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**

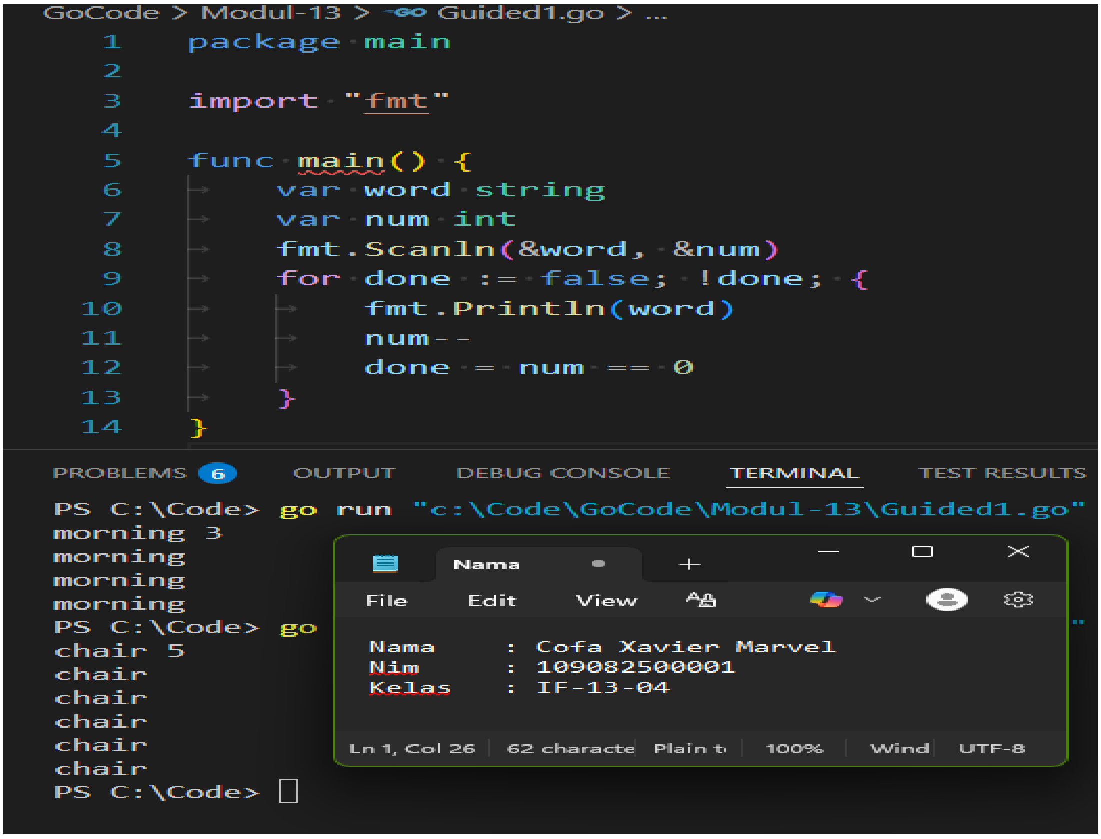
Source Code

```
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



