

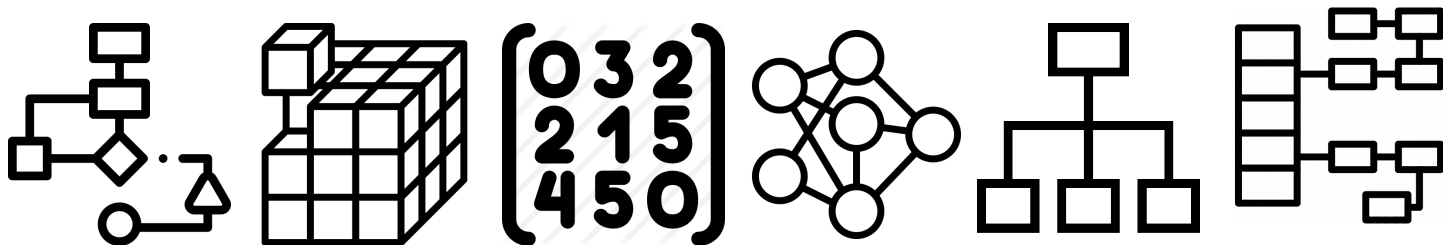
CS211-Algorithms & Data Structures



Taibah University

Dr. Sameer M. Alrehaili

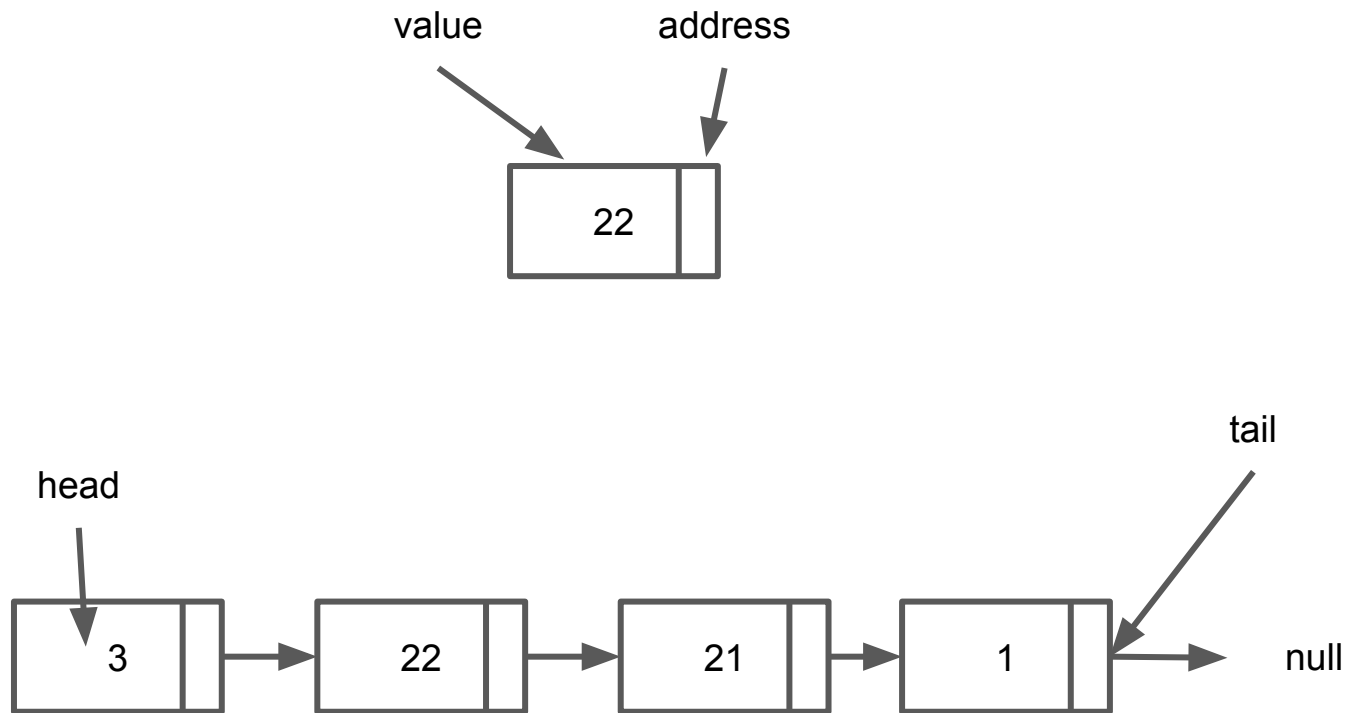
College of Science and Computer Engineering, Yanbu



