Sunday, 12 June 2016

Crux

Lecture -7

Time and Space Complexity

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CODING BLOCKS

Problems

- Keypad?
- Subsequence?
- Permutations?
- Return or Print?

Quick Sort?

Order Complexity Analysis

Amount of time/space taken by the algorithm to run as a function of the input size

Experimental Analysis

- Bubble Sort vs Merge Sort

Theoretical Analysis

- Bubble Sort, Selection Sort, Insertion Sort
- Binary Search
- Factorial
- Merge Sort
- Fibonnaci

Complexity Analysis

```
For(int I = 0; I <= N; i++){
        for(int j = I; j <= k; j++){
                // some operation taking time c.
        }
}
```

Time Complexity for some K < N

Complexity Analysis

```
For(int I = 1; I <= N; ){
        for(int j = 1; j <= k; j++){
                // some operation taking time c.
        }
        I += K
}
```

Time Complexity for some K < N

Think

- CheckDuplicate
- Polynomial
- Power
- Assignment 3 and Assignment 4

What is space complexity?

What in case of recursion?

Your Turn

- Find number of substrings of a string which are palindrome

Thank You!

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