```
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
    }
}
```

```
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
PS C:\Code>
```

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

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

Deskripsi program

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

2. **Guided 2**

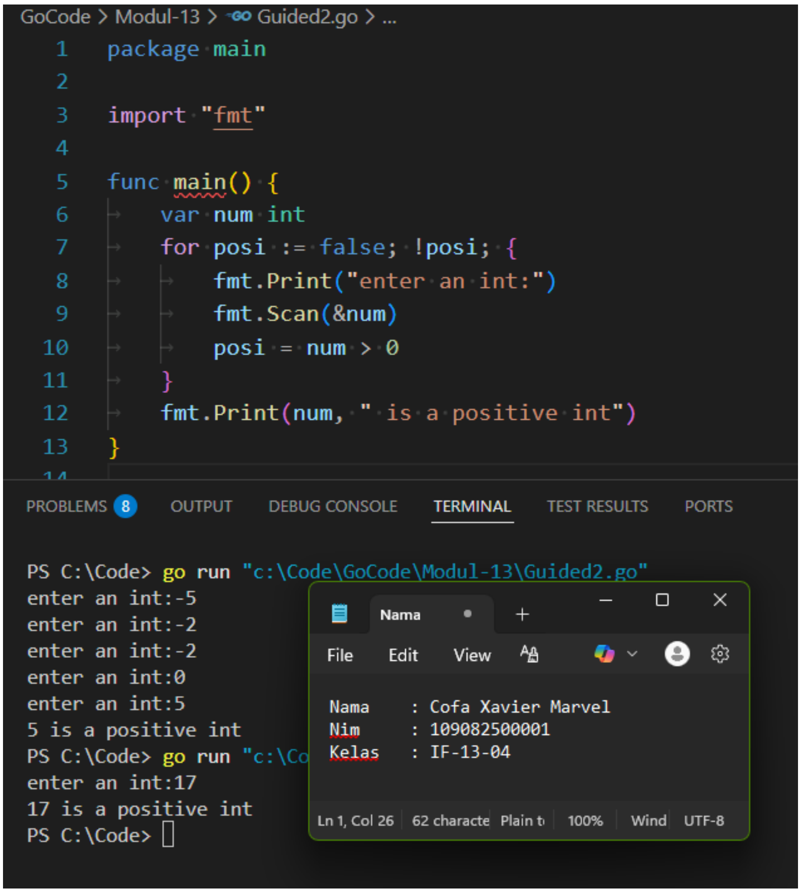
   Source Code

```
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



```go
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")
}
```

```
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:\Co
enter an int:17
17 is a positive int
PS C:\Code>
```

```
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Nim    : 109082500001
Kelas  : IF-13-04
```

