More About Complexity

May 6, 2020

Administrative Notices

Student Evaluations - you have until May 12

- I would appreciate honest feedback - help make the course better for people who will take it in the future

Lab 11 due tomorrow night

There will be a practice final exam on Blackboard later this week

- We'll go over it in lecture next Monday (May 11)

Project 3

Algorithm Analysis

To summarize last lecture: we're interested in determining the complexity of an algorithm.

This is usually stated in terms of the algorithm's performance in the worst case - "Big O" notation

Sometimes stated in terms of the algorithm's performance in the best case - "Big Omega" notation

Stated in terms of "n" - performance on a list of length n items

Big Theta

If Big O = Big Omega for an algorithm, then we can say that the algorithm's performance is "Big Theta."

- Big Theta is a good quantity to know about an algorithm, because it gives us a good idea of the algorithm's performance under all circumstances

If Big O is not equal to Big Omega, then there is no "Big Theta" for the algorithm.

What to expect on the Final

Sample final on Blackboard by Friday night (okay, Saturday morning, latest) -we'll discuss it next Monday

- Similar to Exam 2, on Blackboard
- 15 MC/T-F questions; 4 pts each - 60 points
- 2 debugging problems; 10 pts each - 20 points
- 8 short-answer questions; 7 or 8 points each - 60 points
- 3 programming problems; 20 points each - 60 points