

LAPORAN PRAKTIKUM
Algoritma Pemrograman

MODUL 13
Repeat-until



Disusun oleh:
Cofa Xavier Marvel
109082500001
S1IF-13-04

PROGRAM STUDI S1 INFORMATIKA
FAKULTAS INFORMATIKA
TELKOM UNIVERSITY PURWOKERTO
2025

L

1. Guided 1

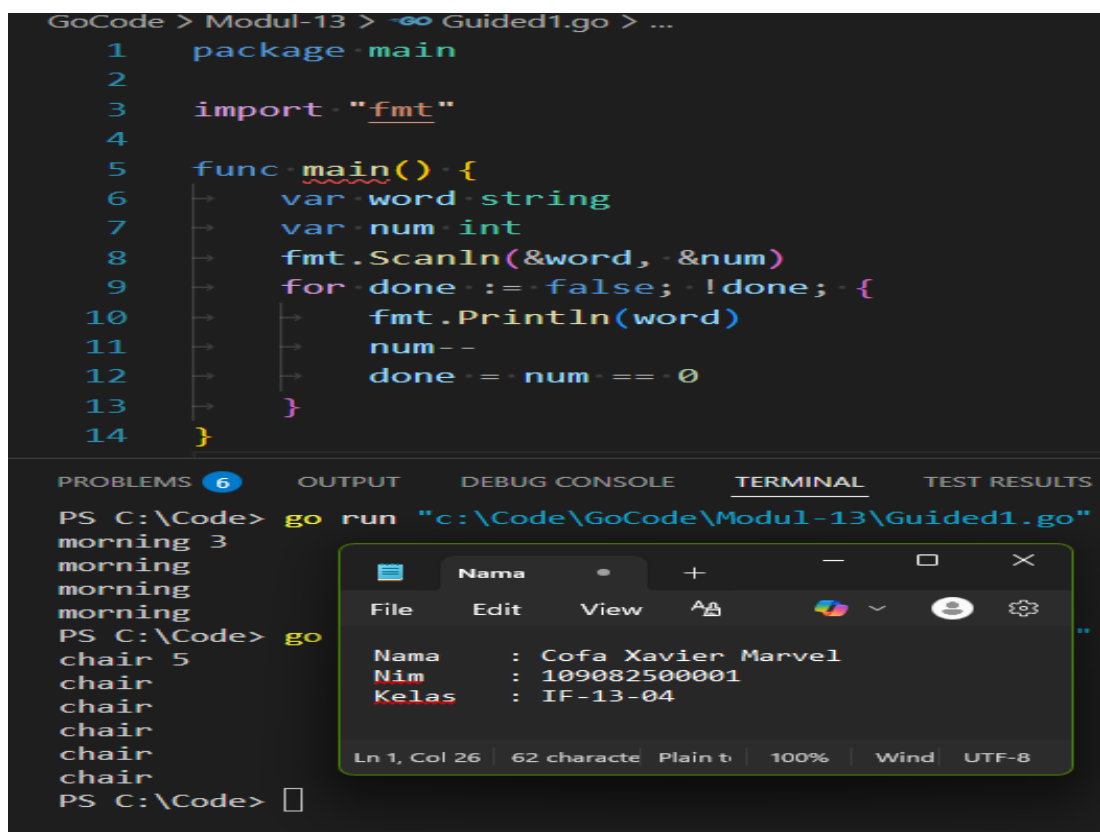
Source Code

```
package main

import "fmt"

func main() {
    var word string
    var num int
    fmt.Scanln(&word, &num)
    for done := false; !done; {
        fmt.Println(word)
        num--
        done = num == 0
    }
}
```

Screenshoot program



```
GoCode > Modul-13 > GoCode\Modul-13\Guided1.go > ...
1  package main
2
3  import "fmt"
4
5  func main() {
6      var word string
7      var num int
8      fmt.Scanln(&word, &num)
9      for done := false; !done; {
10         fmt.Println(word)
11         num--
12         done = num == 0
13     }
14 }
```

PROBLEMS 6 OUTPUT DEBUG CONSOLE TERMINAL TEST RESULTS

```
PS C:\Code> go run "c:\Code\GoCode\Modul-13\Guided1.go"
morning 3
morning
morning
morning
PS C:\Code> go
chair 5
chair
chair
chair
chair
chair
chair
PS C:\Code>
```

Nama : Cofa Xavier Marvel
Nim : 109082500001
Kelas : IF-13-04

Ln 1, Col 26 | 62 character | Plain text | 100% | Window | UTF-8

Deskripsi program

This program repeatedly prints word, and decreases num by 1 until num is equal to 0.