Deskripsi program

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

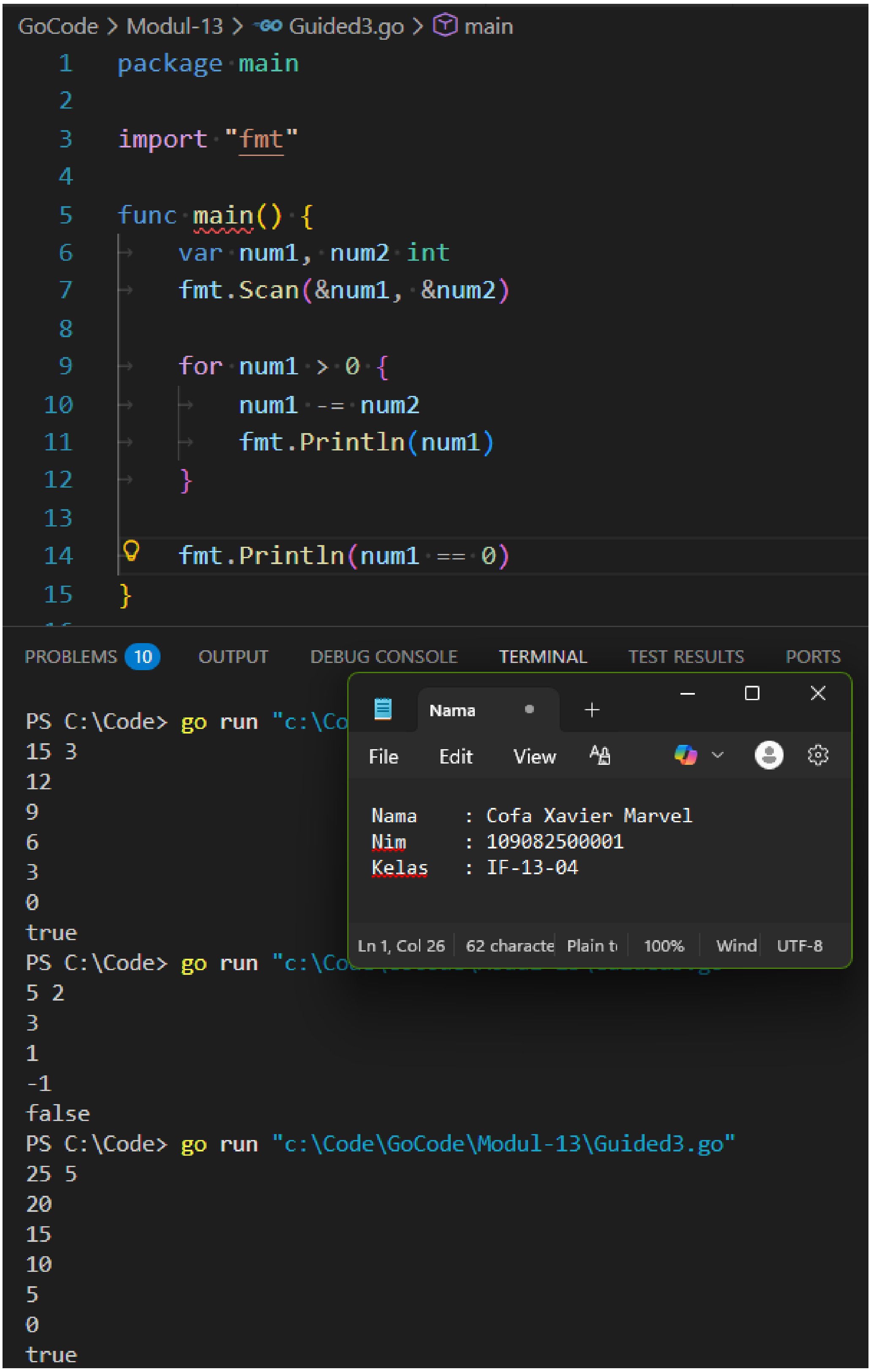
Guided 3

Source Code

```go
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)
}
```

[redacted]

Screenshoot program



```go
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)
}
```

```
PS C:\Code> go run "c:\Co
15 3
12
9
6
3
0
true
PS C:\Code> go run "c:\Co
