# TUGAS RESPONSI

# SISTEM OPERASI PRAKTIK - V

DISUSUN OLEH:

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**PROGRAM STUDI TEKNIK INFORMATIKA**

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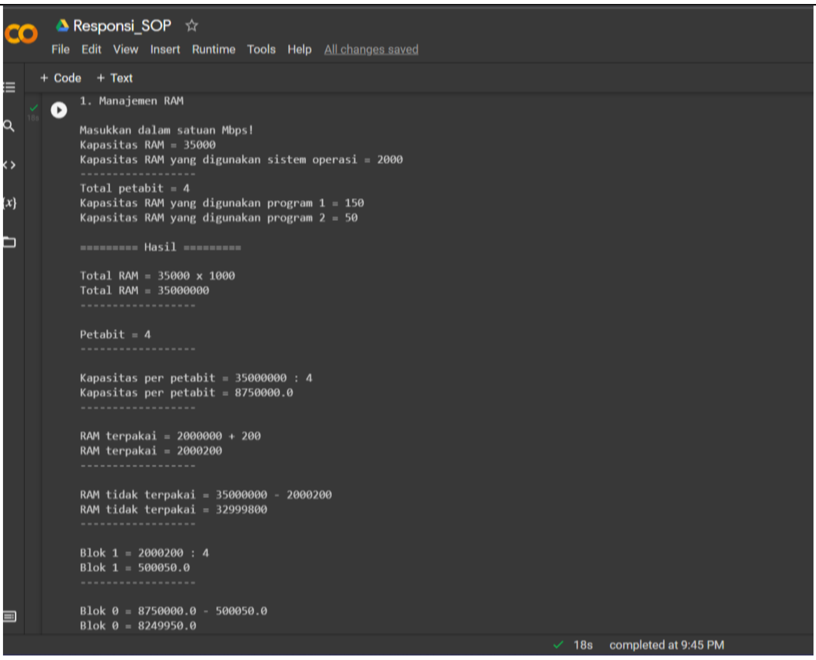
1. Simulasi Manajemen RAM

- Source Code

```
print("1. Manajemen RAM")
print("")

print("Masukkan dalam satuan Mbps! ")
ram = int(input("Kapasitas RAM = "))
sistem_operasi = int(input("Kapasitas RAM yang digunakan sistem
operasi = "))
print("------------------")
petabit = int(input("Total petabit = "))
program1 = int(input("Kapasitas RAM yang digunakan program 1 = "))
program2 = int(input("Kapasitas RAM yang digunakan program 2 = "))

konvert_ram = ram*1000 #konversi satuan dari Mbps ke Kbps
konvert_os = sistem_operasi*1000 #konversi satuan dari Mbps ke Kbps
total_program = program1 + program2
ram_terpakai = konvert_os + total_program
perpetabit = konvert_ram / petabit
blok_1 = ram_terpakai / petabit
ram_tidakterpakai = konvert_ram - ram_terpakai
blok_0 = perpetabit - blok_1

print("")
print("========= Hasil =========")
print("")

print("Total RAM = " +str(ram)+ " x 1000")
print("Total RAM = " +str(konvert_ram))
print("------------------")
print("")

print("Petabit = " +str(petabit))
print("------------------")
print("")

print("Kapasitas per petabit = " +str(konvert_ram)+ " : "
+str(petabit))
print("Kapasitas per petabit = " +str(perpetabit))
print("------------------")
print("")

print("RAM terpakai = " +str(konvert_os)+ " + " +str(total_program))
print("RAM terpakai = " +str(ram_terpakai))
print("------------------")
print("")

print("RAM tidak terpakai = " +str(konvert_ram)+ " - "
+str(ram_terpakai))
print("RAM tidak terpakai = " +str(ram_tidakterpakai))
print("------------------")
print("")

print("Blok 1 = " +str(ram_terpakai)+ " : " +str(petabit))
print("Blok 1 = " +str(blok_1))
print("------------------")
print("")
print("Blok 0 = " +str(perpetabit)+ " - " +str(blok_1))
print("Blok 0 = " +str(blok_0))
```

