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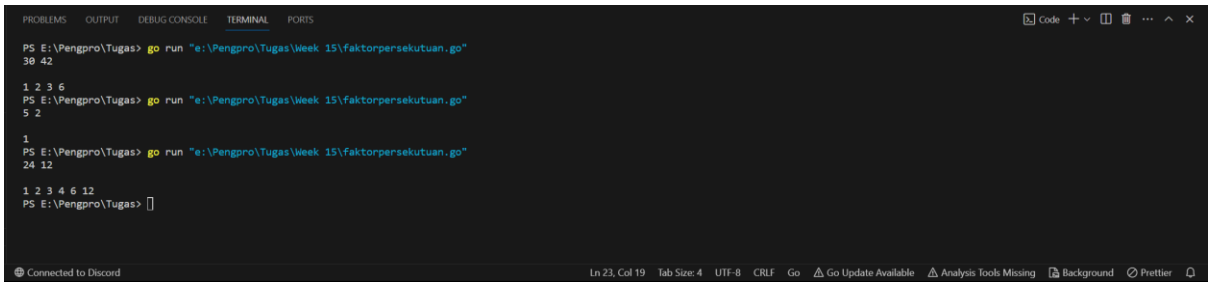
1a. Faktor Persekutuan

```go
package main

import (
    "fmt"
);

func main()  {
    var x, y int;

    fmt.Scan(&x, &y)
    fmt.Println("");

    for i := 1; i <= x && i <= y; i++ {
        if x % i == 0 && y % i == 0 {
            fmt.Print(i, " ")
        }
    }
}

// Program faktorpersekutuan

// Kamus
// x,y,i : Integer

// Algoritma
// Input (x, y)

// For i <- 1 to min(x, y) do
//     If x mod i == 0 and y mod i == 0 then
//         Output (I)
//     End If
// End For
```




1b. Faktor Persekutuan Terbesar (FPB)

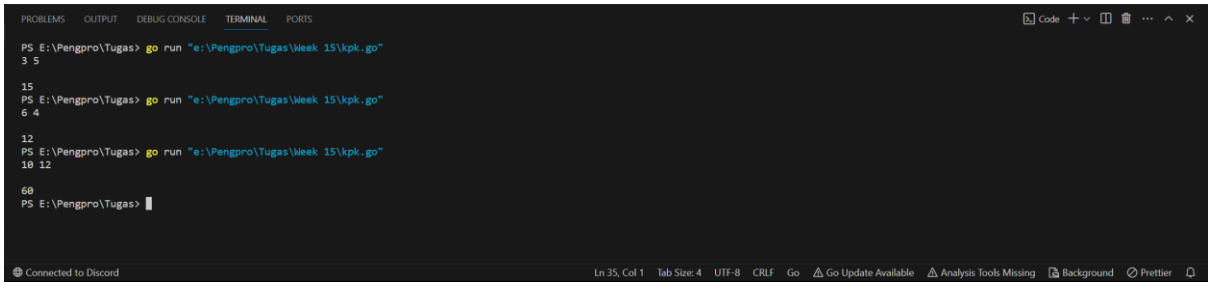
```go
package main
```

```go
import (
    "fmt"
);

func main()  {
    var x, y, fpb int;

    fmt.Scan(&x, &y)
    fmt.Println("");

    for i := 1; i <= x && i <= y; i++ {
        if x % i == 0 && y % i == 0 {
            fpb = i
        }
    }

    fmt.Println(fpb)
}

// Program faktorpersekutuanterbesar

//// Kamus
// x, y, fpb: integer

// Algoritma
// Input (x, y)
// For i <- 1 to min(x, y) do
//     If x mod i == 0 and y mod i == 0 then
//         fpb <- i
//     End If
// End For
// Output (fpb)
```


2. Kelipatan Persekutuan Terkecil (KPK)

```go
package main

import "fmt"
```

```go
func main() {
    var x, y, a, b int

    fmt.Scan(&x, &y)
    fmt.Println("")

    a, b = x, y

    for b != 0 {
        a, b = b, a % b
    }

    kpk := (x * y) / a

    fmt.Println(kpk)
}

// Program kelipatanpersekutuanterkecil

// Kamus
// x, y, a, b, kpk: integer

// Algoritma
// Input (x, y)
// a <- x, b <- y
// While b != 0 do
//     a, b <- b, a mod b
// End While
// kpk <- (x * y) / a
// Output (kpk)
```

