Programs

Friday, July 11, 2025   7:25 PM

```
#WAP to find the factorial of a number
'''def fact(n):
    if n==1 or n==0:                .
        return 1
    return n*fact(n-1)
print(fact(4))'''

## WAP to find the sum of n natural numbers
'''def n_sum(n):
    if n==0:
        return 0
    return n+n_sum(n-1)
print(n_sum(25))'''

## WAP to find the nth number in the febonaci series
'''def feb(n):
    if n<=1:
        return 1
    return feb(n-1)+feb(n-2)
print(feb(4))'''

## WAP to find the number in form of a to the power b
'''def po(a,b):
    if b==0:
        return 1
    return a*po(a,b-1)
print(po(3,3))'''

##WAP to find the sum of all individual digits of a number
def dsum(n):
    if n==0:
        return 0
    return n%10 + dsum(n//10)
print(dsum(12345))

##Write a recursive function to reverse a string
'''
def revstr(s):
    if len(s) == 0:
        return ""
    return revstr(s[1:]) + s[0]
print(revstr("hello"))

##Count how many times a specific character appears in a string using recursion
def c_char(s, ch):
    if len(s) == 0:
        return 0
    count = 1 if s[0] == ch else 0
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        return count + c_char(s[1:], ch)
print(c_char("banana", 'a'))

##Print each element of a list on a new line using recursion
def p_list(arr, index=0):
    if index == len(arr):
        return
    print(arr[index])
    p_list(arr, index + 1)
p_list([1, 2, 3, 4])
```