Nama : Muhammad Iqbal Alghifari

NIM : C2283207015

In [1]:
```
from pythonds.basic.deque import Deque
```

In [2]:
```
d = Deque()
print(d.isEmpty())
```

```
True
```

In [3]:
```
d.addRear(4)
d.addRear('dog')
d.addFront('cat')
d.addFront(True)
print(d.size())
print(d.isEmpty())
```

```
4
False
```

In [4]:
```
d.addRear(8.4)
print(d.removeRear())
print(d.removeFront())
```

```
8.4
True
```

In [6]:
```
class Node:
    def __init__(self,initdata):
        self.data = initdata
        self.next = None

    def getData(self):
        return self.data

    def getNext(self):
        return self.next

    def setData(self,newdata):
        self.data = newdata

    def setNext(self,newnext):
        self.next = newnext
```

In [7]:

```
class UnorderedList:

    def __init__(self):
        self.head = None

    def isEmpty(self):
        return self.head == None

    def add(self,item):
        temp = Node(item)
        temp.setNext(self.head)
        self.head = temp

    def size(self):
        current = self.head
        count = 0
        while current != None:
            count = count + 1
            current = current.getNext()
        return count

    def search(self,item):
        current = self.head
        found = False

        while current != None and not found:
            if current.getData() == item:
                found = True
            else:
                current = current.getNext()
        return found

    def remove(self,item):
        current = self.head
        previous = None
        found = False
        while not found:
            if current.getData() == item:
                found = True

            else:
                previous = current
                current = current.getNext()
            if previous == None:
                self.head = current.getNext()
            else:
                previous.setNext(current.getNext())
```

In [8]:
```
mylist = UnorderedList()
mylist.add(31)
mylist.add(77)
mylist.add(17)
mylist.add(93)
mylist.add(26)
mylist.add(54)
print(mylist.size())
print(mylist.search(93))
print(mylist.search(100))
mylist.add(100)
print(mylist.search(100))
print(mylist.size())
mylist.remove(54)
print(mylist.size())
mylist.remove(93)
print(mylist.size())
mylist.remove(31)
print(mylist.size())
print(mylist.search(93))
```

```
6
True
False
True
7
6
5
3
False
```

In [ ]:
```

```