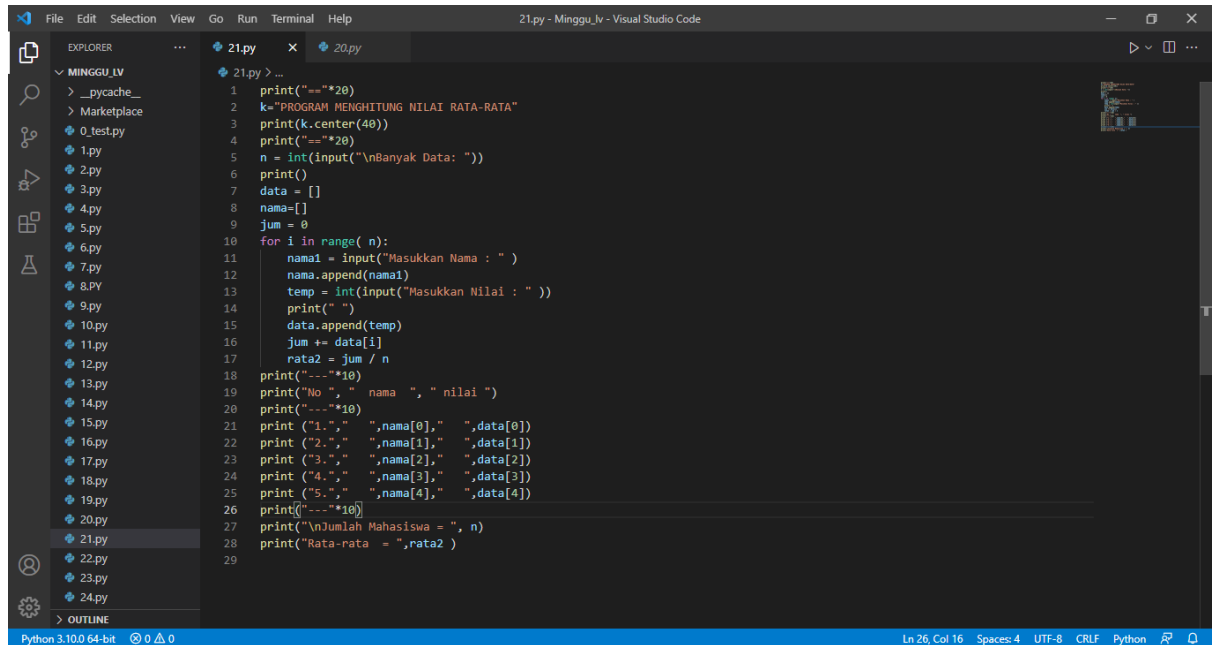


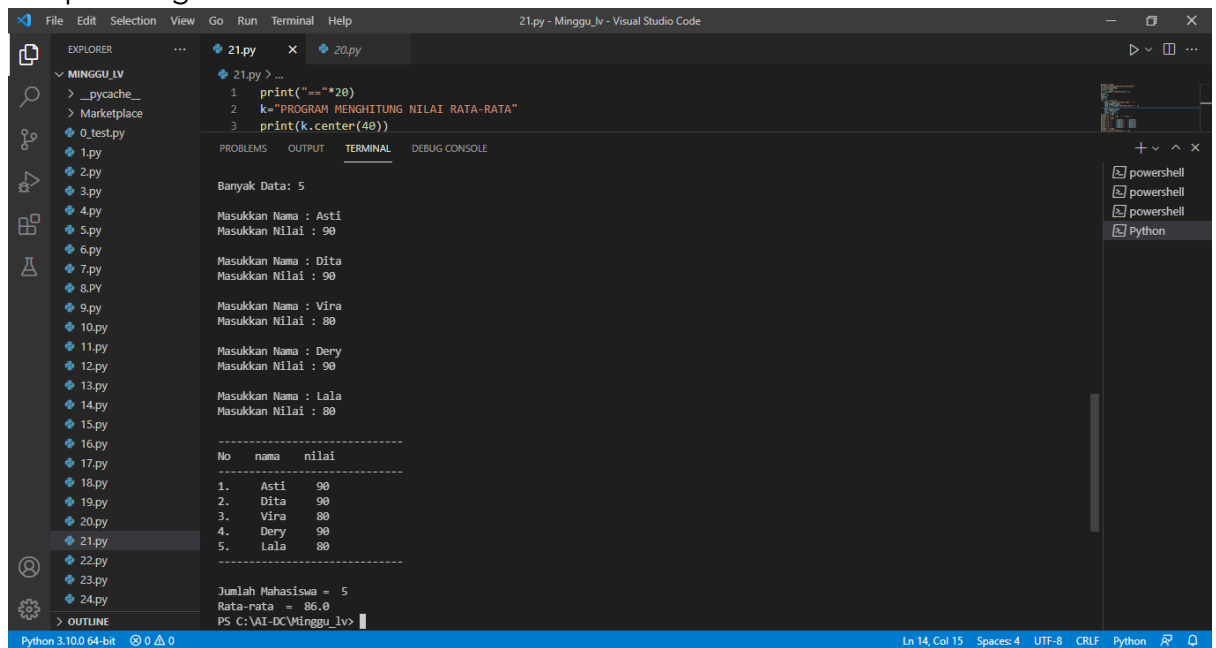
# Praktikum Pemrograman Python

## 1. Menghitung Nilai Rata-Rata Mahasiswa



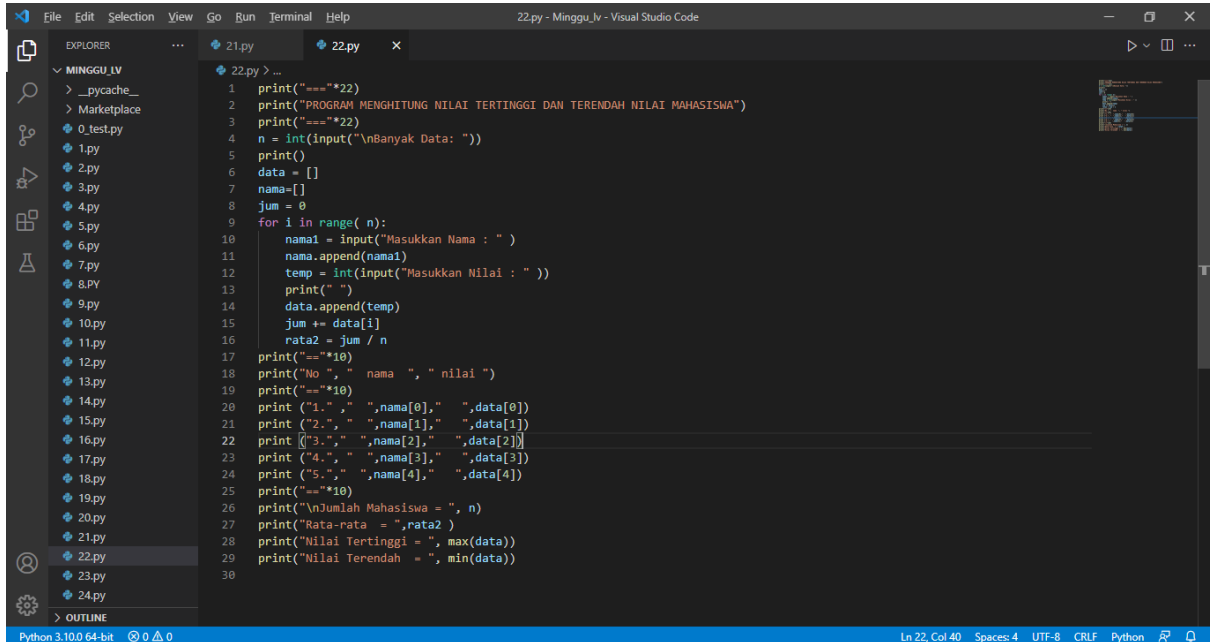
```
1 print("=="*20)
2 k="PROGRAM MENGHITUNG NILAI RATA-RATA"
3 print(k.center(40))
4 print("=="*20)
5 n = int(input("\nBanyak Data: "))
6 print()
7 data = []
8 nama=[]
9 jum = 0
10 for i in range( n):
11     nama1 = input("Masukkan Nama : " )
12     nama.append(nama1)
13     temp = int(input("Masukkan Nilai : " ))
14     print(" ")
15     data.append(temp)
16     jum += data[i]
17     rata2 = jum / n
18 print("----"*10)
19 print("No ", " nama ", " nilai ")
20 print("----"*10)
21 print ("1.", " ",nama[0]," ",data[0])
22 print ("2.", " ",nama[1]," ",data[1])
23 print ("3.", " ",nama[2]," ",data[2])
24 print ("4.", " ",nama[3]," ",data[3])
25 print ("5.", " ",nama[4]," ",data[4])
26 print("----"*10)
27 print("\nJumlah Mahasiswa = ", n)
28 print("Rata-rata = ",rata2 )
29
```

