

**LAPORAN PRAKTIKUM ALGORITMA
DAN PEMROGRAMAN 1**

MODUL No.13

REPEAT UNTIL



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PROGRAM STUDI S1 INFORMATIKA

FAKULTAS INFORMATIKA

TELKOM UNIVERSITY PURWOKERTO

2025

LATIHAN KELAS – GUIDED

1. Guided 1 Source Code

```
package main

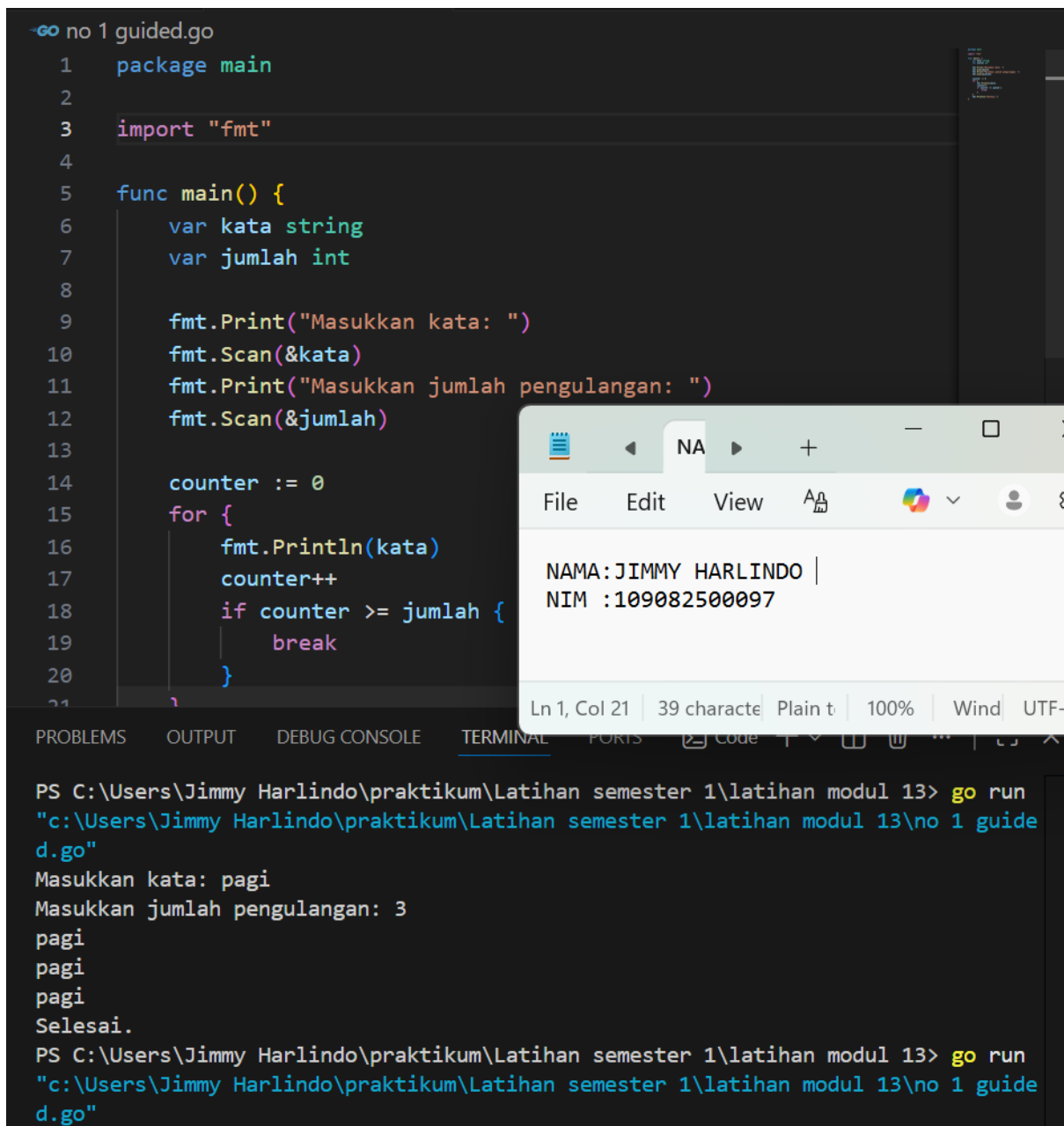
import "fmt"

func main() {
    var kata string
    var jumlah int

    fmt.Print("Masukkan kata: ")
    fmt.Scan(&kata)
    fmt.Print("Masukkan jumlah pengulangan: ")
    fmt.Scan(&jumlah)

    counter := 0
    for {
        fmt.Println(kata)
        counter++
        if counter >= jumlah {
            break
        }
    }
    fmt.Println("Selesai.")
}
```