2. Guided 2

Source Code

```
package main

import "fmt"

func main() {
    var num int
    for posi := false; !posi; {
        fmt.Print("enter an int:")
        fmt.Scan(&num)
        posi = num > 0
    }
    fmt.Print(num, " is a positive int")
}
```

Screenshoot program

```
GoCode > Modul-13 > GoCode\Modul-13\Guided2.go > ...
1 package main
2
3 import "fmt"
4
5 func main() {
6     var num int
7     for posi := false; !posi; {
8         fmt.Print("enter an int:")
9         fmt.Scan(&num)
10        posi = num > 0
11    }
12    fmt.Print(num, " is a positive int")
13 }
14
```

PROBLEMS 8 OUTPUT DEBUG CONSOLE TERMINAL TEST RESULTS PORTS

```
PS C:\Code> go run "c:\Code\GoCode\Modul-13\Guided2.go"
enter an int:-5
enter an int:-2
enter an int:-2
enter an int:0
enter an int:5
5 is a positive int
PS C:\Code> go run "c:\Code\GoCode\Modul-13\Guided2.go"
enter an int:17
17 is a positive int
PS C:\Code>
```

Nama : Cofa Xavier Marvel
Nim : 109082500001
Kelas : IF-13-04

Ln 1, Col 26 | 62 character | Plain text | 100% | Wind | UTF-8

Deskripsi program

This program repeats until posi is true, posi is true if the num given is greater than zero.

Guided 3

Source Code

```
package main

import "fmt"

func main() {
    var num1, num2 int
    fmt.Scan(&num1, &num2)

    for num1 > 0 {
        num1 -= num2
        fmt.Println(num1)
    }

    fmt.Println(num1 == 0)
}
```

Screenshoot program

```
GoCode > Modul-13 > GoCode\Modul-13\Guided3.go > main
1 package main
2
3 import "fmt"
4
5 func main() {
6     var num1, num2 int
7     fmt.Scan(&num1, &num2)
8
9     for num1 > 0 {
10        num1 -= num2
11        fmt.Println(num1)
12    }
13
14    fmt.Println(num1 == 0)
15 }

PROBLEMS 10 OUTPUT DEBUG CONSOLE TERMINAL TEST RESULTS PORTS
PS C:\Code> go run "c:\Code\GoCode\Modul-13\Guided3.go"
15 3
12
9
6
3
0
true
PS C:\Code> go run "c:\Code\GoCode\Modul-13\Guided3.go"
5 2
3
1
-1
false
PS C:\Code> go run "c:\Code\GoCode\Modul-13\Guided3.go"
25 5
20
15
10
5
0
true
```

Nama

File Edit View

Nama : Cofa Xavier Marvel
Nim : 109082500001
Kelas : IF-13-04

Ln 1, Col 26 | 62 character | Plain text | 100% | Window | UTF-8

Deskripsi program

this program finds if num1 is a multiple of num2, it does this through repeatedly decreasing num1 by num2 and if num1 is zero then num1 is a multiple of num2 if it is not zero then it is not a multiple of num2.

TUGAS

Tugas 1

Source code

```
package main

import "fmt"

func main() {
    var len, num int
    fmt.Scan(&num)

    for num > 0 {
        len++
        num /= 10
    }
    fmt.Print(len)
}
```

Screenshoot program

```
GoCode > Modul-13 > Tugas1.go > ...
1  package main
2
3  import "fmt"
4
5  func main() {
6      var len, num int
7      fmt.Scan(&num)
8
9      for num > 0 {
10         len++
11         num /= 10
12     }
13     fmt.Print(len)
14 }
15
```

Nama

File Edit View

Nama : Cofa Xavier Marvel
Nim : 10908250001
Kelas : IF-13-04

Ln 1, Col 26 | 62 character | Plain text | 100%

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL TEST RESULTS PC

```
PS C:\Code> go run "c:\Code\GoCode\Modul-13\Tugas1.go"
5
1
PS C:\Code> go run "c:\Code\GoCode\Modul-13\Tugas1.go"
234
3
PS C:\Code> go run "c:\Code\GoCode\Modul-13\Tugas1.go"
78787
5
PS C:\Code> go run "c:\Code\GoCode\Modul-13\Tugas1.go"
1894256
7
PS C:\Code> 
```

Deskripsi program

This program finds the length of a integer by repeatedly increasing len by 1 and dividing the integer by 10 until it is equal to 0.

