Assignment 3

Write a circular List class which contains the following member functions and then write the main function:

- **Circular_List**: initialize head and tail to Null.

- **~Circular_List**: delete all nodes in the list.

- **isEmpty**: determine whether or not the list is empty.

- **addToHead**: insert a new node at the front of the list.

- **addToTail**: insert a new node at the end of the list.

- **findNode**: find a node with a given value and return its number.

- **deleteFromHead**: delete the first node from the list and return its info if exists.

- **deleteFromTail**: delete the last node from the list and return its info if exists.

- **deleteNode**: delete any node from the list.

- **printList**: print all the nodes in the list.

Write a Doubly List class which contains the following member functions and then write the main function:

- **Doubly_List**: initialize head to Null.

- **~Doubly_List**: delete all nodes from the list.

- **isEmpty**: determine whether or not the list is empty.

- **addToHead**: insert a new node at the front of the list.

- **addToTail**: insert a new node at the end of the list.

- **findNode**: find a node with a given value and return its number.

- **deleteFromHead**: delete the first node from the list and return its info if exists.

- **deleteFromTail**: delete the last node from the list and return its info if exists.

- **deleteNode**: delete any node from the list.

- **printList**: print all the nodes in the list.