Outlines

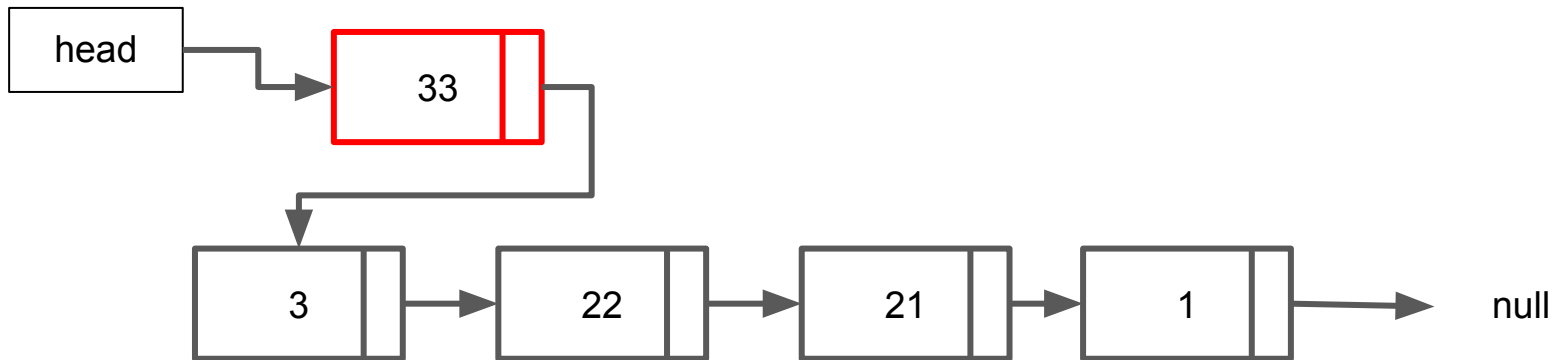
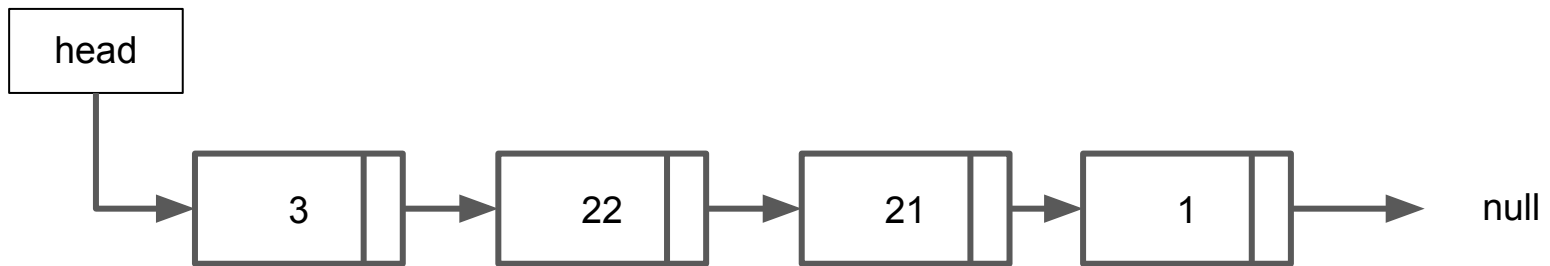
1. Insert at the beginning.
2. Insert at end.
3. Insert after a given node.
4. Remove a node from linked list.
5. Printing all nodes in a linked list.
6. Searching in a linked list.

