LAPORAN PRAKTIKUM

Algoritma Pemrograman

MODUL 11

Switch-case

Disusun oleh:

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S1IF-13-04

PROGRAM STUDI S1 INFORMATIKA

FAKULTAS INFORMATIKA

TELKOM UNIVERSITY PURWOKERTO

2025

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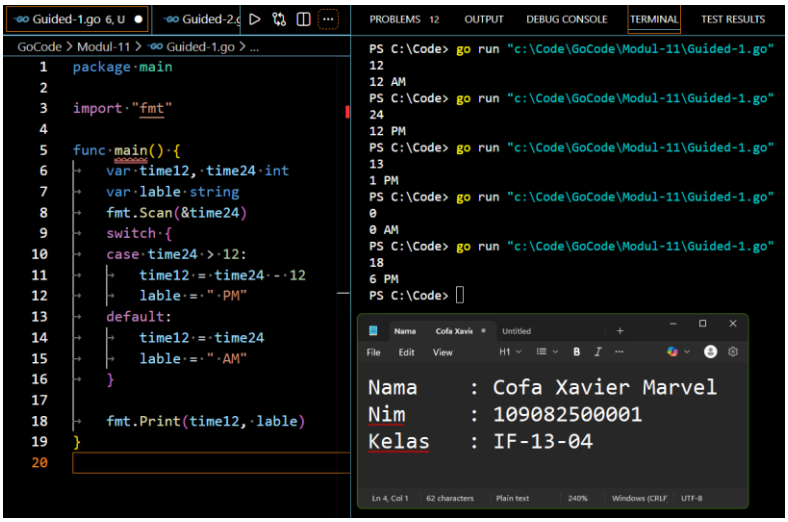
1. **Guided 1**

Source Code

```go
package main

import "fmt"

func main() {
    var time12, time24 int
    var lable string
    fmt.Scan(&time24)
    switch {
    case time24 > 12:
        time12 = time24 - 12
        lable = " PM"
    default:
        time12 = time24
        lable = " AM"
    }

    fmt.Print(time12, lable)
}
```

Screenshoot program



Deskripsi program

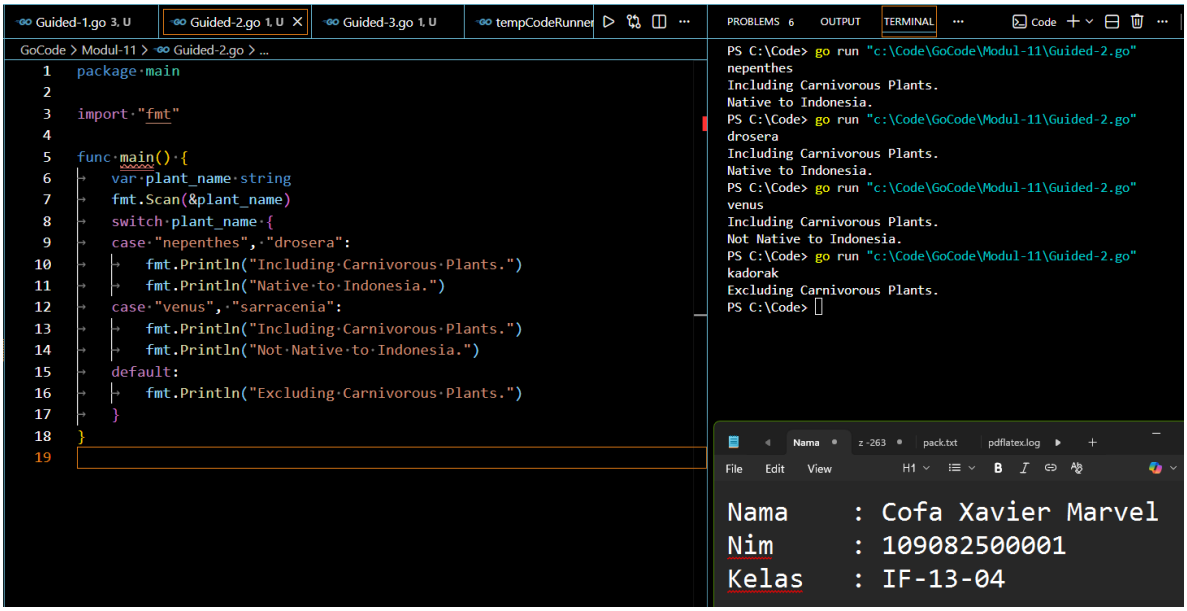
This Is a program that uses a switch-case operator with a blank expression and one case, case one has the value time24 > 12 if true time12 is time24 – 12 and label is PM, in default when time24 > 12 is false then time12 is time24 and the label is AM.