## Output Program:



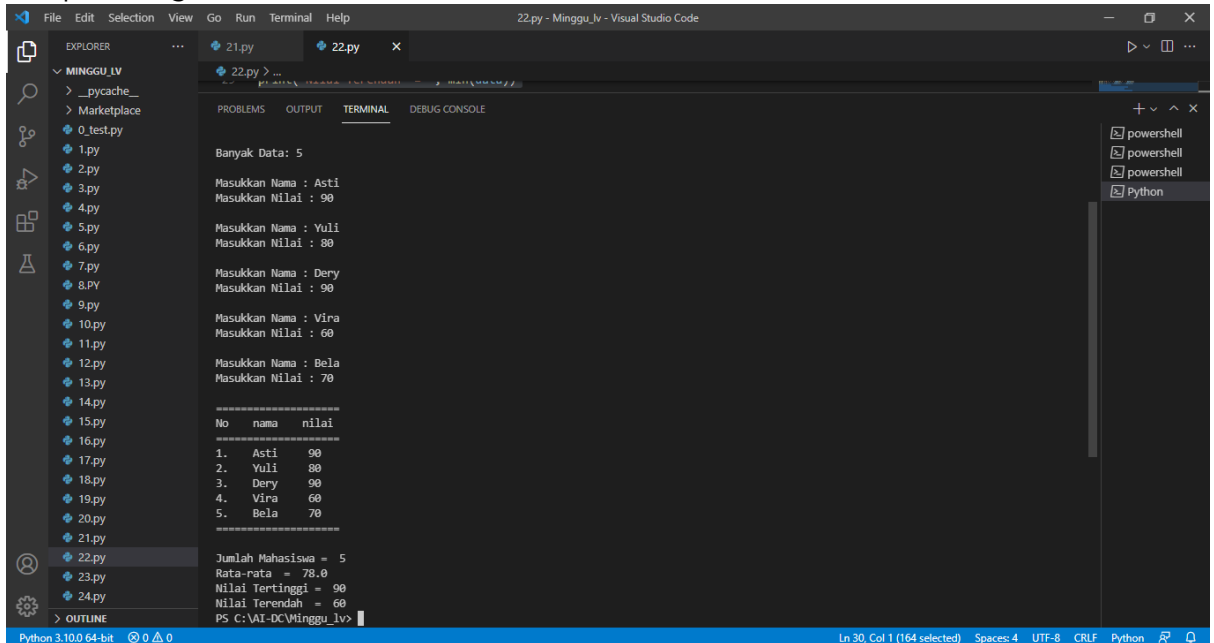
```
Banyak Data: 5
Masukkan Nama : Asti
Masukkan Nilai : 90
Masukkan Nama : Dita
Masukkan Nilai : 90
Masukkan Nama : Vira
Masukkan Nilai : 80
Masukkan Nama : Dery
Masukkan Nilai : 90
Masukkan Nama : Lala
Masukkan Nilai : 80
-----
No  nama  nilai
-----
1.  Asti   90
2.  Dita   90
3.  Vira   80
4.  Dery   90
5.  Lala   80
-----
Jumlah Mahasiswa = 5
Rata-rata = 86.0
PS C:\AI-DC\Minggu IV>
```

