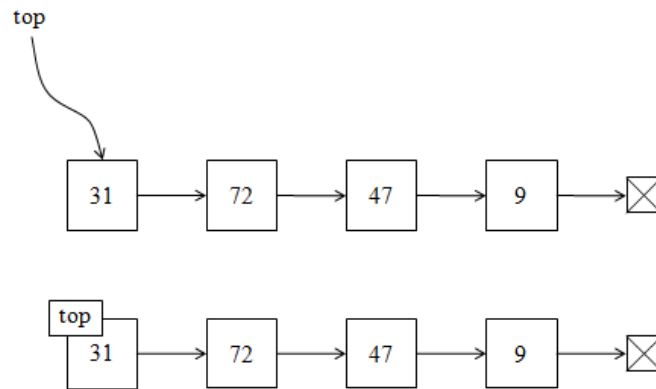


Intro to Linked Lists



Agenda

- Basic Concepts
- Singly-Linked Lists
- Doubly-Linked Lists
- Sorted Linked Lists
- Self-Organizing Linked Lists
- Summary
- Exercises

Basic Concepts

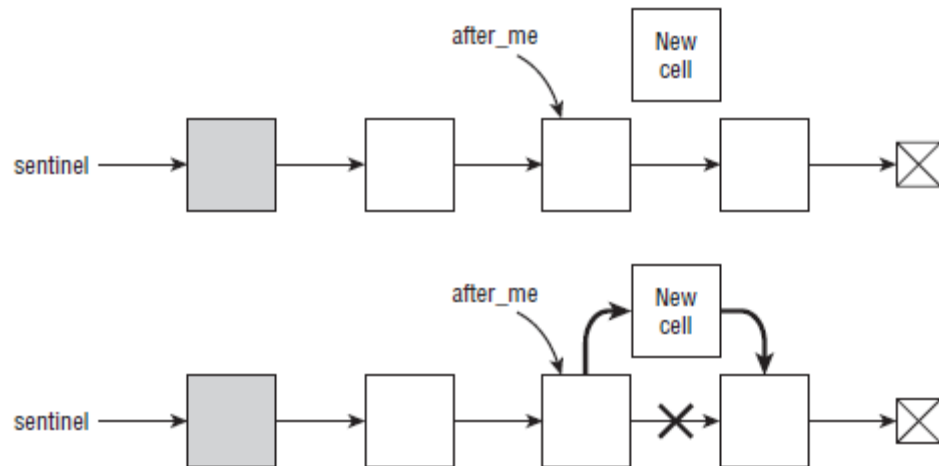
- Cells
- Links

Singly-Linked Lists

- Iteration
- Finding items
- Sentinels

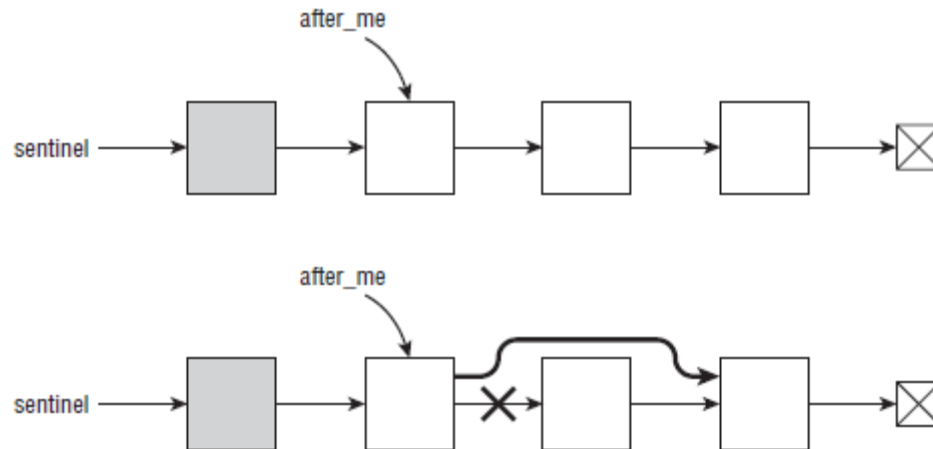
Singly-Linked Lists

- Inserting items



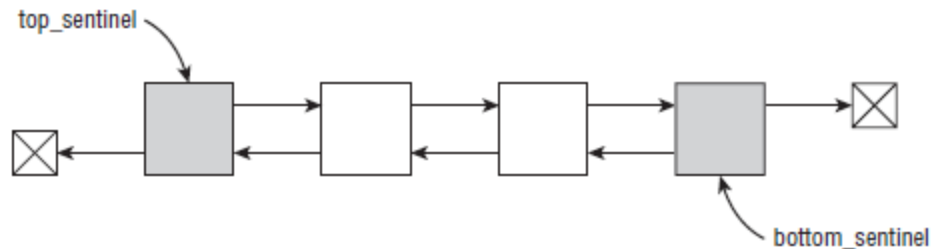
Singly-Linked Lists

- Deleting items



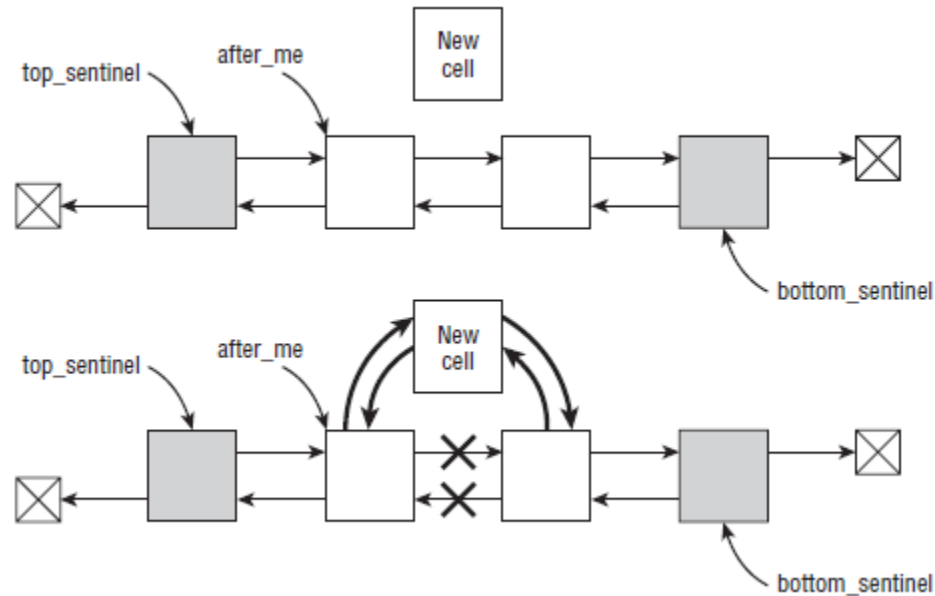
Doubly-Linked Lists

- Iteration
- Finding items
- Sentinels



Doubly-Linked Lists

- Inserting items



Sorted Linked Lists

- Lets you stop searching early

Self-Organizing Linked Lists

- Rearranges items to improve expected performance

Self-Organizing List Methods

- Move To Front
- Swap
- Count
- Hybrid Methods

Summary

- Basic Concepts
- Singly-Linked Lists
- Doubly-Linked Lists
- Sorted Linked Lists
- Self-Organizing Linked Lists

Exercises

- Chapter 3 Exercises 2 – 9.
- Bonus: Chapter 3 Exercises 14, 15.
- Read *Essential Algorithms, 2e* Chapter 3 pages 86 – 102. (The rest of Chapter 3.)