

# Difference Between Singly Linked List and Doubly Linked List

The table shows the difference between Singly Linked List and Doubly Linked List based on various parameters such as memory space, time complexity etc.

## Singly Linked List vs Doubly Linked List

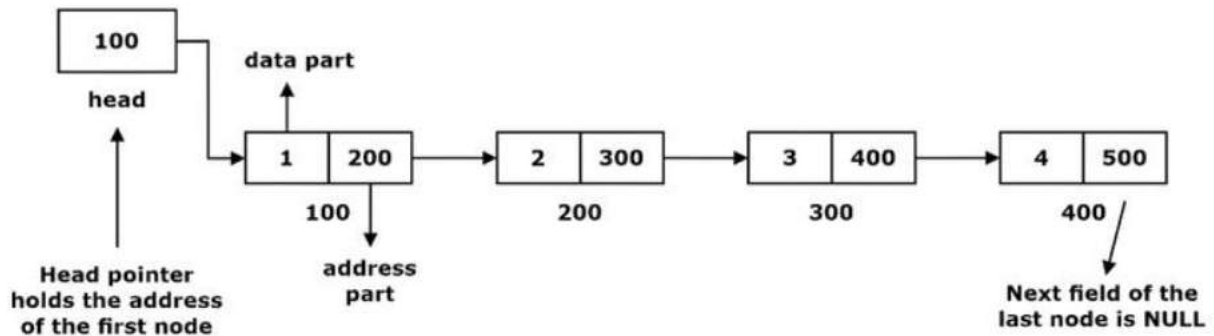
Difference Between Singly Linked List and Doubly Linked List	
Singly Linked List	Doubly Linked List
To handle and operate data, a singly linked list is simpler than a doubly linked list. It is simple to manage data and its location.	To handle and operate data, a doubly linked list is more complex than a singly linked list. Data and addresses are difficult to manage.
Because of the next node, the node pointer addresses only the forward direction. This linked list does not traverse backward. The doubly linked list has unidirectional support.	In the linked list, the node pointer addresses forward and backward. The doubly linked list is bidirectional.
The tail pointer is currently empty. The head and other nodes include data.	The head and tail pointers are both empty. Other nodes include data.
Singly Linked List takes up less memory space.	Doubly Linked List takes up more memory space.
Singly Linked List is less efficient than a doubly-linked list.	Doubly Linked List is more effective.
The singly linked list can only be traversed in one direction.	The doubly linked list can be accessed both ways.

## Singly Linked List and Doubly Linked List

The difference between Singly Linked List and Doubly Linked List is that a singly linked list is a linked list with nodes that each have a data field and a field that points to the node after it in the line of nodes. In comparison, a doubly linked list is a linked list that has the data field, a next field that goes to the next node in the series, and a previous field that points to the first node in the sequence.

## What is a Singly Linked List?

A singly linked list is also known as a linked list. A singly linked list is a collection of nodes, with each node having two parts: the data part and the address part. Because each node refers to another node via its address part, the singly linked can also be called a chain. A singly linked list can be used for a variety of operations, such as insertion, deletion, and traversal.



## What is a Doubly Linked List?

Another type of linked list is a doubly linked list. It is called a doubly linked list because it has two addresses, whereas a singly linked list only has one. It is a list with three parts: one for data and the other two for pointers, namely previous and next. The previous pointer holds the previous node's address, and the next pointer holds the next node's address. As a result, we can say that the list has two references, forward and backwards, to traverse in either direction.

