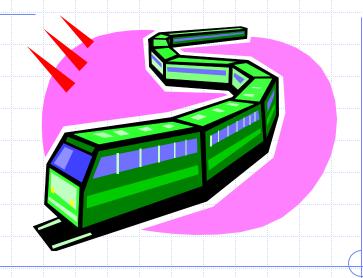
Presentation for use with the textbook Data Structures and Algorithms in Java, 6<sup>th</sup> edition, by M. T. Goodrich, R. Tamassia, and M. H. Goldwasser, Wiley, 2014

# **Doubly Linked Lists**



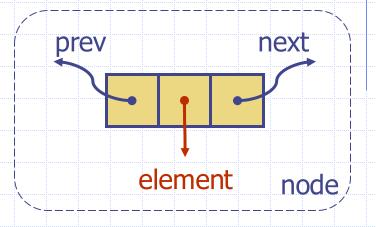
### Reading

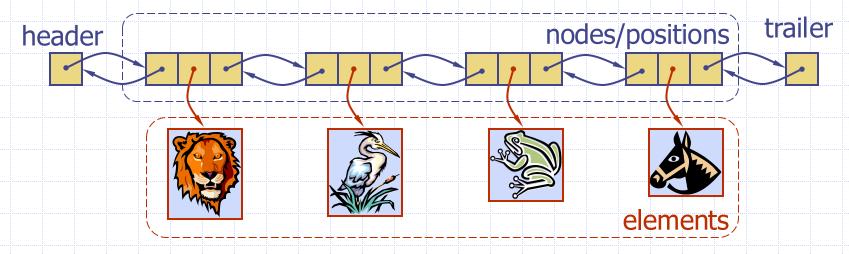
M. T. Goodrich, R. Tamassia and M. H. Goldwasser, Data Structures and Algorithms in Java, 6th Edition, 2014.

■ Chapter 3. Arrays and Linked Lists

## Doubly Linked List

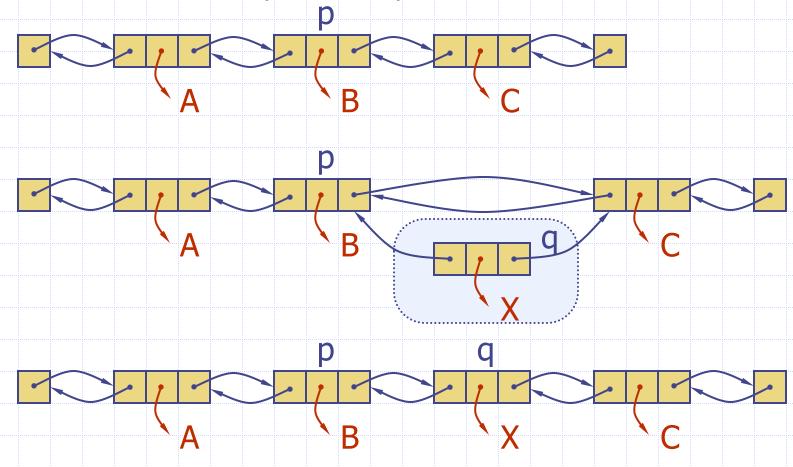
- A doubly linked list can be traversed forward and backward
- Nodes store:
  - element
  - link to the previous node
  - link to the next node
- Special trailer and header nodes





#### Insertion

Insert a new node, q, between p and its successor.



#### Deletion

Remove a node, p, from a doubly linked list.