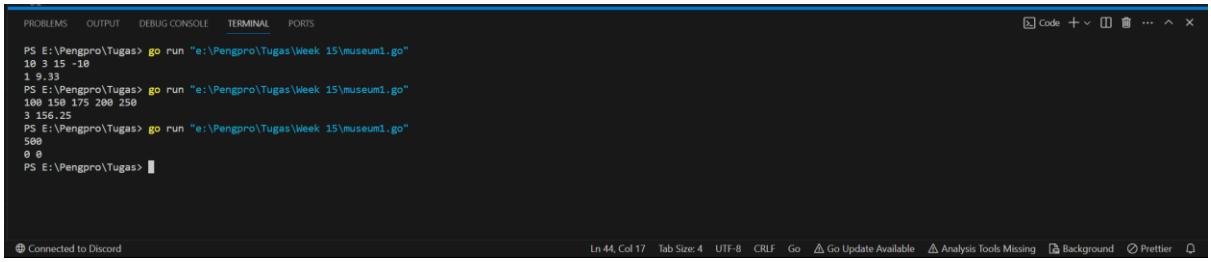



3a. Museum 1

```go
package main

import "fmt"

func main() {
    var x, increase, lastVisitor, sum, n int
```

```
    var average float64

    lastVisitor, sum, increase, n = 0, 0, -1, 0

    for x >= 0 && x <= 200 {
        fmt.Scan(&x)

        if x >= 0 && x <= 200 {
            if x > lastVisitor {
                increase++
            }
            sum += x
            n++
            lastVisitor = x
        }
    }

    if increase < 0 {
        increase = 0
    }

    average = float64(sum) / float64(n)

    if average != average {
        average = 0

        fmt.Print(increase, average)
    } else {
        fmt.Printf("%d %.2f", increase, average)
    }

}

// Program museumsatu

// Kamus
// x, increase, lastVisitor, sum, n: integer
// average: Real

// Algoritma
// lastVisitor, sum, increase, n ← 0, 0, -1, 0

// Loop While x >= 0 AND x <= 200
//  Input (x)

//  If x >= 0 AND x <= 200 Then
//      If x > lastVisitor Then
//          increase <- increase + 1
```

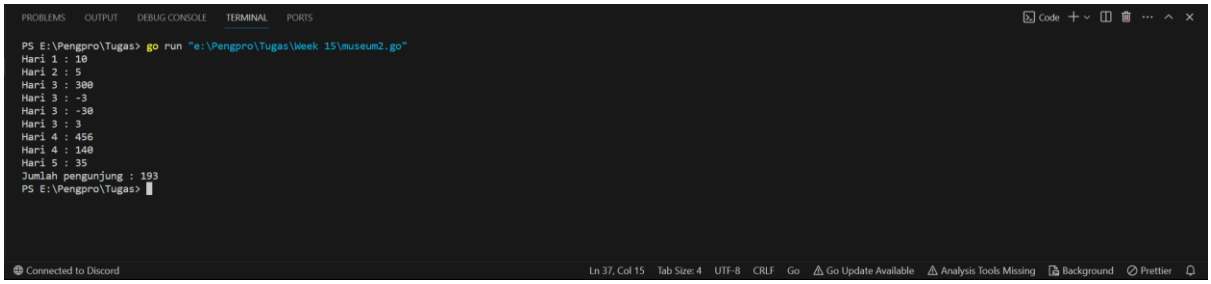
```
//      End If
//      sum <- sum + x
//      n <- n + 1
//      lastVisitor <- x
//  End If
// End Loop

// If increase < 0 Then
//  increase <- 0
// End If

// average <- real(sum) / real(n)

// If average != To average Then
//  average <- 0
//  Output (increase, average)
// Else
//  Output (increase, average With Format "%d %.2f")
// End If
// End Program
```




3b. Museum 2

```go
package main

import "fmt"

func main() {
    var x, sum int;

    sum = 0
    for i := 1; i <= 5; i++ {
        x = -1
        for x < 0 || x > 200 {
            fmt.Print("Hari ", i, " : ")
            fmt.Scan(&x)
        }
        sum += x
    }
```

