

CS-HU 390

Big-O

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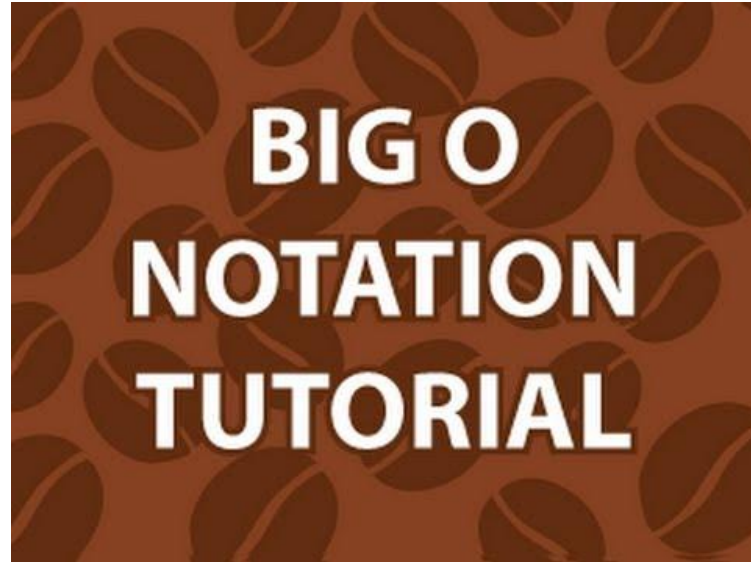


Outline

- Talk by Axel Magnuson (Google)
- Big O Story
- UCSD Phone Interview
- Whiteboarding!!!



Big O Story



<https://www.youtube.com/watch?v=V6mKVRU1evU>



Big-O Sample Problem

- Examples 13, 14, 15. [PP 52-54. Cracking the Coding Interview]



In-class Exercise

Exercise 11.1. Implement an algorithm that determines if a string has all unique characters? What if you cannot use any additional data structures? [p 90 of Cracking the Coding Interview]

- What assumptions do you need to make?
- How much is the run-time complexity of your solution?
- How much is the space complexity of your solution?



In-class Mini-interview Practice

1. Write a method that takes an array of integers as a parameter and returns the maximum.
2. Write a method that takes a String s as an argument and returns a new String that contains all the characters in even positions from the input String. For example, for
String s = "Whoa" the method would return "Wo"
3. Write a method that returns a String of given length n that has random characters from a - z (lowercase)

```
public String randomString (int n) { ... }
```



Phone Interview

Homework: Watch this mock phone interview (before next class)

<https://www.coursera.org/learn/cs-tech-interview/lecture/M5aGs/appendix-full-length-mock-phone-interview>