Linked List



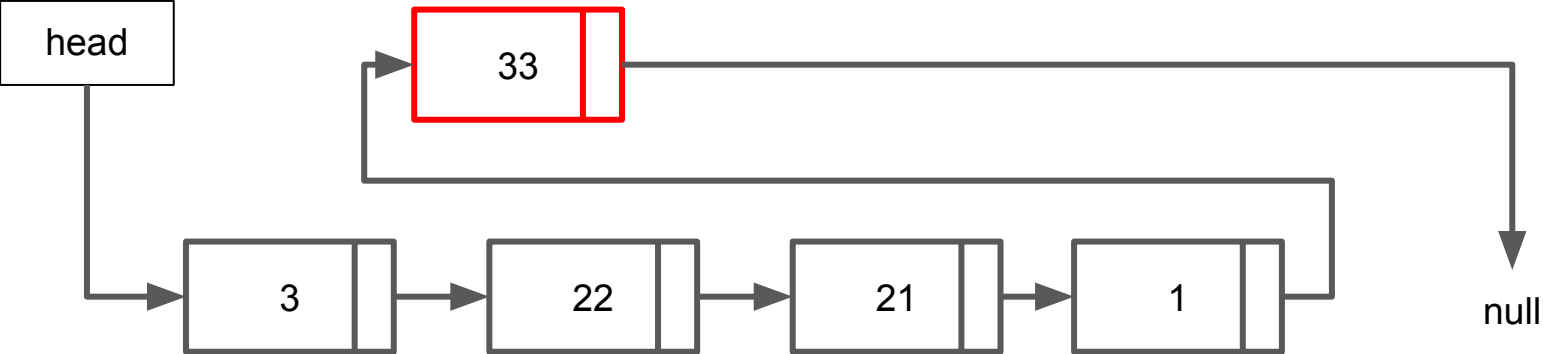
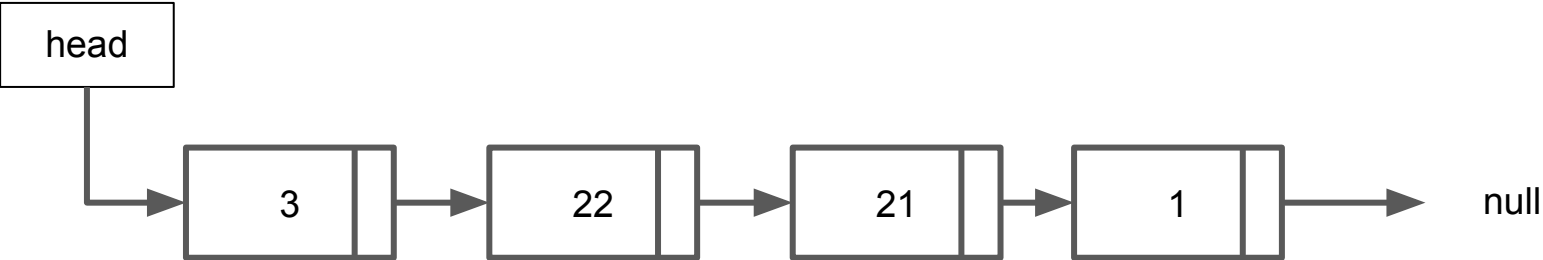
Insertion at the beginning

- Add this node at the beginning of the following linked list



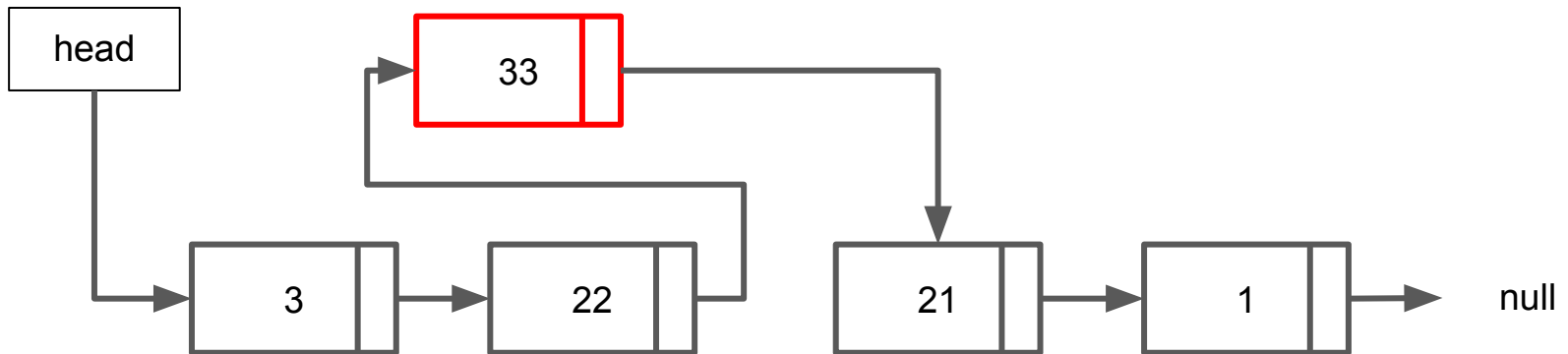
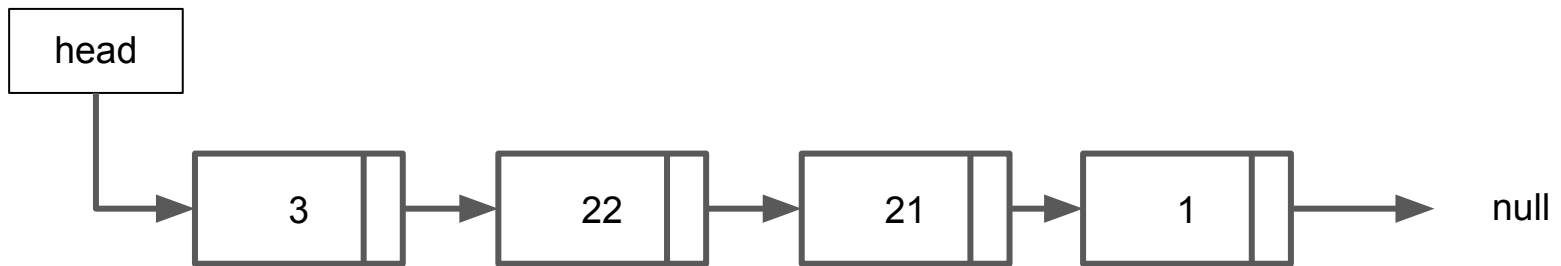
Insertion at end