2. **Guided 2**

Source Code

```go
package main

import "fmt"

func main() {
    var plant_name string
    fmt.Scan(&plant_name)
    switch plant_name {
    case "nepenthes", "drosera":
        fmt.Println("Including Carnivorous Plants.")
        fmt.Println("Native to Indonesia.")
    case "venus", "sarracenia":
        fmt.Println("Including Carnivorous Plants.")
        fmt.Println("Not Native to Indonesia.")
    default:
        fmt.Println("Excluding Carnivorous Plants.")
    }
}
```

Screenshoot program



Deskripsi program

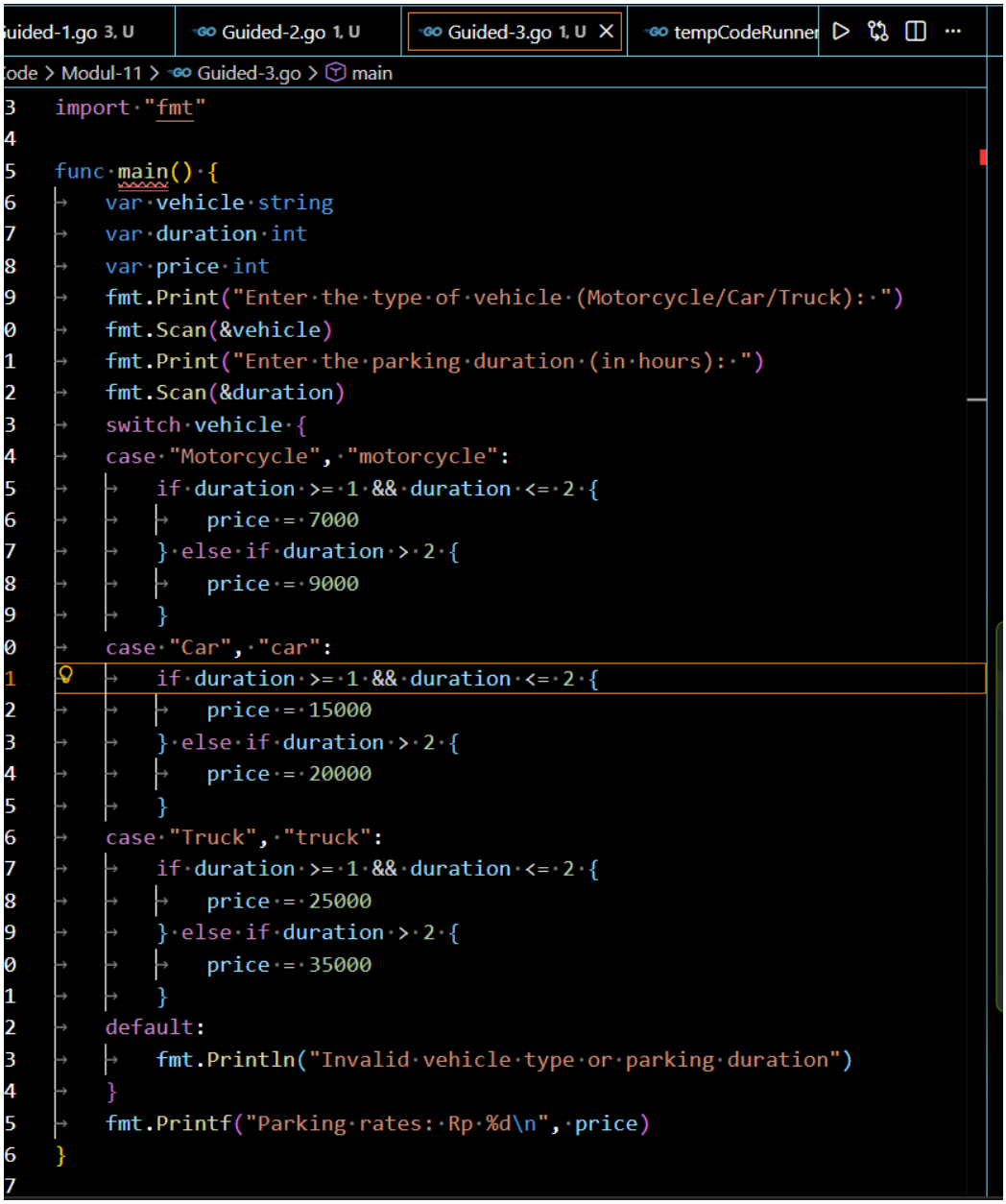
This program is a simple classifier that checks whether a plant Is a carnivore plant or not and if it is native to Indonesia or not the outputs the appropriate message based on the category

