Linked List (III): Doubly Linked List

CSCD 300 – Data Structures
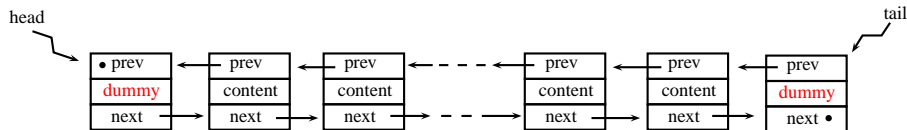
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Goal

In today's lecture, we will demonstrate the construction and other various operations of another type of linked list—Doubly Linked List, where every node has two links, `prev` and `next`, pointing the previous and the next neighbor node.

For easy programming, a doubly linked list often has two dummy nodes, the `head` and `tail` nodes, which occupy the leading and the ending positions of the list but do not contain meaningful content and thus are not counted in the length of the list.

The teaching of today's lecture will be mainly using the attached Java source code to demonstrate the construction and various operations of an example doubly linked list, which of course can also be implemented using other programming languages such as C and C++.