

CSE220

ID: 20301138.

Making a Node class:

Class Node:

```
def __init__(self):
```

```
    self.data = 0
```

```
    self.next = None
```

Counting Nodes:

```
def num(self, head):
```

current node = head
head = head.next
count += 1

total = count + 1

while self.head is not None

head = head.next

count += 1

total += 1

return total

Finding mid node:

```
def mid(head):
```

if head is None:

```
def showlist(selfhead):  
    if self.head is None:  
        print("Empty list")  
    else:  
        new-node = self.head  
        while new-node is not None not None:  
            print(new-node)  
            new-node = new-node.next
```

```
def reverse(selfhead):  
    tmp1 = self.head  
    tmp2 = None  
  
    while (tmp1 is not None):  
        next = tmp1.next  
        tmp1.next = tmp2  
        tmp2 = tmp1  
        tmp1 = next  
    self.head = tmp2 # tail value will  
                    # become null.
```

all(?)

test & define midlserf():

total = 0

: (true) - nh = self. head.

: (false) - nh = None

while nh is not None:

total + 1

nh = nh.next

if self.head is not None:

nh = self.head

for i in range(1, count):

self.head = self.head.next

if (i == count):

i = self.head

self.head = None

else: self.head = None

: (None) bird

: (None) None

$\text{list}^{\text{①}} = \text{myList}()$

list1. num(1)

list1. num(2)

list1. num(3)

list1. num(4)

list1. num(5)

~~list1. showList()~~

list1. reverse()

list1. sum()

list1. show(list)