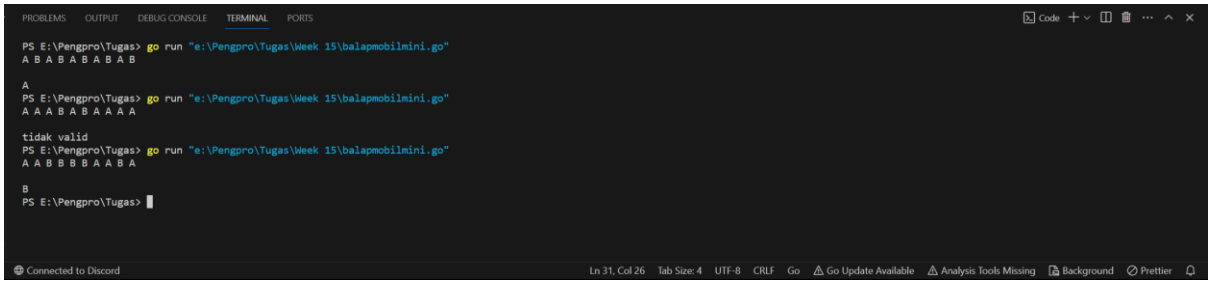
```
    fmt.Println("Jumlah pengunjung :", sum)

}

// Program museum2
// Kamus
// x, sum, i: integer

// Algoritma
// sum <- 0
// For i <- 1 to 5 do
//     x <- -1
//     While x < 0 or x > 200 do
//         Print "Hari ", i, " : "
//         Input (x)
//     End While
//     sum <- sum + x
// End For
// Output ("Jumlah pengunjung :", sum)
// End Program
```




4. Balap Mobil Mini

```
package main

import "fmt"

func main() {
    var x, first string;
    var a, b int;

    a, b = 0, 0
    for i := 0; i < 10; i++ {
        fmt.Scan(&x)
        if x == "A" {
            a++
        } else if x == "B" {
            b++
        }
```

```
        if a == 5 && first == "" {
            first = "A"
        } else if b == 5 && first == "" {
            first = "B"
        } else if b > 5 || a > 5 {
            first = "tidak valid"
        }
    }
    fmt.Println("")
    fmt.Println(first)

}

// Program balapmobilmini

// Kamus
// x, first: string
// a, b, i: integer

// Algoritma
// a, b <- 0, 0
// first <- ""
// For i <- 0 to 9 do
//     Input (x)
//     If x == "A" then
//         a <- a + 1
//     Else If x == "B" then
//         b <- b + 1
//     End If
//     If a == 5 and first == "" then
//         first <- "A"
//     Else If b == 5 and first == "" then
//         first <- "B"
//     Else If b > 5 or a > 5 then
//         first <- "tidak valid"
//     End If
// End For
// Output (first)
// End Program
```



5. Digit Terurut

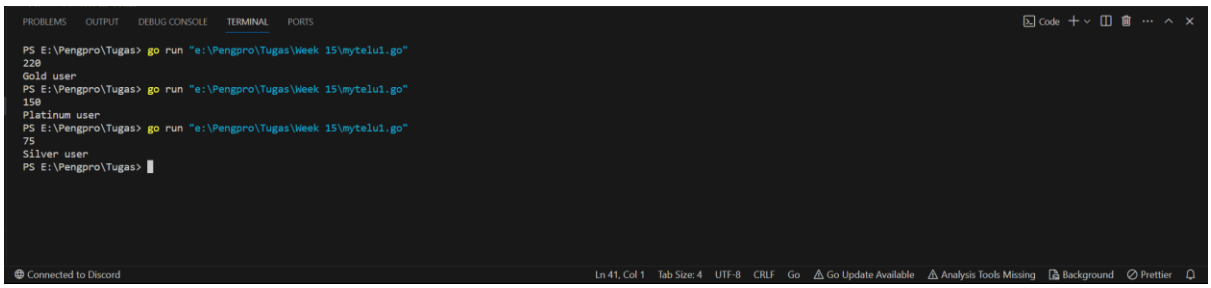
```go
package main

import "fmt"

func main() {
    var x, prev, now int
    var isAscending, isDecreasing bool

    fmt.Scan(&x)

    prev = x % 10
    x /= 10

    isAscending, isDecreasing = true, true

    for x > 0 {
        now = x % 10
        if prev > now {
            isDecreasing = false
        } else if prev < now {
            isAscending = false
        }
        x /= 10

        prev = now
    }

    if isAscending {
        fmt.Println("ascending")
    } else if isDecreasing {
        fmt.Println("decreasing")
    } else {
        fmt.Println("tidak terurut")
    }
}

// Program digitterurut

// Kamus
// x, prev, now: integer
// isAscending, isDecreasing: boolean

// Algoritma
// Input (x)
// prev <- x % 10
// x <- x / 10
// isAscending, isDecreasing <- true, true
```

```
// While x > 0 do
//     now <- x % 10
//     If prev > now then
//         isDecreasing <- false
//     Else If prev < now then
//         isAscending <- false
//     End If
//     x <- x / 10
//     prev <- now
// End While
// If isAscending then
//     Otput ("ascending")
// Else If isDecreasing then
//     Output ("decreasing")
// Else
//     Output ("tidak terurut")
// End If
// End Program
```


