STRONG NUMBER PROGRAM IN PYTHON

Strong Number:

A Strong Number is a number where the sum of factorial of individual digits is equal to the given number, then it is a STRONG NUMBER.

Example:

->Take an input(Ex:40585).

->Separate each digit from the given number as 4,0,5,8,5.

->We have to find the factorial of each digit.

4!=4*3*2*1=24

0!=1

5!=5*4*3*2*1=120

8!=8*7*6*5*4*3*2*1=40320

5!=5*4*3*2*1=120

->we need to sum all the above values.

24+1+120+40320+120=40585

->we need to check the sum with given number.

->if the sum is equal to given number print ”Strong Number” otherwise print “ NOT Strong Number”.

Aim of the program:

To print the given number is strong number or not.

Source Code:

```
def fact(n):
f=1
for i in range(1,n+1):
  f=f*i
return f
n=int(input())
sum=0
for i in str(n):
   sum=sum+fact(int(n))
if sum==n:
  print(“Strong Number”)
else:
  print(“NOT Strong Number”)
```

Test Case 1:

Input: 145

Output: Strong Number

Test Case 2:

Input: 999

Output: NOT Strong Number

Test Case 3:

Input: 1

Output: Strong Number

Test Case 4:

Input: -145

Output: NOT Strong Number

Test Case 5:

Input: 40585

Output: Strong Number