Amortised Analysis

Chapters 17.1-17.2 of Cormen's book

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Amortised analysis

In an amortised analysis, we average the time required to perform a sequence of operations over all the operations performed.

With amortised analysis, we can show that the average cost of an operation over a sequence of operations is small, even though a single operation within the sequence might be expensive.

Probability is not involved; an amortised analysis guarantees the average performance of each operation in the worst case.

Exercises

EX (Cormen 17.1-1): If the set of stack operations included a MULTIPUSH operation, which pushes k items onto the stack, would the O(1) bound on the amortized cost of stack operations continue to hold?

Hashing

Chapters 11.1-11.3 and 17.4 of Cormen's book

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