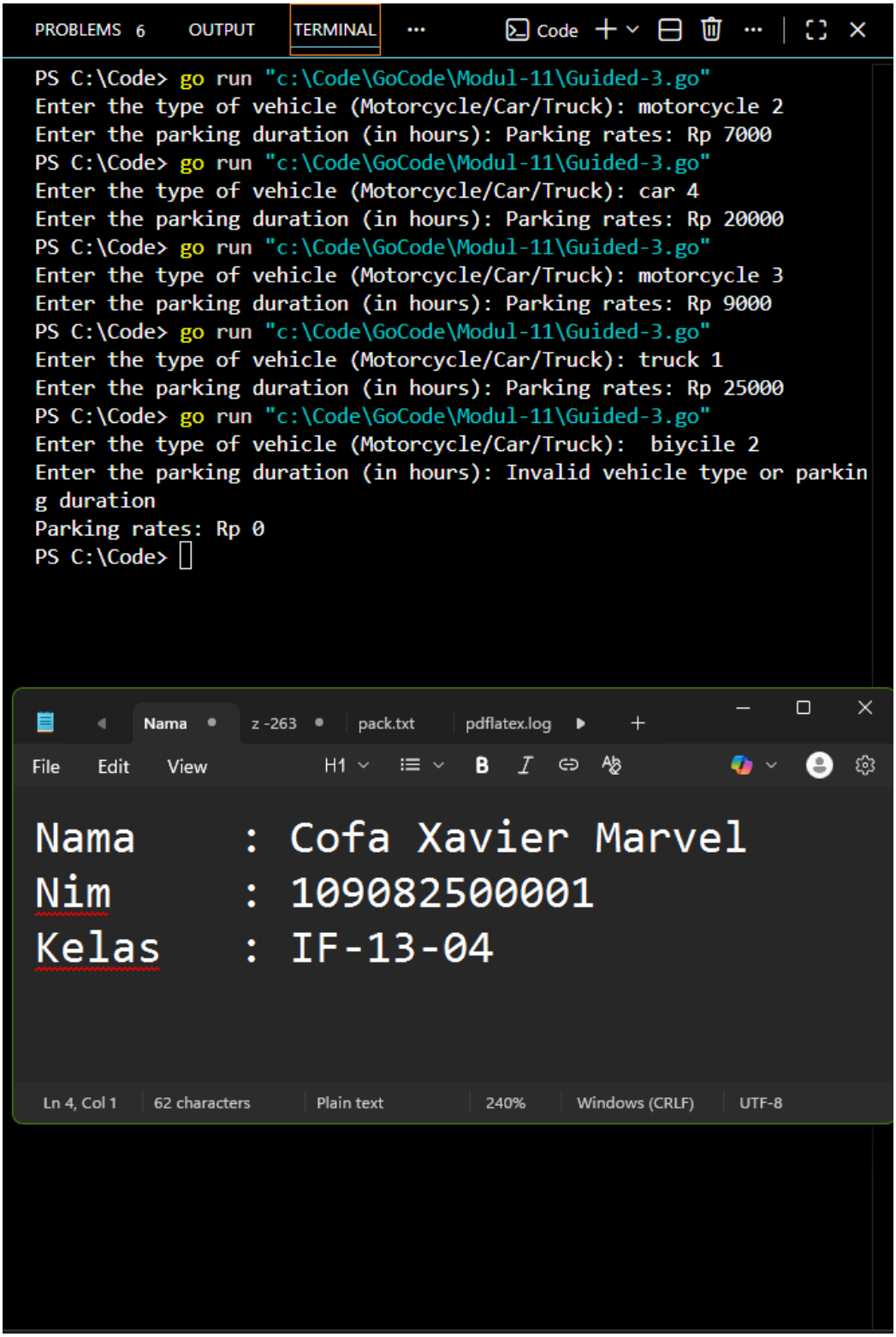
3. **Guided 3**

Source Code

```go
package main

import "fmt"

func main() {
    var vehicle string
    var duration int
    var price int
    fmt.Print("Enter the type of vehicle
(Motorcycle/Car/Truck): ")
    fmt.Scan(&vehicle)
    fmt.Print("Enter the parking duration (in hours): ")
    fmt.Scan(&duration)
    switch {
    case vehicle == "Motorcycle" && duration >= 1 && duration
<= 2:
        price = 7000
    case vehicle == "Motorcycle" && duration > 2:
        price = 9000
    case vehicle == "Car" && duration >= 1 && duration <= 2:
        price = 15000
    case vehicle == "Car" && duration > 2:
        price = 20000
    case vehicle == "Truck" && duration >= 1 && duration <=
2:
        price = 25000
    case vehicle == "Truck" && duration > 2:
        price = 35000
    default:
        fmt.Println("Invalid vehicle type or parking
duration")
    }
    fmt.Printf("Parking rates: Rp %d\n", price)
}
```

Screenshoot program


uided-1.go 3, U
Guided-2.go 1, U
Guided-3.go 1, U
tempCodeRunner
ode > Modul-11 > Guided-3.go > main
import "fmt"
func main() {
var vehicle string
var duration int
var price int
fmt.Print("Enter the type of vehicle (Motorcycle/Car/Truck): ")
fmt.Scan(&vehicle)
fmt.Print("Enter the parking duration (in hours): ")
fmt.Scan(&duration)
switch vehicle {
case "Motorcycle", "motorcycle":
if duration >= 1 && duration <= 2 {
price = 7000
} else if duration > 2 {
price = 9000
}
case "Car", "car":
if duration >= 1 && duration <= 2 {
price = 15000
} else if duration > 2 {
price = 20000
}
case "Truck", "truck":
if duration >= 1 && duration <= 2 {
price = 25000
} else if duration > 2 {
price = 35000
}
default:
fmt.Println("Invalid vehicle type or parking duration")
}
fmt.Printf("Parking rates: Rp %d\n", price)
}



Deskripsi program

This program sets the price of parking based on the vehicle type it uses a switch-case to identify the vehicle and an if-else thing to find the amount owed.