## 2. Program Menentukan Nilai Tertinggi Dan Terendah Dari Nilai Mahasiswa



```
1 print("====*22")
2 print("PROGRAM MENGHITUNG NILAI TERTINGGI DAN TERENDAH NILAI MAHASISWA")
3 print("====*22")
4 n = int(input("\nBanyak Data: "))
5 print()
6 data = []
7 nama = []
8 jum = 0
9 for i in range( n):
10     nama1 = input("Masukkan Nama : " )
11     nama.append(nama1)
12     temp = int(input("Masukkan Nilai : " ))
13     print(" ")
14     data.append(temp)
15     jum += data[i]
16     rata2 = jum / n
17 print("====*10")
18 print("No. ", " nama ", " nilai ")
19 print("====*10")
20 print ("1.", " ", nama[0], " ", data[0])
21 print ("2.", " ", nama[1], " ", data[1])
22 print ("3.", " ", nama[2], " ", data[2])
23 print ("4.", " ", nama[3], " ", data[3])
24 print ("5.", " ", nama[4], " ", data[4])
25 print("====*10")
26 print("\nJumlah Mahasiswa = ", n)
27 print("Rata-rata = ",rata2 )
28 print("Nilai Tertinggi = ", max(data))
29 print("Nilai Terendah = ", min(data))
30
```