6a. My Tel-U 1

```go
package main

import "fmt"

func main() {
    var x int;

    fmt.Scan(&x)

    if x == 0 {
        x = 50
    }

    if x > 200 {
        fmt.Println("Gold user")
    } else if x >= 100 && x <= 200{
        fmt.Println("Platinum user")
    } else if x >= 50 && x < 100{
        fmt.Println("Silver user")
```

```
    }
}

// Program mytelusatu

// Kamus
// x: integer

// Algoritma
// Input (x)
// If x == 0 then
//     x <- 50
// End If
// If x > 200 then
//     Output ("Gold user")
// Else If x >= 100 dan x <= 200 then
//     Output ("Platinum user")
// Else If x >= 50 dan x <= 100 then
//     Output ("Silver user")
// End If
// End Program
```




6b. My Tel-u 2

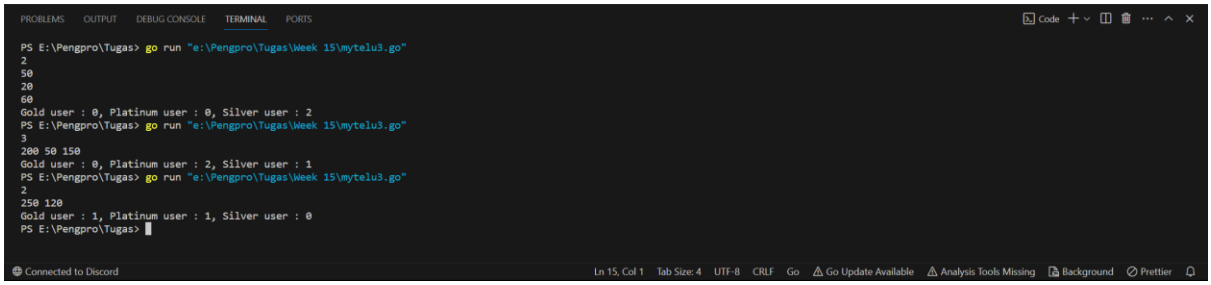
```
package main

import "fmt"

func main() {
    var x int;

    for x < 50 {
        fmt.Scan(&x)
    }

    if x > 200 {
        fmt.Println("Gold user")
    } else if x >= 100 && x <= 200{
        fmt.Println("Platinum user")
```

```
    } else if x >= 50 && x < 100{
        fmt.Println("Silver user")
    }
}

// Program myteludua

// Kamus
// x: integer

// Algoritma
// Input (x)
// While x < 50 do
//     Input (x)
// End While
// If x > dari 200 then
//     Output ("Gold user")
// Else If x >= 100 dan x <= 200 then
//     Output ("Platinum user")
// Else If x >= 50 dan x <= 100 then
//     Output ("Silver user")
// End If
// End Program
```


6c. My Tel-U 3

```
package main

import "fmt"

func main() {
    var x, n, gold, platinum, silver int

    fmt.Scan(&n)

    for i := 0; i < n; i++ {
        x = 0
        for x < 50 {
```

