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####   PROGRAM TO DEMONSTRATE SINGLY LINKED LIST ITERATOR ##########
class Node:
    def __init__(self,data):
        self.data=data
        self.next=None

class LinkedList:
    def __init__(self):
        self.head=None
        self.size=0

    def __len__(self):
        return len(self.size)

    def __iter__(self):
        return ListIterator(self.head)

    def add(self,item):
        newNode = Node(item)
        newNode.next=self.head
        self.head=newNode
        self.size +=1
    def contains(self,target):
        curNode = self.head
        while curNode is not None and curNode.data != target:
            curNode=curNode.next
        return curNode is not None

    def traversal(self):
        curNode = self.head
        while curNode is not None:
            if(curNode.next != None):
                print(curNode.data,end="->")
            else:
                print(curNode.data,end=".\n")
            curNode=curNode.next

    def RemoveNode(self,target):
        predNode=None
        curNode=self.head
        while curNode is not None and curNode.data != target:
            predNode=curNode
            curNode=curNode.next
        if curNode is not None:
            if curNode is self.head:
                self.head=curNode.next
            else:
                predNode.next=curNode.next


class ListIterator:
    def __init__(self,listhead):
        self.curNode=listhead
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    def __next__(self):
        if self.curNode is None:
            raise StopIteration
        else:
            item=self.curNode.data
            self.curNode=self.curNode.next
            return item

Llist=LinkedList()
Llist.add(10)
Llist.add(20)
Llist.add(30)
Llist.add(40)
Llist.add(50)
Llist.add(60)
print("Linkled list Data:")

for item in Llist:
    print(item)

print(Llist.contains(110))
Llist.RemoveNode(10)
print("After Removal")
print("Linkled list Data:")

for item in Llist:
    print(item)


#########################OUTPUT#########################
'''

Linkled list Data:
60->50->40->30->20->10.
60
50
40
30
20
10
60
False
After Removal
Linkled list Data:
60->50->40->30->20.

'''
```