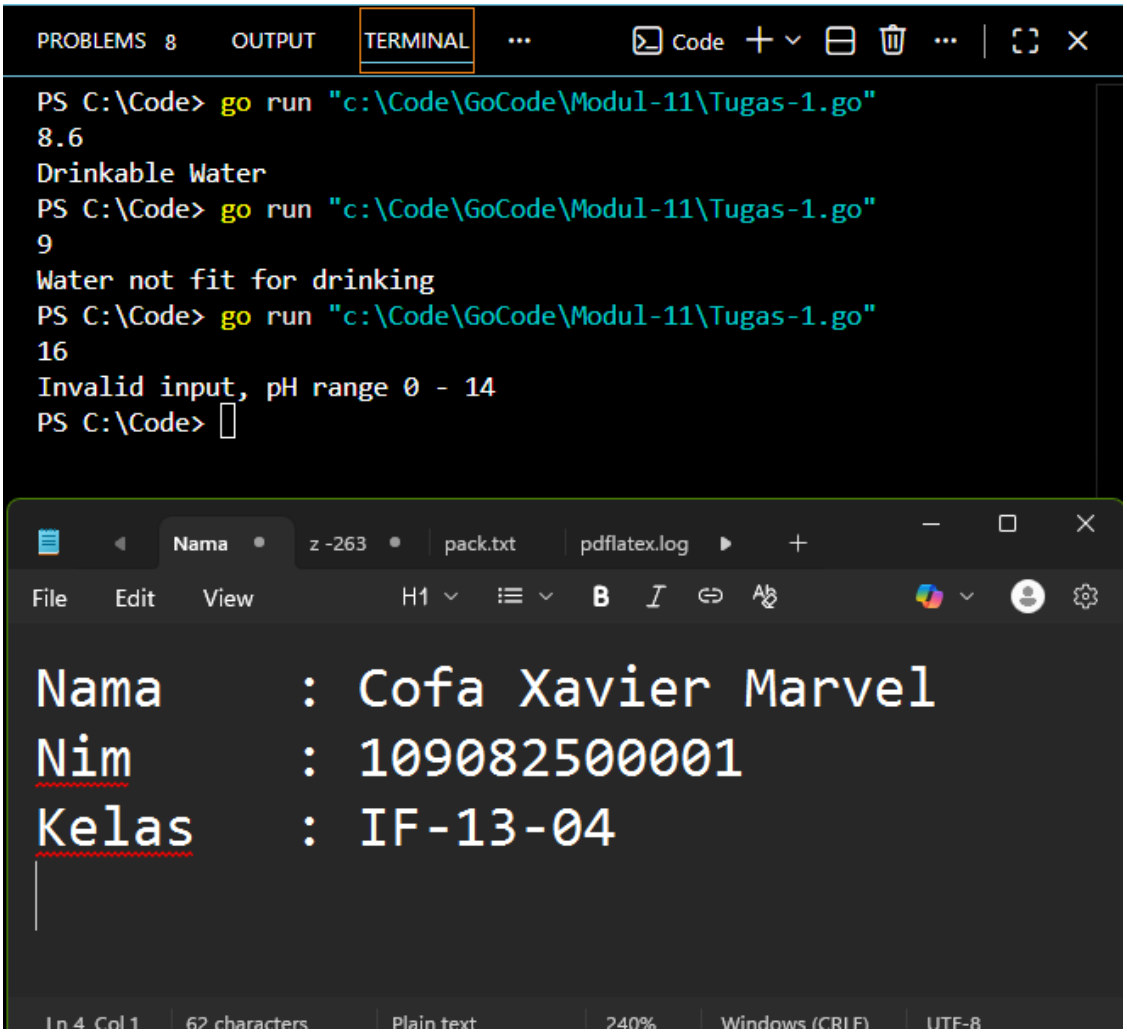
TUGAS

Tugas 1

Source code

```go
package main

import "fmt"

func main() {
    var ph float64
    fmt.Scan(&ph)

    switch {
    case ph >= 6.5 && ph <= 8.6:
        fmt.Println("Drinkable Water")
    case ph < 6.5 && ph > 8.6:
        fmt.Println("Undrinkable Water")
    case ph < 0 || ph > 14:
        fmt.Println("Invalid input, pH range 0 - 14")
    default:
        fmt.Println("Water not fit for drinking")
    }
}
```

Screenshoot program



Deskripsi program

This program finds the drinkability of water depending on the ph level using a switch-case with no expression and 3 cases with a default

