

Nama : Bagas Tri Wibowo

NIM : 1301194051

Kelas : IF-43-04

Code :

```
0.go > {} main
1  package main
2
3  import (
4      "fmt"
5  )
6
7  const MAXSIZE = 2019202
8
9  type RecType struct {
10     count, size int
11 }
12 type ArrType [MAXSIZE]RecType
13
14 func iSort(tab *ArrType, nsize int) {
15     var i, t, j int
16
17     i = 1
18     for i < nsize {
19         t = tab[i].count
20         j = i - 1
21         for j >= 0 && tab[j].count > t {
22             tab[j+1].count = tab[j].count
23             j = j - 1
24         }
25         tab[j+1].count = t
26         i = i + 1
27     }
28 }
29
30 func mSort(tab *ArrType, nsize int) {
31
32     for i := 0; i < nsize-1; i++ {
33         Min := i
34         for j := i + 1; j <= nsize-1; j++ {
35             if tab[j].size > tab[Min].size {
36                 Min = j
37             }
38         }
39         t := tab[Min].size
40         tab[Min].size = tab[i].size
41         tab[i].size = t
42     }
43 }
44 }
45
46 func isFound(tab ArrType, n int, v int) bool {
47     kr := 0
48     kn := n
49     found := false
50     for kr < kn && !found {
51         mid := (kr + kn) / 2
52         if tab[mid].count < v {
53             kr = mid + 1
54         } else if tab[mid].count > v {
55             kn = mid
56         } else {
57             found = true
58         }
59     }
60     return found
61 }
62 }
```

Contoh Program Utama :

```
63 func main() {
64     var data ArrType
65     var n, key int
66
67     fmt.Printf("Jumlah data : ")
68     fmt.Scan(&n)
69     fmt.Printf("Data Count :\n")
70     for i := 0; i < n; i++ {
71         fmt.Scan(&data[i].count)
72     }
73     fmt.Printf("Data size : \n")
74     for i := 0; i < n; i++ {
75         fmt.Scan(&data[i].size)
76     }
77
78     iSort(&data, n)
79     fmt.Printf("\nList Count sesudah diurutkan\n")
80     for i := 0; i < n; i++ {
81         fmt.Print(data[i].count, " ")
82     }
83
84     mSort(&data, n)
85     fmt.Printf("\nList size sesudah terurut\n")
86     for i := 0; i < n; i++ {
87         fmt.Print(data[i].size, " ")
88     }
89
90     fmt.Printf("\nNilai key data count yang dicari : \n")
91     fmt.Scan(&key)
92
93     status := isFound(data, n, key)
94     fmt.Printf("\nApakah nilai tersebut ada ?\n%\v\n", status)
95     fmt.Printf("\nNama :Bagas Tri Wibowo\nNIM :1301194051")
96 }
97 }
```

Contoh Input

Jumlah data : 10

Data Count :

10 6 7 9 8 3 2 1 4 5

Data size :

9 10 5 7 8 6 2 1 3 4

Contoh Output :

```
D:\GOPATH\src\Tugas Modul 9>go run 9.go
Jumlah data : 10
Data Count :
10 6 7 9 8 3 2 1 4 5
Data size :
9 10 5 7 8 6 2 1 3 4

List Count sesudah diurutkan
1 2 3 4 5 6 7 8 9 10
List size sesudah terurut
10 9 8 7 6 5 4 3 2 1
Nilai key data count yang dicari :
10

Apakah nilai tersebut ada ?
true

Nama :Bagas Tri Wibowo
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D:\GOPATH\src\Tugas Modul 9>
```

Contoh lain :

```
D:\GOPATH\src\Tugas Modul 9>go run 9.go
Jumlah data : 6
Data Count :
-4 -2 -3 2 1 5
Data size :
4 -4 3 6 9 4

List Count sesudah diurutkan
-4 -3 -2 1 2 5
List size sesudah terurut
9 6 4 4 3 -4
Nilai key data count yang dicari :
3

Apakah nilai tersebut ada ?
false

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```