Session 4
Fundamentals

Lecture Summary

Rather than repeat, use each example to build layers of understanding. Develop insights into identifying a suitable input size parameter, choice of a suitable basic operation, appropriate asymptotic efficiency class to best report performance, and impact of multiplicative constants.

Analysis Examples

1. Analysis of non-recursive algorithms
2. Math skills for steps 4-5: summations
3. Apply plan to (how to read?): *MaxElement*, *UniqueElements*, *MatrixMutiplication*
4. 🕔 Algorithm *Binary*: left to students as exercise

Session Exercise

P6. 🕮 Code the algorithm *Binary* from Section 2.3 and run on as many instances as you can (how?). Output the number of times a basic operation *C(n)* is repeated in each case. Compare to result obtained directly from the pseudocode.

🕮 **Exercise 2.3** • 1, 2, 4, 9

Reading List

🕮 2.3

Keywords