



链滴

linkedList 实现的 queue

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原文链接: <https://ld246.com/article/1538559594215>

来源网站: [链滴](#)

许可协议: [署名-相同方式共享 4.0 国际 \(CC BY-SA 4.0\)](#)

```
package queue

import (
    "github.com/spf13/cast"
)

func main() {

}

type LinkedQueue struct {
    *Node
    Size int
}

type Node struct {
    head *Node
    tail *Node
    elem interface{}
    next *Node
}

func Init() *LinkedQueue {
    return &LinkedQueue{&Node{}, 0}
}

func (this *LinkedQueue) GetSize() int {
    return this.Size
}

func (this *LinkedQueue) IsEmpty() bool {
    return this.Size == 0
}

func (this *LinkedQueue) EnQueue(elem interface{}) {
    if this.tail == nil {
        this.tail = &Node{elem: elem}
        this.head = this.tail
    } else {
        this.tail.next = &Node{elem: elem}
        this.tail = this.tail.next
    }
    this.Size++
}

func (this *LinkedQueue) DeQueue() interface{} {
    if this.IsEmpty() {
        panic("out of range")
    }
    retNode := this.head
    this.head = this.head.next
    retNode.next = nil
    if this.head == nil {
```

```
    this.tail = nil
}
this.Size--
return retNode.elem
}

func (this *LinkedQueue) GetFront() interface{} {
    if this.IsEmpty() {
        panic("out of range ")
    }
    return this.head.elem
}

func (this *LinkedQueue) ToString() string {
    s := "queue front "
    cur := this.head
    for i := 0; i < this.Size; i++ {
        s += cast.ToString(cur.elem) + "->"
        cur = cur.next
    }
    s += "tail"
    return s
}
```