### Output Program :



```
Banyak Data: 5

Masukkan Nama : Asti
Masukkan Nilai : 90

Masukkan Nama : Yuli
Masukkan Nilai : 80

Masukkan Nama : Dery
Masukkan Nilai : 90

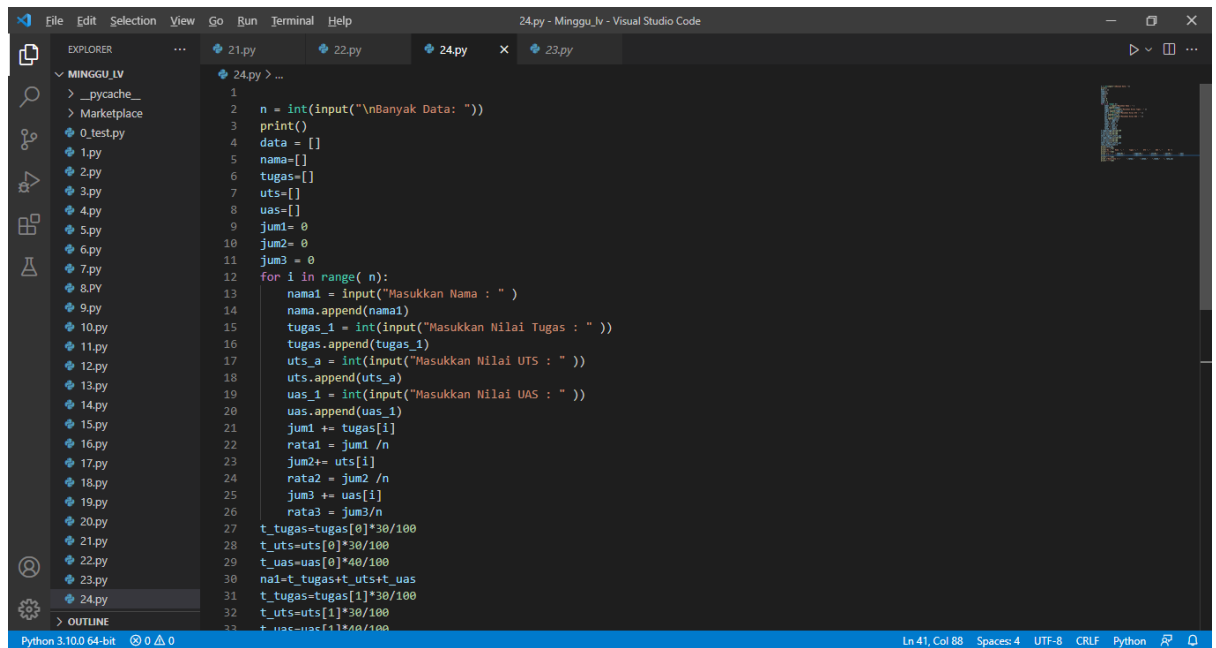
Masukkan Nama : Vira
Masukkan Nilai : 60

Masukkan Nama : Bela
Masukkan Nilai : 70

=====
No  nama  nilai
=====
1.  Asti   90
2.  Yuli   80
3.  Dery   90
4.  Vira   60
5.  Bela   70
=====

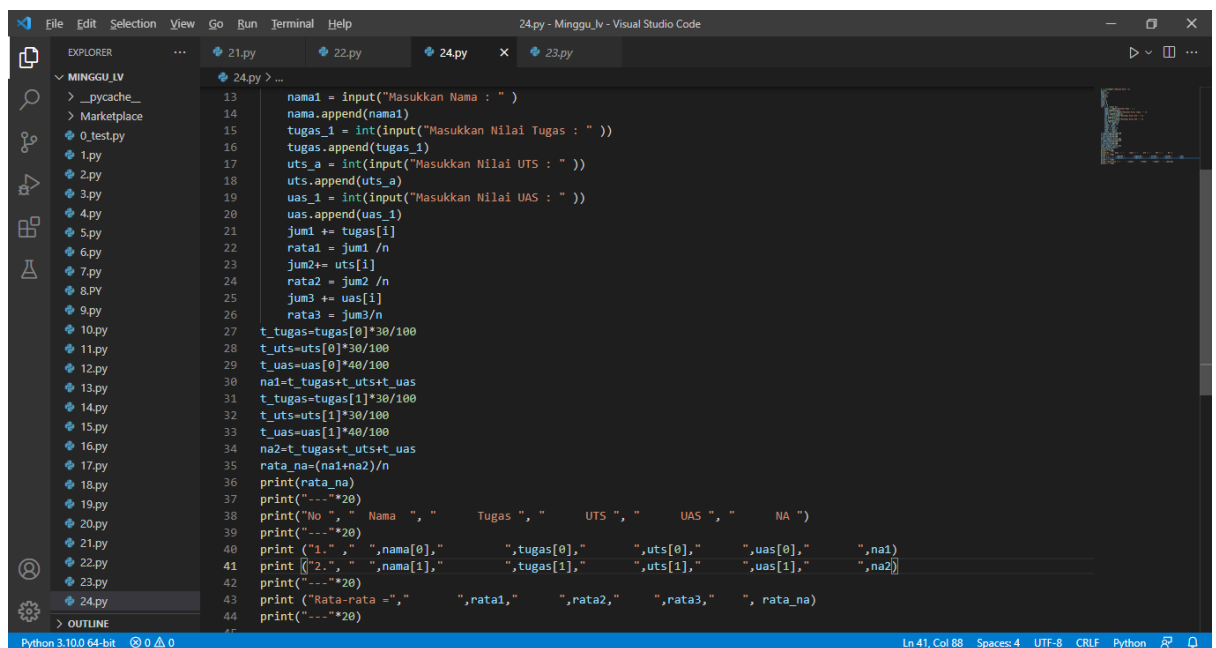
Jumlah Mahasiswa = 5
Rata-rata = 78.0
Nilai Tertinggi = 90
Nilai Terendah = 60
PS C:\VAI-DC\minggu_iv>
```

### 3. Program Pengolahan Nilai Mahasiswa



This screenshot shows the first part of a Python program in Visual Studio Code. The Explorer panel on the left shows a project named 'MINGGU\_IV' with various files. The main editor displays the code for '24.py'.

