

Golang Homework 5

Yi-Ting Shih (111550013)
National Yang Ming Chaio Tung University
ytshih@cs.nycu.edu.tw

Code

```
package reverse

import "unicode/utf8"

func swap(a *byte, b *byte) {
    *a ^= *b
    *b ^= *a
    *a ^= *b
}

func reverse(b []byte) {
    for i := 0; i < len(b); {
        _, sz := utf8.DecodeRune(b[i:])
        l := i
        r := i + sz - 1
        for l < r {
            swap(&b[l], &b[r])
            l++
            r--
        }
        i += sz
    }

    l := 0
    r := len(b) - 1
    for l < r {
        swap(&b[l], &b[r])
        l++
        r--
    }
}
```

This code doesn't allocate new memory except array subscript `i`, `l`, `r`.

Result

```
> go test -v
=== RUN   TestReverse
--- PASS: TestReverse (0.00s)
PASS
ok      reverse 0.001s
```