

The Handshake Problem –Space Complexity

The stack grows size `n` while push . Hence auxiliary space taken here is : $O(n)$.

Note: The recursive call `handshake(n-1)` is not the last operation before the function returns. The expression `+(n-1)` performs an addition after the recursion, violating the requirement for pure tail recursion. As tail recursion optimizes code space from $O(n)$ to $O(1)$ here code remains $O(n)$ not $O(1)$.
