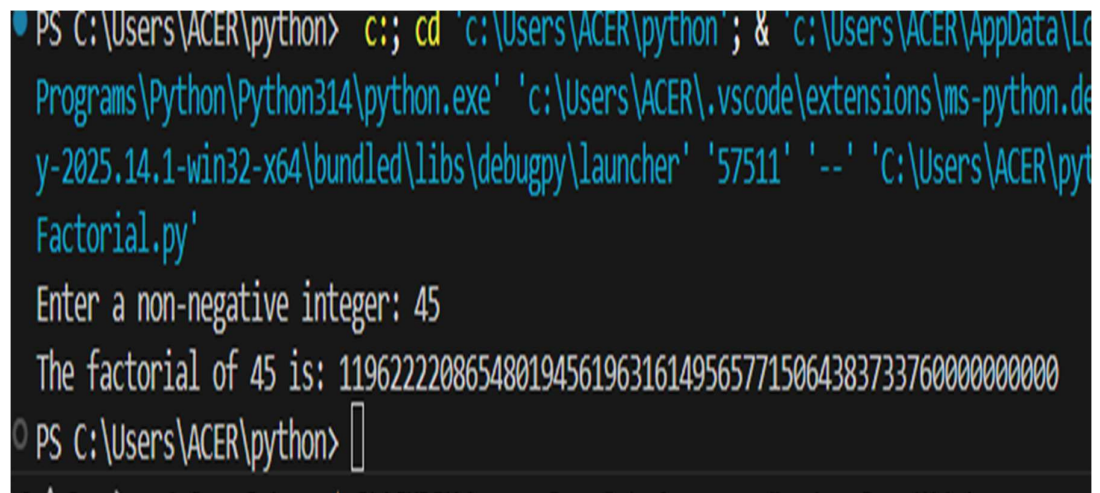


Write a Python function that calculates the factorial of a given non-negative integer. Use recursion to implement this function.

CODE:

```
def factorial(n):  
    if n == 0 or n == 1:  
        return 1  
    else:  
        return n * factorial(n - 1) # Recursive call  
  
num = int(input("Enter a non-negative integer: "))  
  
if num < 0:  
    print("Factorial is not defined for negative numbers.")  
else:  
    result = factorial(num)  
    print(f"The factorial of {num} is: {result}")
```

OUTPUT:



```
PS C:\Users\ACER\python> c::; cd 'c:\Users\ACER\python'; & 'c:\Users\ACER\AppData\Local\Programs\Python\Python314\python.exe' 'c:\Users\ACER\.vscode\extensions\ms-python.de  
y-2025.14.1-win32-x64\bundled\libs\debugpy\launcher' '57511' '--' 'C:\Users\ACER\py  
Factorial.py'  
Enter a non-negative integer: 45  
The factorial of 45 is: 119622220865480194561963161495657715064383733760000000000  
PS C:\Users\ACER\python> 
```