Data Structure & Algorithms using Python

Quiz Answers

Space Complexity Analysis

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1. Space Complexity Analysis

What is the space complexity of following recursive code ?

```
def multiplyRec(m, n):
    if n==1:
        return m
    return m + multiplyRec(m,  n - 1)
```

O(m)
O(m*n)
O(n)
None of these

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2. Merge Sort Space Complexity

The space complexity for merge sort is :

O(n)
O(n^2)
O(nlogn)
O(log n)

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3. Fibonacci Space Complexity

The space complexity for finding nth fibonacci number using recursion is :

O(n)
O(2^n)
O(log n)
O(n^2)
O(nlogn)