

# SHERLOCK Debug Analysis

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## Error: RecursionError

### Root Cause

The recursive function `factorial` lacks a base case. Without a condition to stop the recursion, it calls itself indefinitely, leading to an infinite recursion that eventually exceeds Python's maximum recursion depth.

### Fix

Add a base case to the `factorial` function. For the factorial function, the base case is when `n` is 0, in which case it should return 1.

### Fixed Code

```
def factorial(n): if n == 0: return 1 return n * factorial(n-1)
```

**Confidence: 100%**