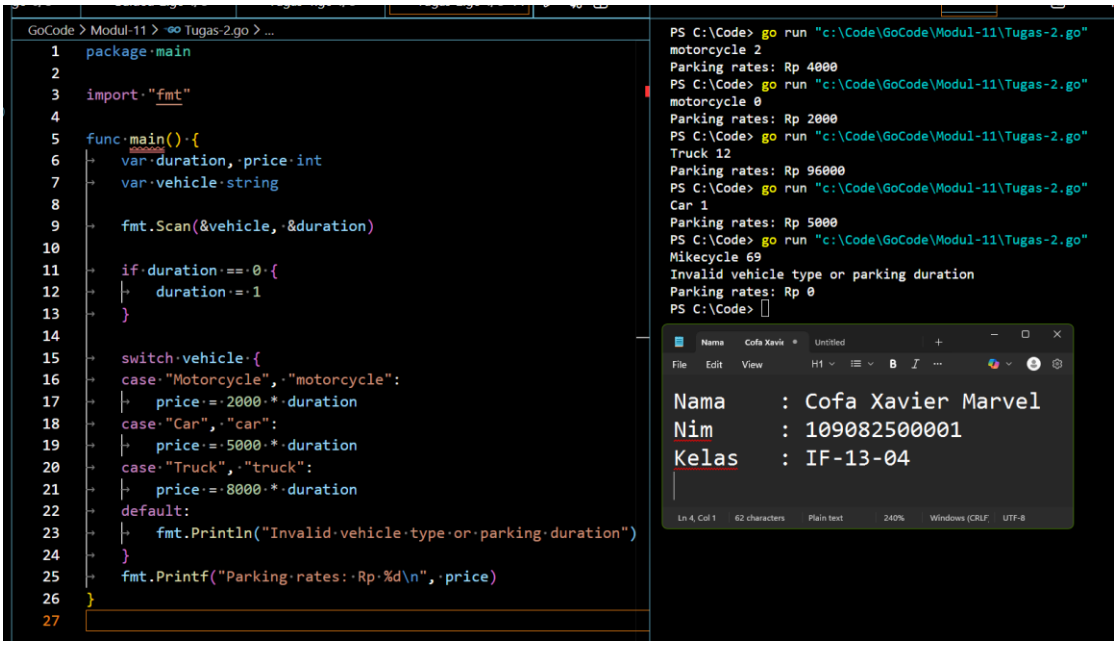
Tugas 2

Source code

```go
package main

import "fmt"

func main() {
    var duration, price int
    var vehicle string

    fmt.Scan(&vehicle, &duration)

    if duration == 0 {
        duration = 1
```

```
    }

    switch vehicle {
    case "Motorcycle", "motorcycle":
        price = 2000 * duration
    case "Car", "car":
        price = 5000 * duration
    case "Truck", "truck":
        price = 8000 * duration
    default:
        fmt.Println("Invalid vehicle type or parking
duration")
    }
    fmt.Printf("Parking rates: Rp %d\n", price)
}
```

Screenshoot program



Deskripsi program

This program is the same as Guided 3 but the way it calculates the price of parking is linear instead of constant.

