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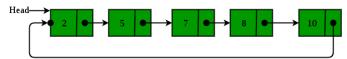
## Circular Linked List | Set 1 (Introduction and Applications)

We have discussed singly and doubly linked lists in the following posts.

Introduction to Linked List & Insertion

Doubly Linked List Introduction and Insertion

Circular linked list is a linked list where all nodes are connected to form a circle. There is no NULL at the end. A circular linked list can be a singly circular linked list or doubly circular linked list.



#### **Advantages of Circular Linked Lists:**

- 1) Any node can be a starting point. We can traverse the whole list by starting from any point. We just need to stop when the first visited node is visited again.
- 2) Useful for implementation of queue. Unlike this implementation, we don't need to maintain two pointers for front and rear if we use circular linked list. We can maintain a pointer to the last inserted node and front can always be obtained as next of last.
- 3) Circular lists are useful in applications to repeatedly go around the list. For example, when multiple applications are running on a PC, it is common for the operating system to put the running applications on a list and then to cycle through them, giving each of them a slice of time to execute, and then making them wait while the CPU is given to another application. It is convenient for the operating system to use a circular list so that when it reaches the end of the list it can cycle around to the front of the list.
- 4) Circular Doubly Linked Lists are used for implementation of advanced data structures like Fibonacci Heap.



#### **Next Posts:**

Circular Linked List | Set 2 (Traversal)

Circular Singly Linked List | Insertion

Please write comments if you find any bug in above code/algorithm, or find other ways to solve the same problem

#### **Recommended Posts:**

Doubly Circular Linked List | Set 1 (Introduction and Insertion)

Circular Queue | Set 2 (Circular Linked List Implementation)

Convert singly linked list into circular linked list

Applications of linked list data structure

Check if a linked list is Circular Linked List

Circular Linked List | Set 2 (Traversal)

Sum of the nodes of a Circular Linked List

Reverse a circular linked list

Deletion from a Circular Linked List

Deletion at different positions in a Circular Linked List

Delete all the even nodes of a Circular Linked List

Sorted insert for circular linked list

Count nodes in Circular linked list

Split a Circular Linked List into two halves

Reverse a doubly circular linked list



Article Tags: Linked List circular linked list

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