

Linked List

A linked list is a linear data structure, in which the elements are not stored at contiguous memory locations.

Nodes represent those data elements, and links or pointers connect each node.

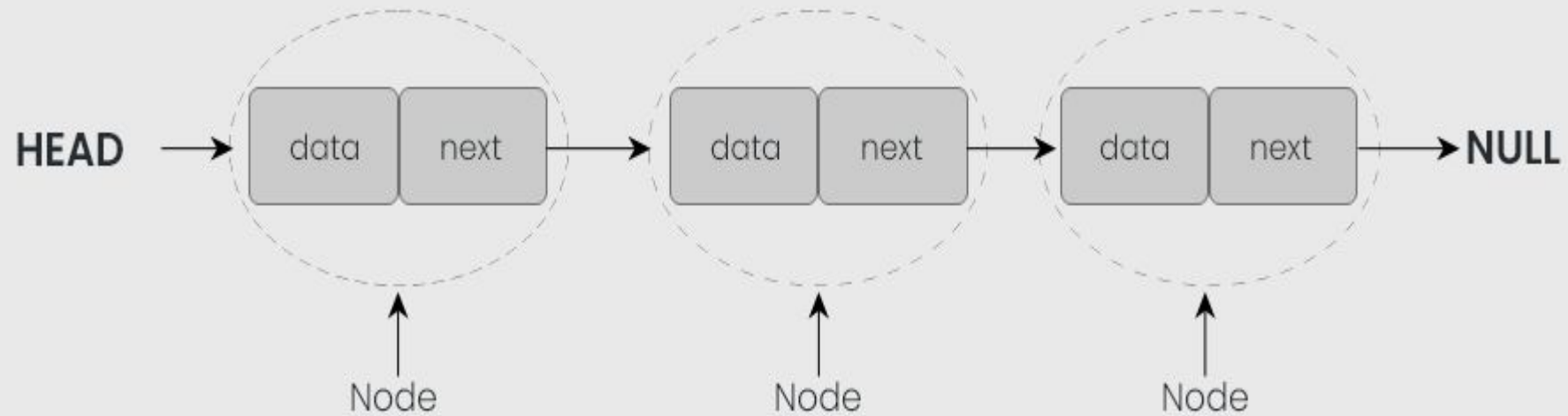
Each node consists of two fields, the information stored in a linked list and a pointer that stores the address of its next node.

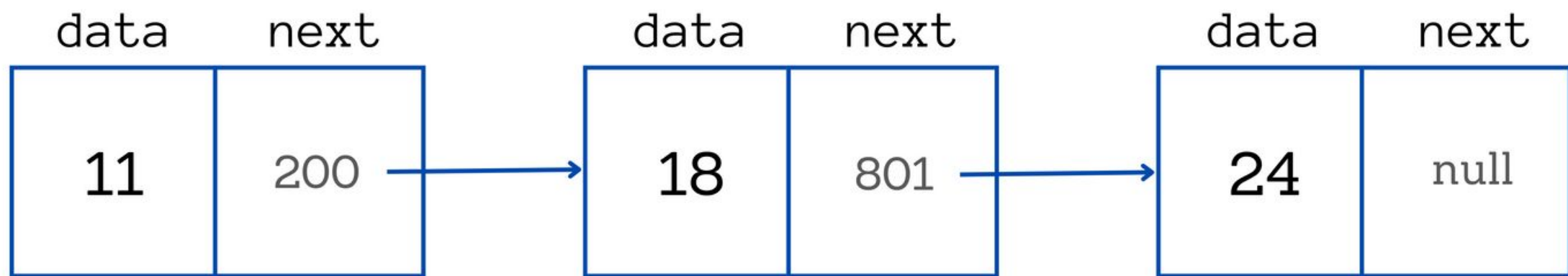
The last node contains null in its second field because it will point to no node.

A linked list can grow and shrink its size, as per the requirement.

It does not waste memory space.

Linked List Data Structure





Basic Operations in the Linked Lists

Insertion – Adds an element at the beginning of the list.

Deletion – Deletes an element at the beginning of the list.

Display – Displays the complete list.

Search – Searches an element using the given key.

Delete – Deletes an element using the given key.

Types of Linked List

1. Singly Linked List
2. Doubly Linked List
3. Circular Linked List
4. Circular Doubly Linked List
5. Header Linked List