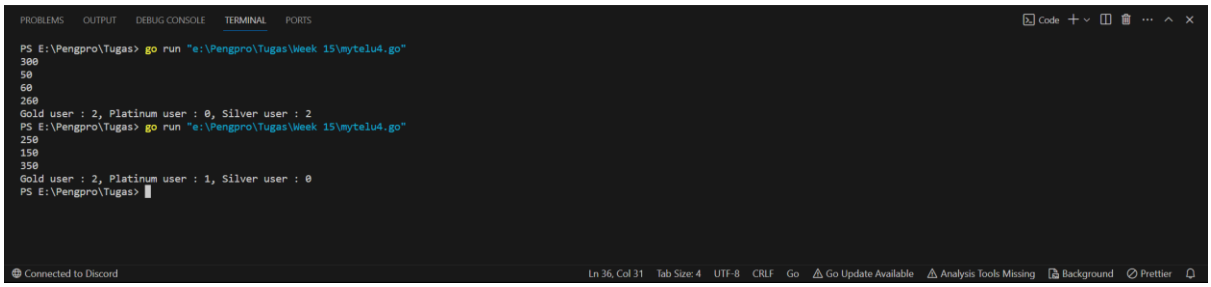
```
            fmt.Scan(&x)
        }

        if x > 200 {
            gold++
        } else if x >= 100 && x <= 200{
            platinum++
        } else if x >= 50 && x < 100{
            silver++
        }
    }

    fmt.Print("Gold user : ", gold, ", Platinum user : ", platinum, ", Silver
user : ", silver)
}

// Program mytelutiga

// Kamus
// x, n, gold, platinum, silver: Integer

// Algoritma
// Input (n)
// x <- 0
// For i <- 0 to n-1 do
//     Input (x)
//     x <- 0
//     While x < 50 do
//         Input (x)
//     End While
//     If x > 200 then
//         gold <- gold + 1
//     If x ≥ 100 and x ≤ 200 then
//         platinum <- platinum + 1
//     If x ≥ 50 and x < 100 then
//         silver <- silver + 1
//     End If
// End For
// Output "Gold user : ", gold, ", Platinum user : ", platinum, ", Silver user
: ", silver
// End Program
```




6d. My Tel-U 4

```go
package main

import "fmt"

func main() {
    var x, sum, gold, platinum, silver int;

    sum = 0
    for sum < 500 {
        x = 0
        for x < 50 {
            fmt.Scan(&x)
        }

        sum += x

        if x > 200 {
            gold++
        } else if x >= 100 && x <= 200{
            platinum++
        } else if x >= 50 && x < 100{
            silver++
        }
    }

    fmt.Print("Gold user : ", gold, ", Platinum user : ", platinum, ", Silver user : ", silver)
}

// Program mytelu4

// Kamus
// x, sum, gold, platinum, silver: Integer

// Algoritma
// sum <- 0
// gold, platinum, silver <- 0
// While sum < 500 do
//     x <- 0
```

```
//     While x < 50 do
//         Input (x)
//     End While
//     sum <- sum + x
//     If x > 200 then
//         gold <- gold + 1
//     If x >= 100 and x <= 200 then
//         platinum <- platinum + 1
//     If x >= 50 and x < 100 then
//         silver <- silver + 1
//     End If
// End While
// Output "Gold user : ", gold, ", Platinum user : ", platinum, ", Silver user
: ", silver
```