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
```

```
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Kelas   : IF-13-04
```

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

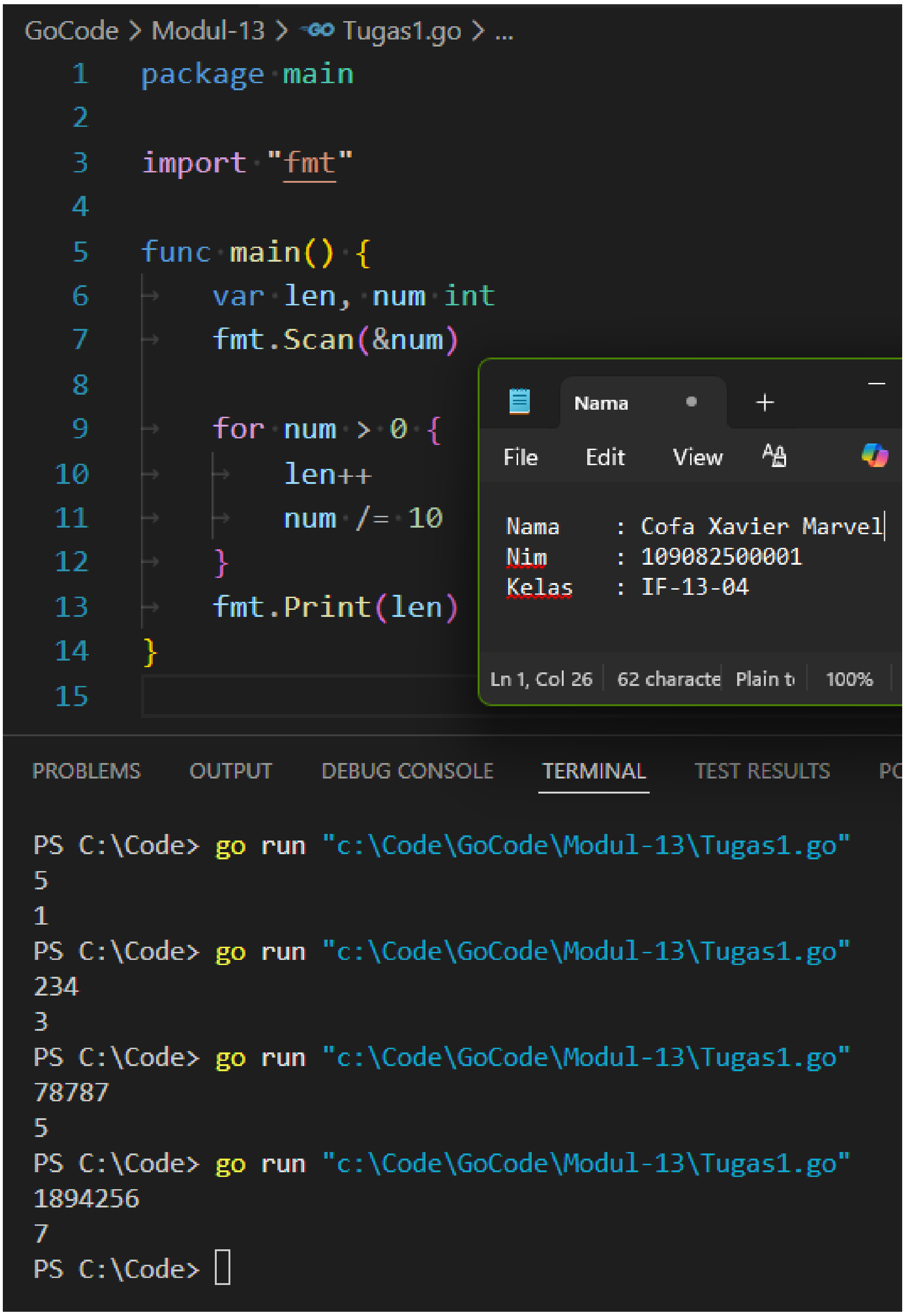
```
package main

import "fmt"

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

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

Screenshoot program



