PROGRAM

import java.util.\*;

class Dlinkedlist {

public static void main ( String args []) {

LinkedList < Integer > ll = new LinkedList < Integer >(); //Create a LinkedList object ll

ll.add(10); // appends 10 to the list

ll.add(30); // appends 30 to the list

ll.addFirst(0); // adding 0 in first position

ll.addLast(40); // adding 30 in last position

ll.add(2, 20); // adding 20 in second position

System.out.println ( "List After Insertion : " );

ListIterator < Integer > itr = ll.listIterator(); // creating iterator object itr

while ( itr.hasNext()) {

System.out.print( itr.next () + " "); // 0 10 20 30 40

}

System.out.println("\nList from backwards before removing: ");

while(itr.hasPrevious()){

System.out.print(itr.previous() + " "); // 40 30 20 10 0

}

ll.remove ( 0 ); // removing value at 0th position

ll.remove(Integer.valueOf(10)); // removing value 10

System.out.println("\nSize is " + ll.size()); // 3

System.out.println ( "List After Removing : " );

ListIterator < Integer > rti = ll.listIterator();

while ( rti.hasNext ()) {

System.out.print( rti.next ()+" "); // 20 30 40

}

System.out.println("\nList from backwards: ");

while(rti.hasPrevious()){

System.out.print(rti.previous()+" "); // 40 30 20

}

int a;

System.out.println("\nSearching for 40: ");

while(rti.hasNext()){

a = rti.next();

if(a==40){

System.out.println(a); // 40

System.out.println("found at index "+ll.indexOf(a)); //2

}

}

}

}

OUTPUT

List After Insertion :

0 10 20 30 40

List from backwards before removing:

40 30 20 10 0

Size is 3

List After Removing :

20 30 40

List from backwards:

40 30 20

Searching for 40:

40

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