RESPONSI
SISTEM OPERASI PRAKTIK – V

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1. Membuat Program Simulasi Manajemen ram didalam komputer Menggunakan
   Bahasa Pemrograman phyton .

   ➢ Code Pemrograman

```python
print("")
print("==========Responsi SO Praktik Simulasi Management
RAM==========")
print("")

total_ram=int(input("Kapasitas total ram (Mbps) = "))
total_petabit=int(input("Total peta bit = "))
os=int(input("Kapasitas Sistem operasi (Mbps) = "))
program1=int(input("Kapasitas program 1 = "))
program2=int(input("Kapasitas program 2 = "))

#convert dari Mbps ke Kbps
ramtokb=total_ram*1024
ostokb=os*1024

#rumus
total=program1+program2
perpetabit=ramtokb/total_petabit
ram_terpakai=ostokb+total
blok_bernilai1=ram_terpakai/total_petabit
ram_tdk_terpakai=ramtokb-ram_terpakai
blok_bernilai0=perpetabit-blok_bernilai1


print("")
print("==========Hasil Simulasi Management RAM==========")
print("")


print("Total ram: "+str(ramtokb))
print("Peta bit: "+str(total_petabit))
print("Kapasitas per petabit: "+str(perpetabit))
print("Ram terpakai: "+str(ram_terpakai))
print("Ram tidak terpakai: "+str(ram_tdk_terpakai))
print("Jumlah blok bernilai 1: "+str(blok_bernilai1))
print("Jumlah blok bernilai 0: "+str(blok_bernilai0))

print("")
print("================================================")
print("")
```

➢ Screenshot Hasil running program

2. Membuat Program Simulasi Penjadwalan dengan Algoritma Round Robin <u>Bahasa Pemrograman phyton</u> .

➢ Code Pemrograman

```python
print("")
print("==========Simulasi Management Penjadwalan Algoritma Round
Robin==========")
print("")

print("")
print("Penjadwalan :")
print("")

import os
program = []

def head():
    os.system("cls")
    jumlah_proses = int(input('Jumlah Proses : '))

    for i in range(jumlah_proses):
        nama_program = input('Nama Program : ')
        lama_program = int(input('Lama Program [Menit] :'))
        program.append([nama_program,lama_program])

    quantum = int(input('Quantum Time / Jatah Waktu [Menit] :
'))

    waktu_selesai = 0
    for i in program:
        waktu_selesai += i[1]

    print("")
```

```
        showRR(waktu_selesai,quantum,program)


#rumus
def showRR(waktu_selesai,quantum,programlist):
    start = 0
    while start < waktu_selesai:
        for i,data in enumerate(programlist):
            nm_program = data[0]
            lm_program = data[1]
            sisa = lm_program - quantum

            if(lm_program >= quantum):
                print(nm_program,' = ',start, ' - ', start +
quantum )
            else:
                print(nm_program,' = ',start, ' - ', start +
lm_program )

            if(lm_program >= quantum):
                start += quantum
            else:
                start += lm_program

            if( sisa > 0):
                program.append([nm_program,sisa])

head()

print("")
print("=================================================")
print("")
```

> Screenshot Hasil running program


```
+ Kode  + Teks   Tidak dapat menyimpan perubahan                          RAM ▮
                                                                          Disk ▮

   ==========Simulasi Management Penjadwalan Algoritma Round Robin==========

   Penjadwalan :

   Jumlah Proses : 4
   Nama Program : Netflix
   Lama Program [Menit] :95
   Nama Program : Youtobe
   Lama Program [Menit] :60
   Nama Program : Instagram
   Lama Program [Menit] :55
   Nama Program : Tiktok
   Lama Program [Menit] :160
   Quantum Time / Jatah Waktu [Menit] : 5000

   Netflix   =  0  -  95
   Youtobe   =  95  -  155
   Instagram = 155  -  210
   Tiktok    = 210  -  370

   =================================================
```