- Screenshoot Hasil Running



```
1. Manajemen RAM

Masukkan dalam satuan Mbps!
Kapasitas RAM = 35000
Kapasitas RAM yang digunakan sistem operasi = 2000
-----------------
Total petabit = 4
Kapasitas RAM yang digunakan program 1 = 150
Kapasitas RAM yang digunakan program 2 = 50

========= Hasil =========

Total RAM = 35000 x 1000
Total RAM = 35000000
-----------------

Petabit = 4
-----------------

Kapasitas per petabit = 35000000 : 4
Kapasitas per petabit = 8750000.0
-----------------

RAM terpakai = 2000000 + 200
RAM terpakai = 2000200
-----------------

RAM tidak terpakai = 35000000 - 2000200
RAM tidak terpakai = 32999800
-----------------

Blok 1 = 2000200 : 4
Blok 1 = 500050.0
-----------------

Blok 0 = 8750000.0 - 500050.0
Blok 0 = 8249950.0
```

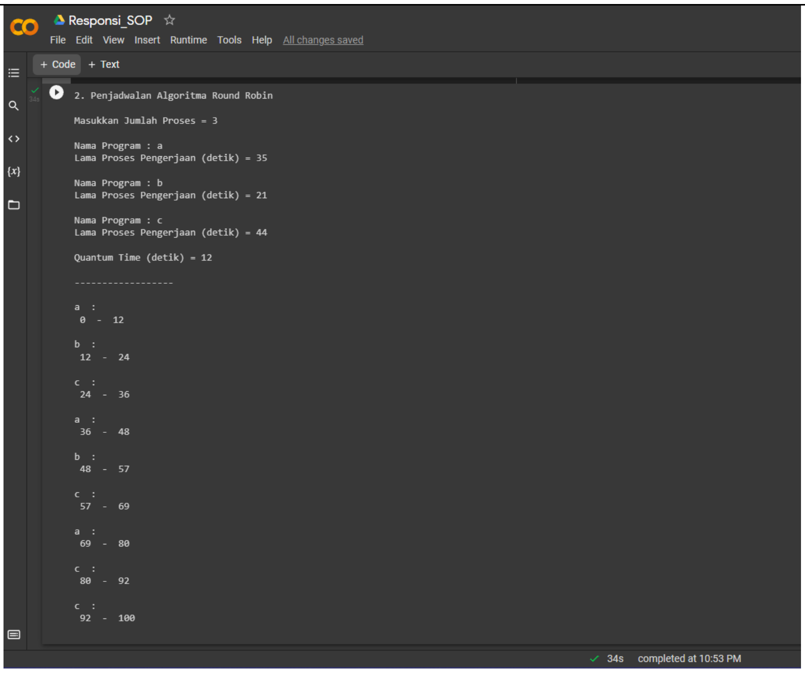
2. Simulasi penjadwalan Round Robin

- Source Code

```
print("2. Penjadwalan Algoritma Round Robin")
print("")

import os
program = []

def head():
    os.system("cls")

    jml_proses = int(input("Masukkan Jumlah Proses = "))
    print("")

    for i in range(jml_proses):
        nama_program = input("Nama Program : ")
        lama_proses = int(input("Lama Proses Pengerjaan (detik) = "))
        print("")
        program.append([nama_program, lama_proses])

    quantum = int(input("Quantum Time (detik) = "))
    waktu_selesai = 0
    for i in program:
        waktu_selesai += i[1]
    print("")
    print("------------------")
    print("")
    showRR(waktu_selesai, quantum, program)
```

```
        def showRR(waktu_selesai, quantum, programlist):
            start = 0
            while start < waktu_selesai:
                for i,data in enumerate(programlist):
                    nama_prog = data[0]
                    lama_prog = data[1]
                    sisa = lama_prog - quantum

                    if(lama_prog >= quantum):
                        print(nama_prog,  "  :  \n",  start,  "  -  ",  start  +
        quantum )
                    else:
                        print(nama_prog,  "  :  \n",  start,  "  -  ",  start  +
        lama_prog )

                    print("")
                    if(lama_prog >= quantum):
                        start += quantum
                    else:
                        start += lama_prog

                    if( sisa > 0):
                        program.append([nama_prog, sisa])
head()
```

- Screenshoot Hasil Running



```
2. Penjadwalan Algoritma Round Robin

Masukkan Jumlah Proses = 3

Nama Program : a
Lama Proses Pengerjaan (detik) = 35

Nama Program : b
Lama Proses Pengerjaan (detik) = 21

Nama Program : c
Lama Proses Pengerjaan (detik) = 44

Quantum Time (detik) = 12

-----------------

a  :
 0  -  12

b  :
 12  -  24

c  :
 24  -  36

a  :
 36  -  48

b  :
 48  -  57

c  :
 57  -  69

a  :
 69  -  80

c  :
 80  -  92

c  :
 92  -  100
```