Screenshoot program



The screenshot shows a Go program in a code editor and its execution in a terminal. The code is a simple loop that prints a word a certain number of times. The terminal shows the program being run, the input 'pagi' and '3', and the output 'pagi' printed three times followed by 'Selesai.'.

```
no 1 guided.go
1 package main
2
3 import "fmt"
4
5 func main() {
6     var kata string
7     var jumlah int
8
9     fmt.Print("Masukkan kata: ")
10    fmt.Scan(&kata)
11    fmt.Print("Masukkan jumlah pengulangan: ")
12    fmt.Scan(&jumlah)
13
14    counter := 0
15    for {
16        fmt.Println(kata)
17        counter++
18        if counter >= jumlah {
19            break
20        }
21    }
```

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NAMA: JIMMY HARLINDO |
NIM : 109082500097

Ln 1, Col 21 | 39 character Plain t | 100% Wind UTF-

PS C:\Users\Jimmy Harlindo\praktikum\Latihan semester 1\latihan modul 13> go run "c:\Users\Jimmy Harlindo\praktikum\Latihan semester 1\latihan modul 13\no 1 guided.go"

Masukkan kata: pagi
Masukkan jumlah pengulangan: 3
pagi
pagi
pagi
Selesai.

PS C:\Users\Jimmy Harlindo\praktikum\Latihan semester 1\latihan modul 13> go run "c:\Users\Jimmy Harlindo\praktikum\Latihan semester 1\latihan modul 13\no 1 guided.go"

Deskripsi program

Penjelasan singkat: program meminta sebuah kata dan angka. Kemudian menjalankan blok `for { ... }` yang selalu dieksekusi (berperan sebagai repeat) dan setelah setiap cetak mengecek apakah jumlah cetakan sudah mencapai angka yang diminta; jika ya, `break` menghentikan loop—berfungsi seperti until.

2. Guided 2

Source Code

```
package main

import (
    "fmt"
)

func main() {
    var n int

    for {
        fmt.Print("Masukkan bilangan bulat positif: ")
        fmt.Scan(&n)

        if n > 0 {
            break
        }
    }

    fmt.Println(n, "adalah bilangan bulat positif")
}
```

Screenshoot program

The screenshot shows the Visual Studio Code editor with a Go file named `no 2 guided.go`. The code is as follows:

```
1 package main
2
3 import (
4     "fmt"
5 )
6
7 func main() {
8     var n int
9
10    for {
11        fmt.Print("Masukkan bilangan bulat positif: ")
12        fmt.Scan(&n)
13
14        if n > 0 {
15            break
16        }
17    }
18    fmt.Println(n, "adalah bilangan bulat positif")
19 }
20
```

A modal window titled "NA" is overlaid on the editor, displaying the following text:

```
NAMA: JIMMY HARLINDO |
NIM : 109082500097
```

The status bar at the bottom of the modal window shows: "Ln 1, Col 21 | 39 character | Plain t | 100% | Wind | UTF-8".