```go
package main

import "fmt"

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

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

```

```
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Nim     : 109082500001
Kelas   : IF-13-04
```

```
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

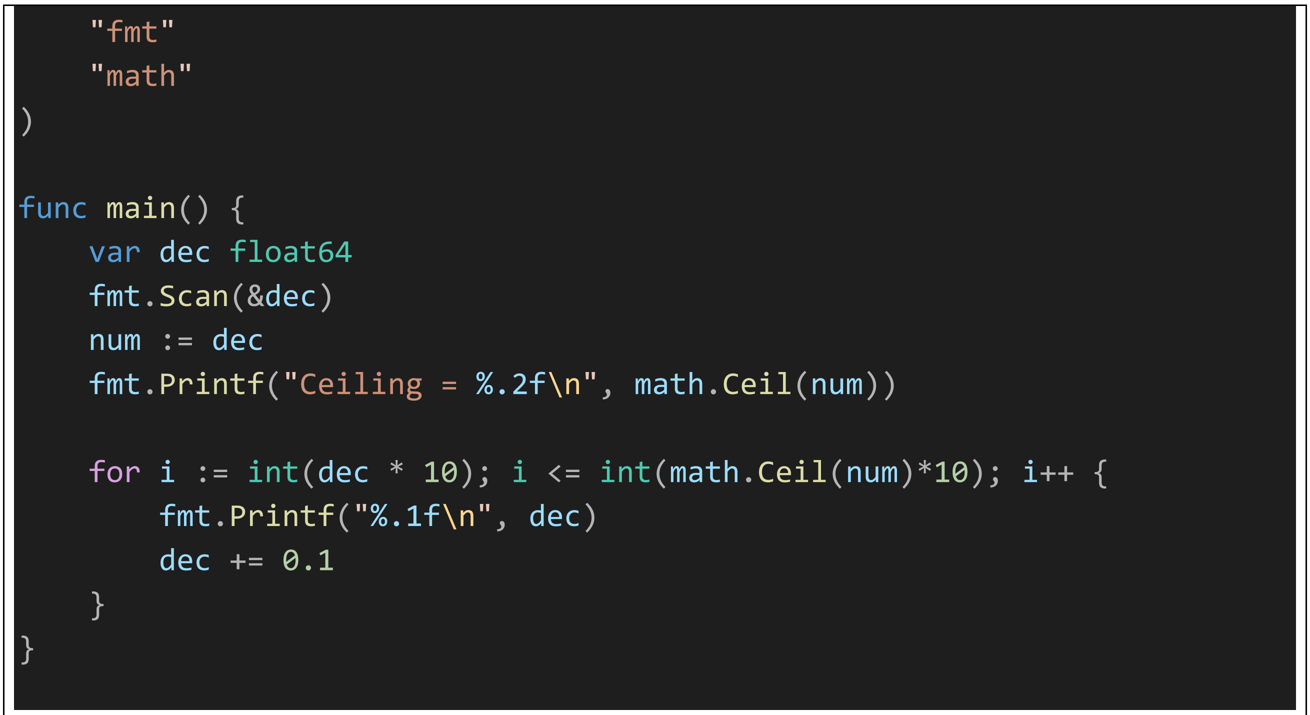
This program finds the length of a integer by repetedly increasing len by 1 and dividing the integer by 10 until it is equal to 0.

