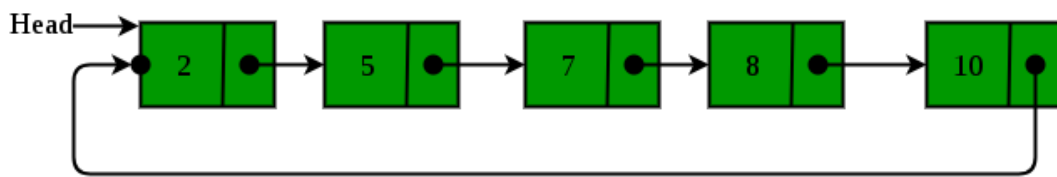# Circular Linked List Traversal in Java

We have discussed Circular Linked List Introduction and Applications, in the previous post on Circular Linked List. In this post, traversal operation is discussed.

In a conventional linked list, we traverse the list from the head node and stop the traversal when we reach NULL. In a circular linked list, we stop traversal when we reach the first node again. Following is the C code for the linked list traversal.

```
/* Function to print nodes in a
given Circular linked list */
static void printList(Node head)
{
    Node temp = head;

    // If linked list is not empty
    if (head != null)
    {

        // Keep printing nodes till we reach the first node
        // again
        do
        {
            System.out.print(temp.data + " ");
            temp = temp.next;
        } while (temp != head);
```

```
        }
    }
```

Complete program to demonstrate traversal. Following are complete programs to demonstrate traversal of circular linked list.

```java
// Java program to implement
// the above approach
class GFG
{

// node
static class Node
{
    int data;
    Node next;
};

/* Function to insert a node
at the beginning of a Circular
linked list */
static Node push(Node head_ref,
                 int data)
{
    Node ptr1 = new Node();
    Node temp = head_ref;
    ptr1.data = data;
    ptr1.next = head_ref;

    /* If linked list is not null
    then set the next of last node */
    if (head_ref != null)
    {
        while (temp.next != head_ref)
            temp = temp.next;
        temp.next = ptr1;
    }
```

```java
        else
            ptr1.next = ptr1;

        head_ref = ptr1;

        return head_ref;
    }

    /* Function to print nodes in a
    given Circular linked list */
    static void printList(Node head)
    {
        Node temp = head;
        if (head != null)
        {
            do
            {
                System.out.print(temp.data + " ");
                temp = temp.next;
            }
            while (temp != head);
        }
    }

    // Driver Code
    public static void main(String args[])
    {
        /* Initialize lists as empty */
        Node head = null;

        /* Created linked list will
           be 11.2.56.12 */
        head = push(head, 12);
        head = push(head, 56);
        head = push(head, 2);
        head = push(head, 11);

        System.out.println("Contents of Circular " +
```

```
                                    "Linked List:");
    printList(head);
}
}
```

Output:

```
Contents of Circular Linked List
11 2 56 12
```