- Add this node at end of the following linked list



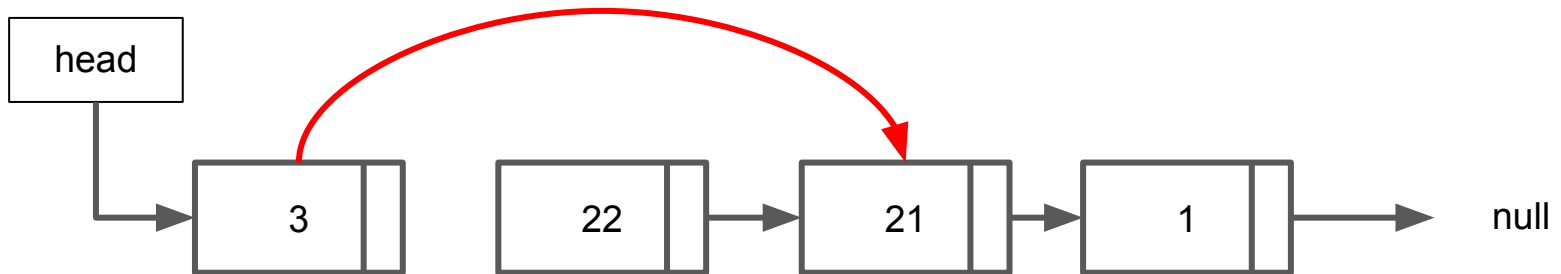
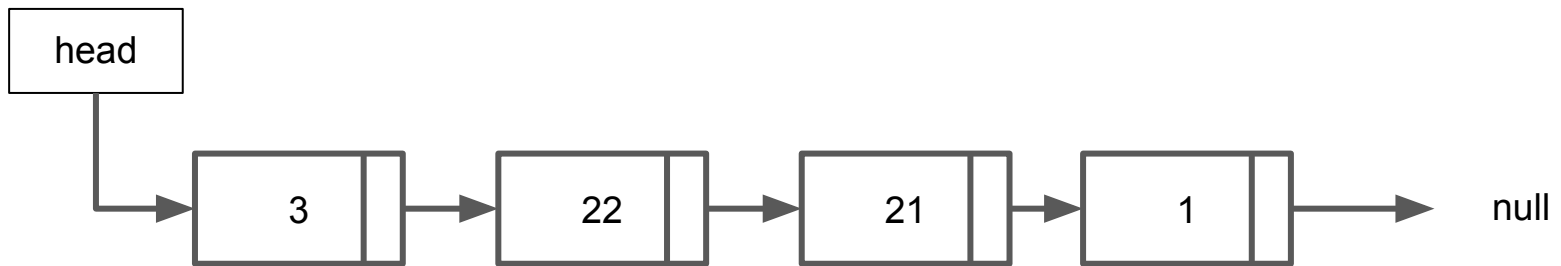
Insertion after a given node

- Add this node after 22 in the following linked list



Deleting from linked list

- Remove the node that contains 22 as value in the following linked list



When to choose Linked list

- When you need to store of elements but do not know their total amount in advance.
- When your application need to often add or remove elements from the beginning or from the end.