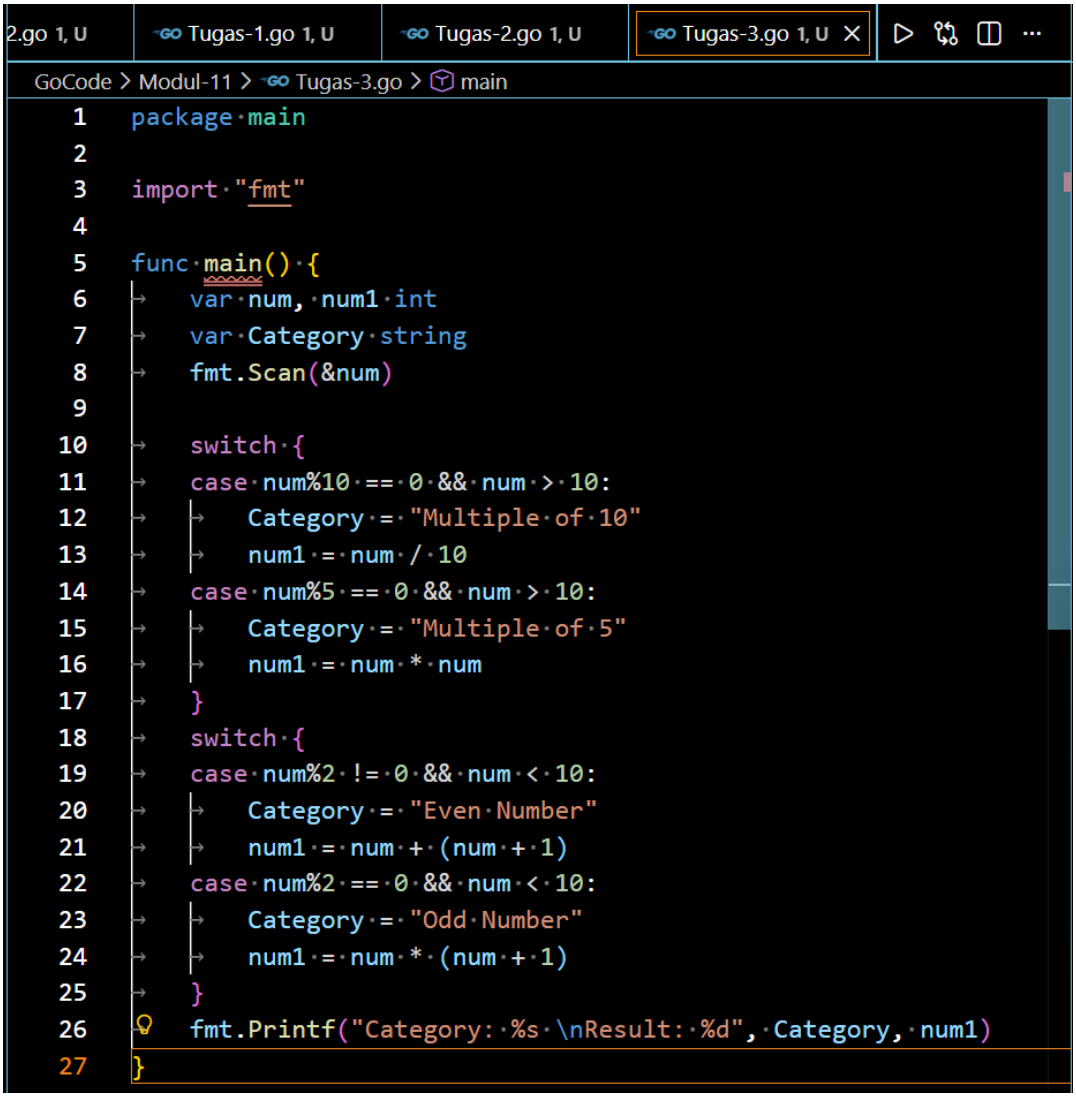
Tugas 3

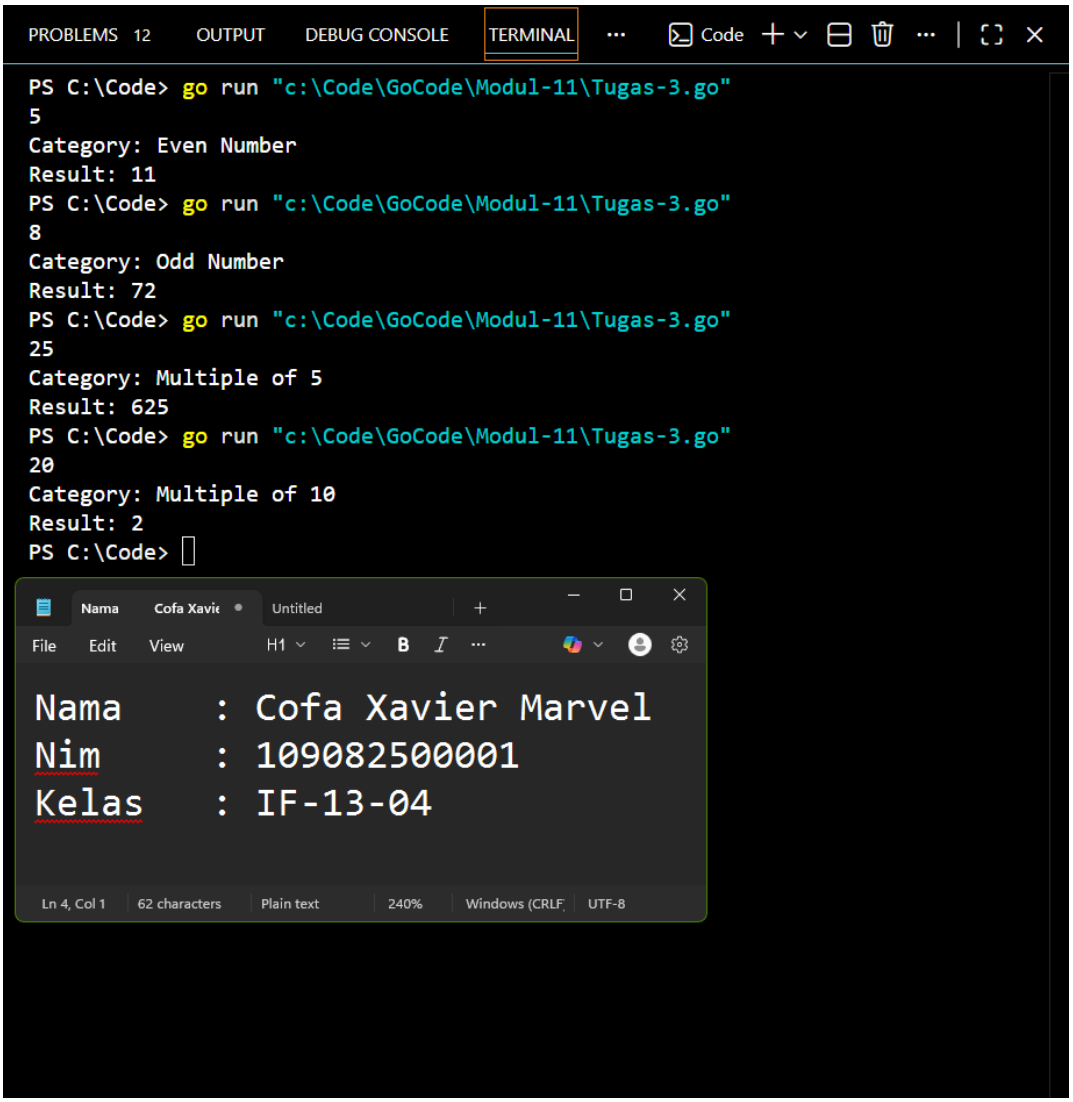
Source code

```
package main

import "fmt"
```

```go
func main() {
    var num, num1 int
    var Category string
    fmt.Scan(&num)

    switch {
    case num%10 == 0 && num > 10:
        Category = "Multiple of 10"
        num1 = num / 10
    case num%5 == 0 && num > 10:
        Category = "Multiple of 5"
        num1 = num * num
    }
    switch {
    case num%2 != 0 && num < 10:
        Category = "Even Number"
        num1 = num + (num + 1)
    case num%2 == 0 && num < 10:
        Category = "Odd Number"
        num1 = num * (num + 1)
    }
    fmt.Printf("Category: %s \nResult: %d", Category, num1)
}
```

Screenshoot program


2.go 1, U
Tugas-1.go 1, U
Tugas-2.go 1, U
Tugas-3.go 1, U
GoCode > Modul-11 > Tugas-3.go > main
1 package main
2
3 import "fmt"
4
5 func main() {
6 var num, num1 int
7 var Category string
8 fmt.Scan(&num)
9
10 switch {
11 case num%10 == 0 && num > 10:
12 Category = "Multiple of 10"
13 num1 = num / 10
14 case num%5 == 0 && num > 10:
15 Category = "Multiple of 5"
16 num1 = num * num
17 }
18 switch {
19 case num%2 != 0 && num < 10:
20 Category = "Even Number"
21 num1 = num + (num + 1)
22 case num%2 == 0 && num < 10:
23 Category = "Odd Number"
24 num1 = num * (num + 1)
25 }
26 fmt.Printf("Category: %s \nResult: %d", Category, num1)
27 }



Deskripsi program

This program uses two switch-case operations each with two cases neither have expressions, the first switch-case finds if the number given is a multiple of 10 or multiple of 5 and greater, greater than 10 exist to avoid the conflict that comes when the number is even or odd and is a multiple of 5 or 10, the second switch-case checks if the number given is odd or even then it Outputs the correct number using the appropriate formula depending on whether the number is a multiple of 10, a multiple of 5, Odd or Even and greater or lesser than 10.