

情報処理

後期 第9回課題

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1.

プログラム

```
from linked_list import LinkedList
from linked_list import Node

def ordering(linked_list):
    sorted_list = LinkedList()
    current = linked_list.head

    while current is not None:
        data = current.data
        if sorted_list.head is None or data <
sorted_list.head.data:
            sorted_list.head = Node(data,
sorted_list.head)
        else:
            sorted_current = sorted_list.head
            while sorted_current.next is not None and
sorted_current.next.data < data:
                sorted_current = sorted_current.next
            sorted_current.next = Node(data,
sorted_current.next)
            current = current.next

    linked_list.head = sorted_list.head

original_list = LinkedList()
original_list.append(3)
original_list.append(1)
original_list.append(4)
original_list.append(2)

print("Before ordering:")
current = original_list.head
while current is not None:
    print(current.data, end=" -> ")
    current = current.next
print("End of list")

ordering(original_list)
```

```
print("After ordering:")
current = original_list.head
while current is not None:
    print(current.data, end=" -> ")
    current = current.next
print("End of list")
```

実行結果

```
Before ordering:
3 -> 1 -> 4 -> 2 -> End of list
After ordering:
1 -> 2 -> 3 -> 4 -> End of list
```
