```python
from exceptions import Empty

class LinkedDeque:

    class _Node:
        __slots__ = '_element', '_next'

        def __init__(self,element, next):
            self._element = element
            self._next = next

    def __init__(self):
        self._head = None
        self._tail = None
        self._size = 0

    def __len__(self):
        return self._size
    def is_empty(self):
        return self._size == 0

    def add_first(self,e):
        newest = self._Node(e,None)
        if self.is_empty():
            self._head = newest
            self._tail = newest
        else:
            newest ._next = self._head
        self._head = newest
        self._size += 1

    def add_last(self,e):
        newest = self._Node(e,None)
        if self.is_empty():
            self._head = newest
            self._tail = newest
        else:
            self._tail._next = newest
        self._tail = newest
        self._size += 1

    def remove_first(self):
        if self.is_empty():
            raise Empty('Linked List Empty')
        value = self._head._element
        self._head = self._head._next
        self._size -= 1
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48          if self.is_empty():
49              self._tail = None
50          return value
51
52      def remove_last(self):
53          if self.is_empty():
54              raise Empty('Linked List Empty')
55          thead = self._head
56          i = 0
57          while i < len(self) - 2:
58              thead = thead ._next
59              i += 1
60          self._tail = thead
61          thead = thead._next
62          value = thead._element
63          self._tail._next = None
64          self._size -= 1
65          return value
66
67      def display(self):
68          thead = self._head
69          while thead:
70              print(thead._element, end='-->')
71              thead = thead._next
72          print()
73
74
75  L = LinkedDeque()
76  L.add_last(10)
77  L.add_last(20)
78  L.add_last(30)
79  L.add_last(40)
80  L.display()
81  print('Deleted: ', L.remove_first())
82  L.display()
83  L.add_first(70)
84  L.display()
85  print('Deleted: ', L.remove_last())
86  L.display()
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