

**LAPORAN PRAKTIKUM
ALGORITMA DAN PEMROGRAMAN 1**

**MODUL 9
“IF-THEN”**



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A. GUIDED (contoh soal, berdasarkan dari modul yang diberikan)

Soal 1

```
package main

import "fmt"

func main() {
    var bilangan int
    fmt.Scan(&bilangan)
    if bilangan < 0 {
        bilangan = -bilangan
    }
    fmt.Print(bilangan)
}
```

Output

```
PS C:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5> go run "c:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5\Soal1\1.go"
10
10
PS C:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5> go run "c:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5\Soal1\1.go"
-3
-3
PS C:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5> go run "c:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5\Soal1\1.go"
-9999
9999
PS C:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5>
```

Deskripsi: Program di atas adalah program untuk menghitung nilai absolut atau mutlak dari suatu bilangan.

Soal 2

```
package main

import "fmt"

func main() {
    var a int
    var teks string
    fmt.Scan(&a)
    teks = "negatif"
    if a > 0 {
        teks = "positif"
    }
    fmt.Println(teks)
}
```

Output

```
PS C:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5> go run "c:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5\Soal2\2.go"
10
positif
PS C:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5> go run "c:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5\Soal2\2.go"
-3
negatif
PS C:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5> go run "c:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5\Soal2\2.go"
5
positif
PS C:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5> go run "c:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5\Soal2\2.go"
0
negatif
PS C:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5>
```

Deskripsi : Program di atas adalah program untuk menentukan suatu bilangan yang diberikan pengguna untuk mengetahui bilangan itu positif atau negatif.

Soal 3

```
package main

import "fmt"

func main() {
    var a int
    var hasil bool
    fmt.Scan(&a)

    if a < 0 && a%2 == 0 {
        hasil = true
    }
    fmt.Print(hasil)
}
```

Output

```
PS C:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5> go run "c:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5\Soal3\3.go"
10
false
PS C:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5> go run "c:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5\Soal3\3.go"
-3
false
PS C:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5> go run "c:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5\Soal3\3.go"
-4
true
PS C:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5> go run "c:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5\Soal3\3.go"
0
false
PS C:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5> go run "c:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5\Soal3\3.go"
-2
true
PS C:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5> 
```

Deskripsi: Program di atas adalah program untuk menentukan apakah bilangan yang diberikan pengguna adalah bilangan genap negative (true) atau bukan genap negatif (false)

B. UNGUIDED (soal tugas, berdasarkan file tugas yang diberikan)

Soal 1

```
package main

import "fmt"

func main() {
    var motor int
    fmt.Scan(&motor)
    jumlahmotor := motor / 2
    if motor%2 != 0 {
        jumlahmotor += 1
    }
    fmt.Println(jumlahmotor)
}
```

Output

```
PS C:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5> go run "c:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5\B_Soal1\1.go"
10
5
PS C:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5> go run "c:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5\B_Soal1\1.go"
1
1
PS C:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5> go run "c:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5\B_Soal1\1.go"
25
13
PS C:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5> go run "c:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5\B_Soal1\1.go"
9
5
PS C:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5> █
```

Deskripsi : Program di atas adalah program untuk menentukan jumlah motor yang diperlukan untuk touring, yang diman setiap motor dirancang untuk membawa dua orang untuk setiap motor.

Soal 2

```
package main

import "fmt"

func main() {
    var n int
    fmt.Scan(&n)
    if n%2 == 0 && n < 0 {
        fmt.Println("genap negatif")
    } else {
        fmt.Println("bukan ")
    }
}
```

Output

```
PS C:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5> go run "c:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5\B_Soa12\2.go"
10
bukan
PS C:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5> go run "c:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5\B_Soa12\2.go"
-4
genap negatif
PS C:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5> go run "c:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5\B_Soa12\2.go"
0
bukan
PS C:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5> go run "c:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5\B_Soa12\2.go"
-2
genap negatif
PS C:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5> |
```

Deskripsi : Program di atas dibuat untuk menentukan apakah bilangan yang di berikan genap negative atau bukan.

Soal 3

```
package main

import (
    "fmt"
)

func main() {
    var x, y int
    fmt.Print("x: ")
    fmt.Scan(&x)
    fmt.Print("y: ")
    fmt.Scan(&y)

    var xFaktorY bool
    if y%x == 0 {
        xFaktorY = true
    } else {
        xFaktorY = false
    }

    var yFaktorX bool
    if x%y == 0 {
        yFaktorX = true
    } else {
        yFaktorX = false
    }

    fmt.Println(xFaktorY)
    fmt.Println(yFaktorX)
}
```

Output

```
PS C:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5> go run "c:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5\B_Soal3\3.go"
x: 10
y: 5
false
true
PS C:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5> go run "c:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5\B_Soal3\3.go"
x: 3
y: 21
false
true
PS C:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5> go run "c:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5\B_Soal3\3.go"
x: 4
y: 4
true
true
PS C:\Users\MyBook Z Series\OneDrive\Documents\SEMESTER 1 TEL-U\ALPRO 1\GOLANG\Laprak5>
```

Deskripsi : Program di atas dibuat untuk memeriksa apakah satu bilangan merupakan faktor dari bilangan lainnya. Faktor berarti bilangan tersebut habis membagi bilangan lain.