Below the code editor, the TERMINAL panel is active, showing the execution of the program:

```
Masukkan bilangan bulat positif: -5
Masukkan bilangan bulat positif: -2
Masukkan bilangan bulat positif: -1
Masukkan bilangan bulat positif: 0
Masukkan bilangan bulat positif: 5
5 adalah bilangan bulat positif
PS C:\Users\Jimmy Harlindo\praktikum\Latihan semester 1\latihan modul

13> go run "c:\Users\Jimmy Harlindo\praktikum\Latihan semester 1\latih
```

Deskripsi program

Program ini meminta untuk memasukkan bilangan bulat positif. Jika pengguna memasukkan bilangan negatif atau nol, program akan mengulang terus sampai pengguna memasukkan bilangan yang benar (positif).

Guided 3

Source Code

```
package main

import (
    "fmt"
)

func main() {
    var x, y int

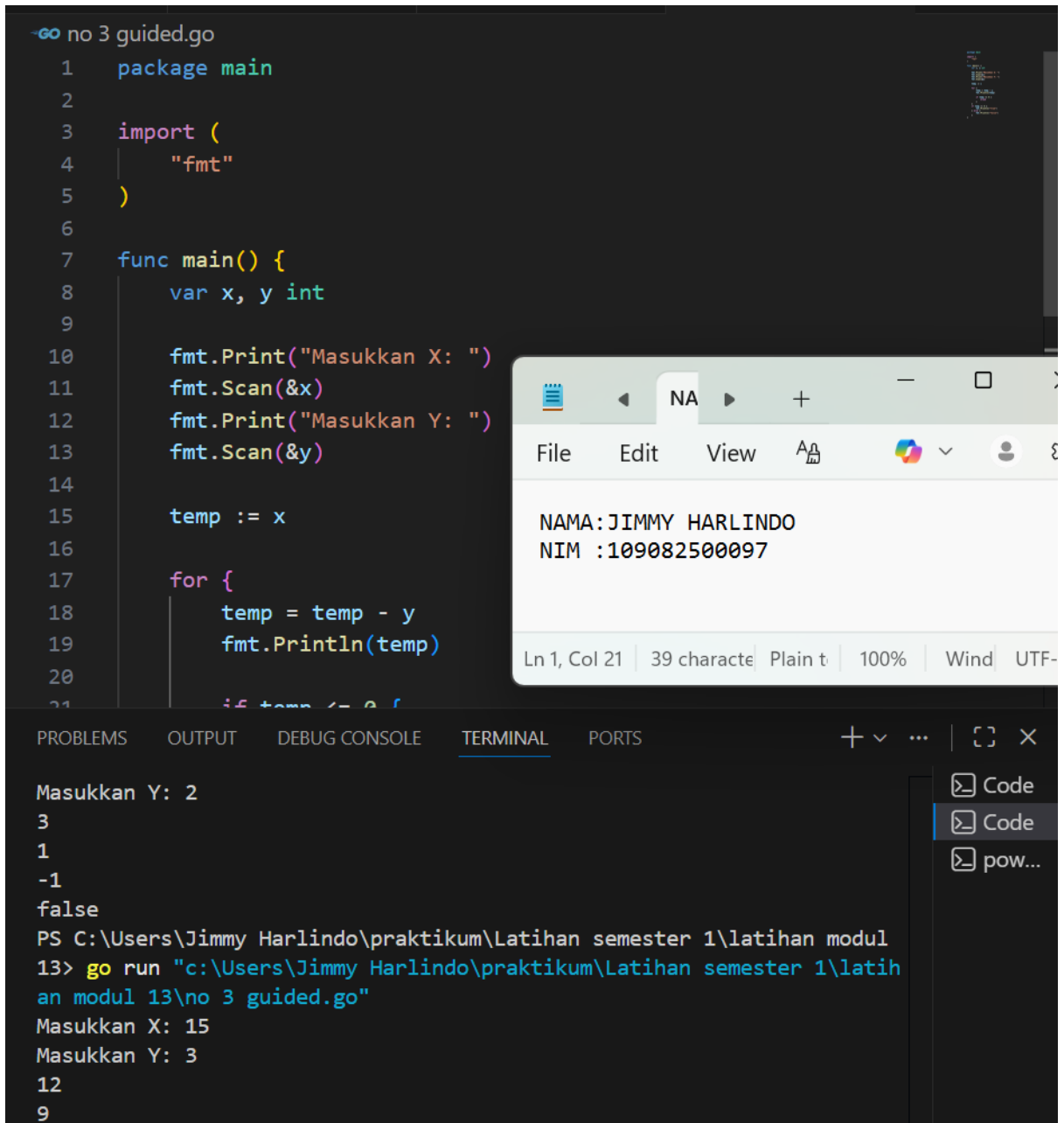
    fmt.Print("Masukkan X: ")
    fmt.Scan(&x)
    fmt.Print("Masukkan Y: ")
    fmt.Scan(&y)

    temp := x

    for {
        temp = temp - y
        fmt.Println(temp)

        if temp <= 0 {
            break
        }
    }
    if temp == 0 {
        fmt.Println("true")
    } else {
        fmt.Println("false")
    }
}
```