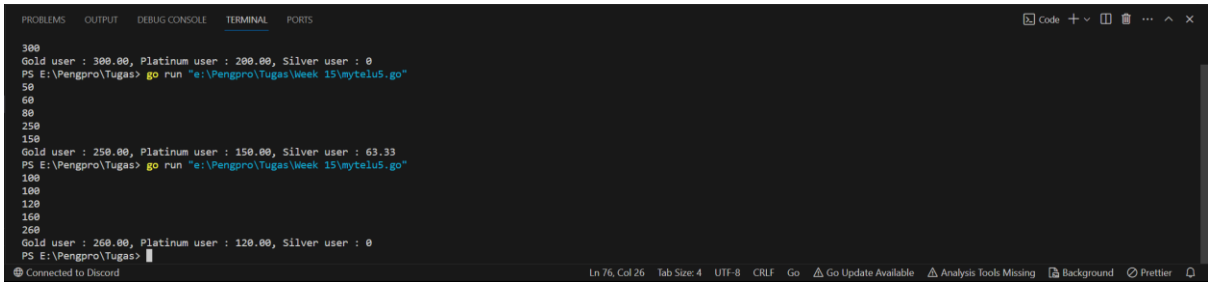



6e. My Tel-U 5

```go
package main

import "fmt"

func main() {
    var x, sum, sumGold, sumPlatinum, sumSilver, countGold, countPlatinum,
countSilver int
    var averageGold, averagePlatinum, averageSilver float64

    sum, sumGold, sumPlatinum, sumSilver = 0, 0, 0, 0

    for sum < 500 {
        x = 0
        for x < 50 {
            fmt.Scan(&x)
        }

        sum += x

        if x > 200 {
            countGold++
            sumGold += x
```

```
        } else if x >= 100 && x <= 200{
            countPlatinum++
            sumPlatinum += x
        } else if x >= 50 && x < 100{
            countSilver++
            sumSilver += x
        }
    }

    averageGold = float64(sumGold) / float64(countGold)
    averagePlatinum = float64(sumPlatinum) / float64(countPlatinum)
    averageSilver = float64(sumSilver) / float64(countSilver)

    if averageGold != averageGold {
        averageGold = 0

        fmt.Print("Gold user : ", averageGold)
    } else {
        fmt.Printf("Gold user : %.2f", averageGold)
    }

    if averagePlatinum != averagePlatinum {
        averagePlatinum = 0

        fmt.Print(", Platinum user : ", averagePlatinum)
    } else {

        fmt.Printf(", Platinum user : %.2f", averagePlatinum)
    }

    if averageSilver != averageSilver {
        averageSilver = 0

        fmt.Print(", Silver user : ", averageSilver)
    } else {
        fmt.Printf(", Silver user : %.2f", averageSilver)
    }

}

// Program mytelulima

// Kamus
// x, sum, sumGold, sumPlatinum, sumSilver, countGold, countPlatinum,
countSilver : Interger
// averageGold, averagePlatinum, averageSilver : Real

// Algoritma
```

```
// sum, sumGold, sumPlatinum, sumSilver <- 0, 0, 0, 0
//     while sum < 500 do
//      x <- 0
//      while x < 50 do
//          Input (x)
//      End While
// sum <- sum + x
//        if x > 200 then
//          countGold <- countGold + 1
//          sumGold <- sumGold + x
//              else if x >= 100 and x <= 200 then
//                  countPlatinum <- countPlatinum + 1
//                  sumPlatinum <- sumPlatinum + x
//                  countSilver <- countSilver + 1
//                  sumSilver <- sumSilver + x
//          End If
//      End While

// averageGold <- sumGold / countGold
// averagePlatinum <- sumPlatinum / countPlatinum
// averageSilver <- sumSilver / countSilver

// if averageGold != averageGold Then
//      averageGold <- 0
//      Output ("Gold user : ", averageGold)
//  else
//  Output ("Gold user : ", averageGold )
// End If

//  if averagePlatinum != averagePlatinum then
//      averagePlatinum <- 0
//      Output (", Platinum user : ", averagePlatinum)
//  else
//  Output (", Platinum user : ", averagePlatinum )
// End If

// if averageSilver != averageSilver then
//      averageSilver <- 0
//      Output (", Silver user : ", averageSilver)
//  else
//  Output (", Silver user : ", averageSilver )
// End If

// End Program
```


PROBLEMS
OUTPUT
DEBUG CONSOLE
TERMINAL
PORTS
Code
300
Gold user : 300.00, Platinum user : 200.00, Silver user : 0
PS E:\Pengpro\Tugas> go run "e:\Pengpro\Tugas\Week 15\mytelu5.go"
50
60
80
250
150
Gold user : 250.00, Platinum user : 150.00, Silver user : 63.33
PS E:\Pengpro\Tugas> go run "e:\Pengpro\Tugas\Week 15\mytelu5.go"
100
100
120
160
260
Gold user : 260.00, Platinum user : 120.00, Silver user : 0
PS E:\Pengpro\Tugas>
Connected to Discord
Ln 76, Col 26
Tab Size: 4
UTF-8
CRLF
Go
Go Update Available
Analysis Tools Missing
Background
Prettier