gcd of36 and18is: 18