Tugas 2

Source code

```
package main

import (
```

```
    "fmt"  
    "math"  
)  
  
func main() {  
    var dec float64  
    fmt.Scan(&dec)  
    num := dec  
    fmt.Printf("Ceiling = %.2f\n", math.Ceil(num))  
  
    for i := int(dec * 10); i <= int(math.Ceil(num)*10); i++ {  
        fmt.Printf("%.1f\n", dec)  
        dec += 0.1  
    }  
}
```

Screenshoot program


```
GoCode > Modul-13 > Tugas2.go > ...
1 package main
2
3 import (
4     "fmt"
5     "math"
6 )
7
8 func main() {
9     var dec float64
10    fmt.Scan(&dec)
11    num := dec
12    fmt.Printf("Ceiling = %.2f\n", math.Ceil(num))
13
14    for i := int(dec * 10); i <= int(math.Ceil(num)*10); i++ {
15        fmt.Printf("%.1f\n", dec)
16        dec += 0.1
17    }
18 }
```

0.2
Ceiling = 1.00
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
PS C:\Code> go run "c:\Code\GoCode\Modul-13\Tugas2.go"
2.7
Ceiling = 3.00
2.7
2.8
2.9
3.0
PS C:\Code>

Nama

File Edit View

Nama : Cofa Xavier Marvel
Nim : 109082500001
Kelas : IF-13-04

Ln 1, Col 26 62 character Plain t 100% Wind UTF-8

Deskripsi program

This program increments a decimal by one until it is equal to the rounded value. It does this through converting the dec and the ceiling of dec into ints and multiplying them by ten, this process is used to better accuracy in the repeat until loop, then the program repeats the process dec print dec, dec plus 0.1, and i plus 1 until i is greater than the int multiple of ten ceiling of dec.

Tugas 3

Source code

```
package main

import "fmt"

func main() {
    var Donors, Donated, TotCollected, Goal int

    fmt.Scan(&Goal)

    for ; Goal > 0; Goal -= Donated {
        fmt.Scan(&Donated)
        Donors++
        TotCollected += Donated
        fmt.Printf("Donor %d: Donated %d. Total collected: %d\n", Donors, Donated,
TotCollected)
    }
    if Goal < 0 {
        fmt.Printf("\nTarget reached! Total donation: %d from %d donors.",
TotCollected, Donors)
    }
}
```

Screenshoot program

```
GoCode > Modul-13 > Tugas3.go > ...
1  package main
2
3  import "fmt"
4
5  func main() {
6      var Donors, Donated, TotCollected, Goal int
7
8      fmt.Scan(&Goal)
9
10     for ; Goal > 0; Goal -= Donated {
11         fmt.Scan(&Donated)
12         Donors++
13         TotCollected += Donated
14         fmt.Printf("Donor %d: Donated %d. Total collected: %d\n", Donors, Donated, TotCollected)
15     }
16     if Goal < 0 {
17         fmt.Printf("\nTarget reached! Total donation: %d from %d donors.", TotCollected, Donors)
18     }
19 }
```

PROBLEMS 4 OUTPUT DEBUG CONSOLE TERMINAL TEST RESULTS PORTS

```
PS C:\Code> go run "c:\Code\GoCode\Modul-13\Tugas3.go"
200
300
Donor 1: Donated 300. Total collected: 300

Target reached! Total donation: 300 from 1 donors.
PS C:\Code> go run "c:\Code\GoCode\Modul-13\Tugas3.go"
300
100
Donor 1: Donated 100. Total collected: 100
50
Donor 2: Donated 50. Total collected: 150
200
Donor 3: Donated 200. Total collected: 350

Target reached! Total donation: 350 from 3 donors.
```

Nama

File Edit View AA 100% Wind UTF-8

Nama : Cofa Xavier Marvel
Nim : 109082500001
Kelas : IF-13-04

Ln 1, Col 26 62 character Plain t 100% Wind UTF-8

Deskripsi program

This program collects the amount donated and number of the donators until it reaches the goal then show the number of donators a total of donations.

It does this through first getting the donation goal then it repeatedly Scans for donations in the form of integers, increasing the number of donors by one, increasing the total collected by the donation given, and printing the donor number, amount donated, and total collected donations until the goal, which has been decreased by the donations, is lesser than zero.