Tugas 2

Source code

```go
package main

import (
```

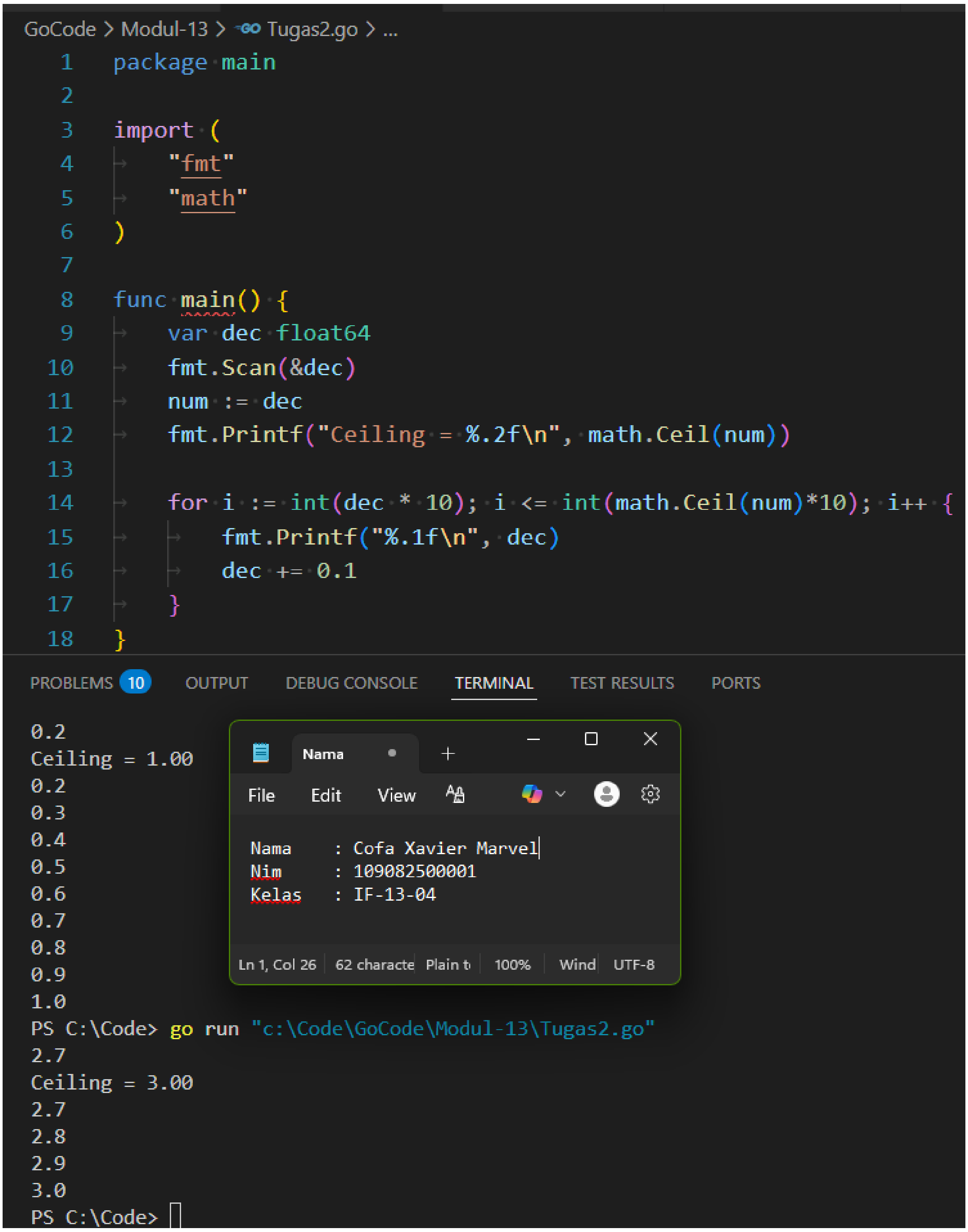


```
    "fmt"
    "math"
)

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