Screenshoot program



The screenshot shows a Go program in a code editor and its execution in a terminal. The program is a simple loop that subtracts a value Y from X until X is less than or equal to 0. The terminal output shows the program being run, the input values (X=15, Y=3), and the resulting sequence of values for X (12, 9).

```
no 3 guided.go
1 package main
2
3 import (
4     "fmt"
5 )
6
7 func main() {
8     var x, y int
9
10    fmt.Print("Masukkan X: ")
11    fmt.Scan(&x)
12    fmt.Print("Masukkan Y: ")
13    fmt.Scan(&y)
14
15    temp := x
16
17    for {
18        temp = temp - y
19        fmt.Println(temp)
20
21        if temp <= 0 {
22            break
23        }
24    }
25 }
```

Terminal Output:

```
Masukkan Y: 2
3
1
-1
false
PS C:\Users\Jimmy Harlindo\praktikum\Latihan semester 1\latihan modul 13> go run "c:\Users\Jimmy Harlindo\praktikum\Latihan semester 1\latihan modul 13\n0 3 guided.go"
Masukkan X: 15
Masukkan Y: 3
12
9
```

Deskripsi program

Program ini memakai for {} sebagai repeat dan break sebagai until. X dikurangi Y terus-menerus dan setiap hasilnya dicetak. Pengulangan berhenti saat hasilnya ≤ 0 . Jika hasil akhirnya tepat 0 berarti X kelipatan Y (true), jika negatif berarti bukan kelipatan (false).

TUGAS

1. Tugas 1

Source code

```
package main

import "fmt"

func main() {
    var n int
    fmt.Print("Masukkan bilangan: ")
    fmt.Scan(&n)

    hitung := 0

    for {
        hitung++
        n = n / 10
        if n == 0 {
            break
        }
    }

    fmt.Println("Jumlah digit:", hitung)
}
```


Screenshoot program

```
no 1.go
1  package main
2
3  import (
4      "fmt"
5  )
6
7  func main() {
8      var n int
9      fmt.Print("Masukkan bilangan: ")
10     fmt.Scan(&n)
11
12     hitung := 0
13
14     for {
15         hitung++
16         n = n / 10
17         if n == 0 {
18             break
19         }
20     }
21     fmt.Println("Jumlah digit: ", hitung)
```

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NIM : 109082500097

Ln 1, Col 21 | 39 character | Plain t | 100% | Wind | UTF-8

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\Jimmy Harlindo\praktikum\tugas modul 13> go run "c:\Users\Jimmy Harlindo\praktikum\tugas modul 13\no 1.go"
Masukkan bilangan: 5
Jumlah digit: 1
PS C:\Users\Jimmy Harlindo\praktikum\tugas modul 13> go run "c:\Users\Jimmy Harlindo\praktikum\tugas modul 13\no 1.go"
Masukkan bilangan: 234
Jumlah digit: 3
PS C:\Users\Jimmy Harlindo\praktikum\tugas modul 13> go run "c:\Users\Jimmy Harlindo\praktikum\tugas modul 13\no 1.go"
Masukkan bilangan: 78787
Jumlah digit: 5
```

Deskripsi program

Setiap putaran, angka dibagi 10 untuk membuang digit paling belakang, sambil menghitung berapa kali proses berlangsung. Saat angkanya menjadi 0, loop berhenti dan jumlah digit ditampilkan.

2. Tugas 2

Source code