```go
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
	}
}
```

```
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    : Cofa Xavier Marvel
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Kelas   : IF-13-04
```
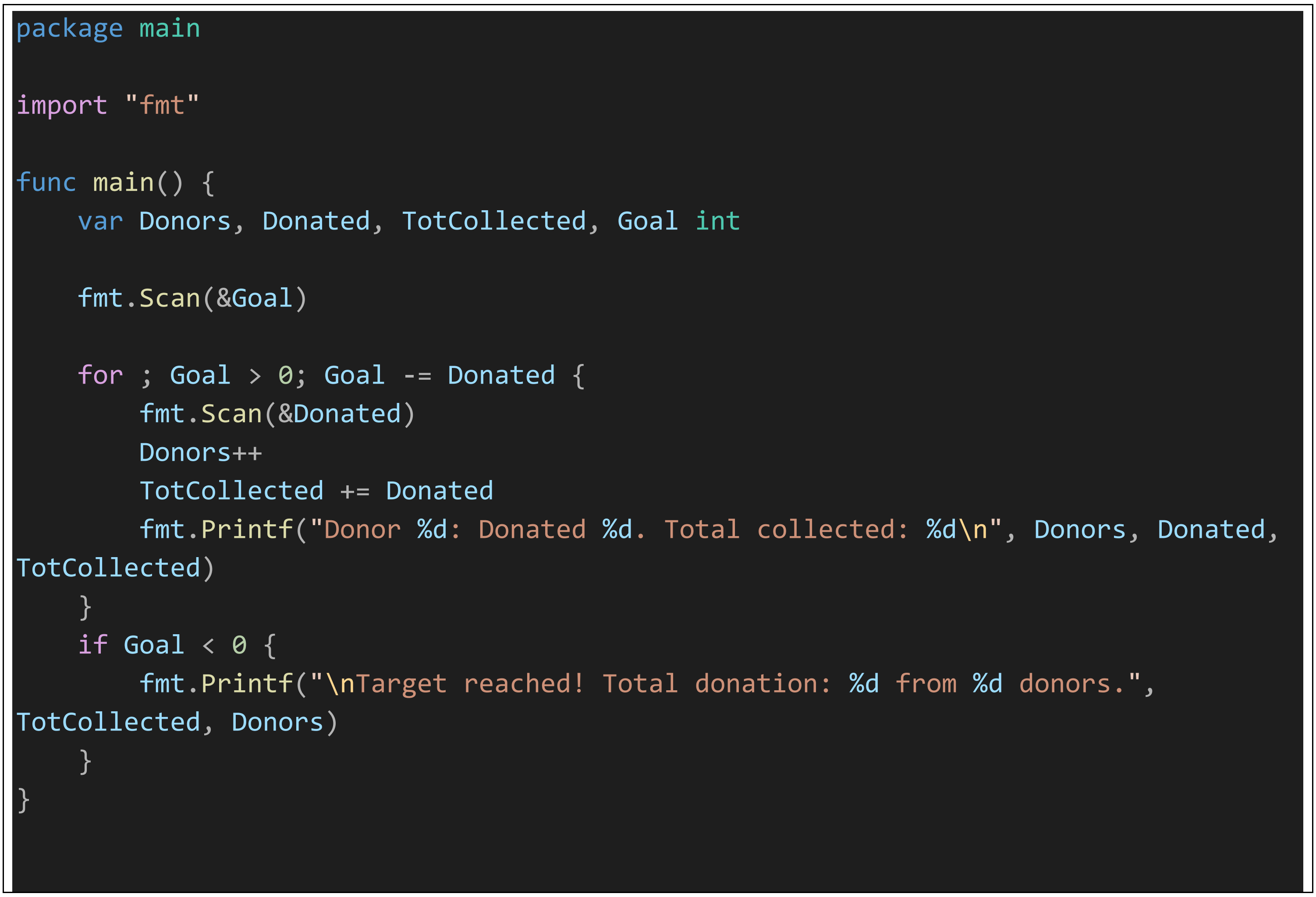

Deskripsi program

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.

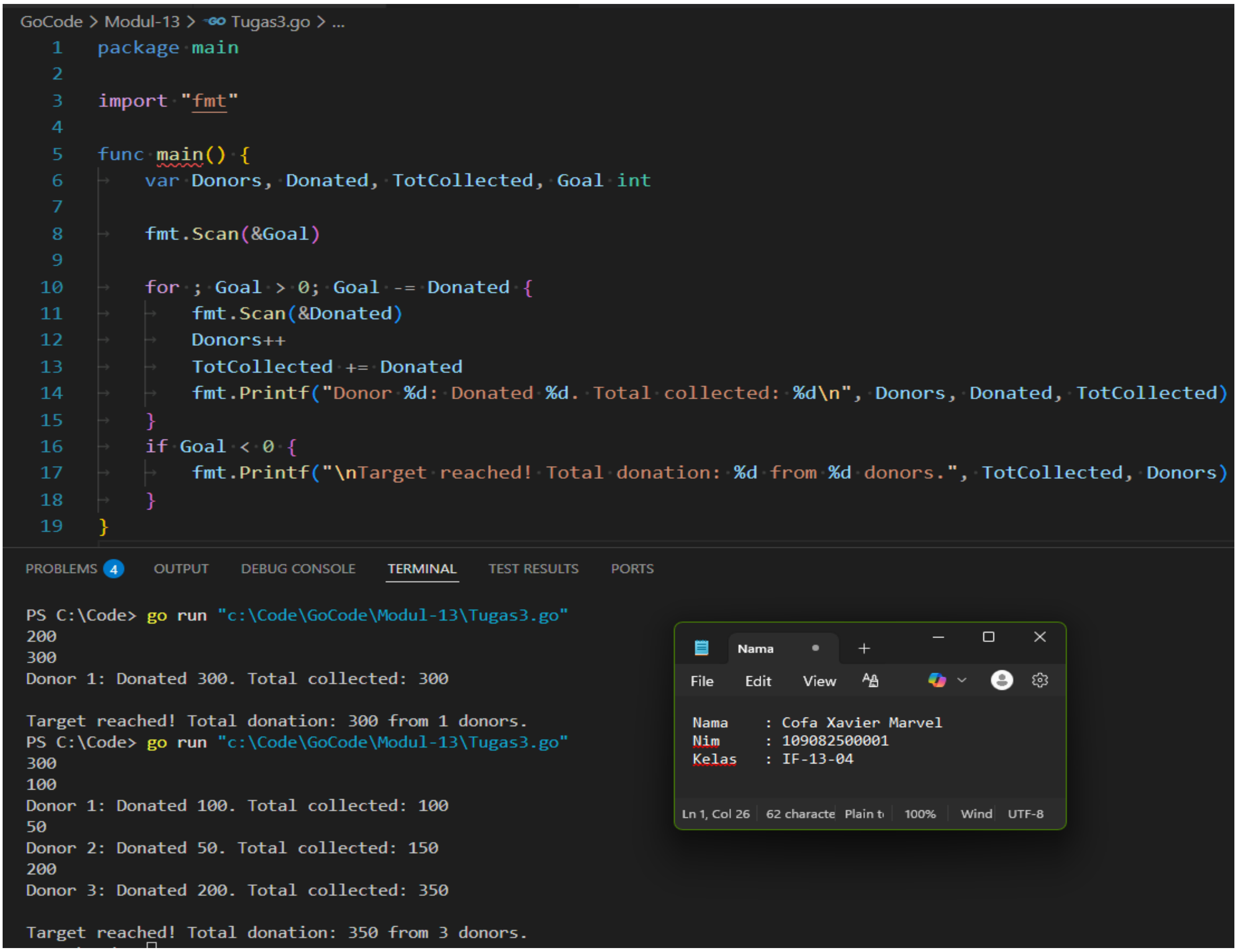
Tugas 3

Source code



```go
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



```go
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)
    }
}
```

```
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.
```

```
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Kelas   : IF-13-04
```

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.