```
package main

import "fmt"

func main() {
    var x float64
    fmt.Print("Masukkan bilangan desimal: ")
    fmt.Scan(&x)

    batas := math.Ceil(x)
    curr := x

    for {
        curr += 0.1
        fmt.Printf("%.1f\n", curr)

        if curr >= batas {
            break
        }
    }
}
```

Screenshoot program

The screenshot shows a Go program in a code editor and its execution in a terminal. The program is named `no 2.go` and is located in the directory `C:\Users\Jimmy Harlindo\praktikum\tugas modul 13`. The program's logic is as follows:

```
1 package main
2
3 import "fmt"
4
5
6 func main() {
7     var x float64
8     fmt.Print("Masukkan bilangan desimal: ")
9     fmt.Scan(&x)
10
11     batas := math.Ceil(x)
12     curr := x
13
14     for {
15         curr += 0.1
16         fmt.Printf("%.1f\n", curr)
17
18         if curr >= batas {
19             break
20         }
21     }
```

The terminal output shows the program running and printing the values of `curr` from 0.7 to 3.0, with a prompt for the user to input a decimal number. The user input is 2.7, which is used to calculate the upper limit `batas` (3.0).

```
PS C:\Users\Jimmy Harlindo\praktikum\tugas modul 13> go run "c:\Users\Jimmy Harlindo\praktikum\tugas modul 13\no 2.go"
Masukkan bilangan desimal: 2.7
0.7
0.8
0.9
1.0
1.1
2.8
2.9
3.0
```

Deskripsi program

Program ini menghitung nilai dari bilangan awal dan menambahkan 0.1 setiap perulangan.

Tugas 3

Source code

```
package main

import "fmt"

func main() {
    var target int
    fmt.Print("Masukkan target donasi: ")
    fmt.Scan(&target)

    total := 0
    donatur := 1

    for {
        var donasi int
        fmt.Scan(&donasi)

        total += donasi
        fmt.Printf("Donatur %d : Menyumbang %d. Total  
terkumpul: %d\n",
            donatur, donasi, total)

        donatur++

        if total >= target {
            break
        }
    }

    fmt.Printf("Target tercapai! Total donasi: %d dari  
%d donatur.\n",
        total, donatur-1)
}
```

Screenshoot program

The screenshot shows a Go program in a code editor and its execution in a terminal. The program is a simple loop that asks for donations until a target is reached.

```
no 3.go
1 package main
2
3 import "fmt"
4
5
6 func main() {
7     var target int
8     fmt.Print("Masukkan target donasi: ")
9     fmt.Scan(&target)
10
11     total := 0
12     donatur := 1
13
14     for {
15         var donasi int
16         fmt.Scan(&donasi)
17
18         total += donasi
19         fmt.Printf("Donatur %d : Menyumbang %d. Total terkumpul: ",
20             donatur, donasi, total)
21     }
```

The terminal output shows the program running and the user inputting values:

```
PS C:\Users\Jimmy Harlindo\praktikum\tugas modul 13> go run "c:\Users\Jimmy Harlindo\praktikum\tugas modul 13\no 3.go"
Masukkan target donasi: 300
100
Donatur 1 : Menyumbang 100. Total terkumpul: 100
50
Donatur 2 : Menyumbang 50. Total terkumpul: 150
200
Donatur 3 : Menyumbang 200. Total terkumpul: 350
Target tercapai! Total donasi: 350 dari 3 donatur.
PS C:\Users\Jimmy Harlindo\praktikum\tugas modul 13> go run "c:\Users\Jimmy Harlindo\praktikum\tugas modul 13\no 3.go"
```

Deskripsi program

Setiap donatur memasukkan jumlah donasi, total donasi ditambah, dan ditampilkan. Saat total donasi mencapai atau melebihi target, kondisi until terpenuhi dan loop dihentikan dengan break.