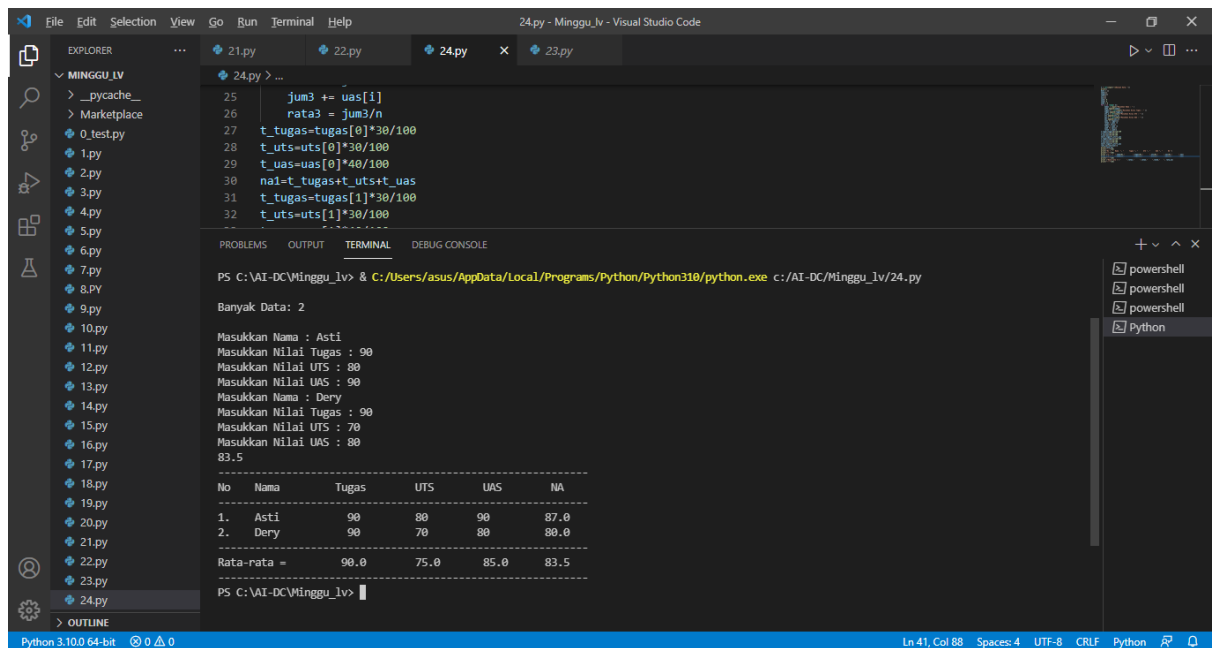
```
1
2 n = int(input("\nBanyak Data: "))
3 print()
4 data = []
5 nama=[]
6 tugas=[]
7 uts=[]
8 uas=[]
9 jum1= 0
10 jum2= 0
11 jum3 = 0
12 for i in range( n):
13     nama1 = input("Masukkan Nama : " )
14     nama.append(nama1)
15     tugas_1 = int(input("Masukkan Nilai Tugas : " ))
16     tugas.append(tugas_1)
17     uts_a = int(input("Masukkan Nilai UTS : " ))
18     uts.append(uts_a)
19     uas_1 = int(input("Masukkan Nilai UAS : " ))
20     uas.append(uas_1)
21     jum1 += tugas[i]
22     rata1 = jum1 /n
23     jum2+= uts[i]
24     rata2 = jum2 /n
25     jum3 += uas[i]
26     rata3 = jum3/n
27 t_tugas=tugas[0]*30/100
28 t_uts=uts[0]*30/100
29 t_uas=uas[0]*40/100
30 na1=t_tugas+t_uts+t_uas
31 t_tugas=tugas[1]*30/100
32 t_uts=uts[1]*30/100
33 t_uas=uas[1]*40/100
```



This screenshot shows the second part of the Python program in Visual Studio Code. The Explorer panel on the left shows the same project. The main editor displays the code for '24.py'.

```
13     nama1 = input("Masukkan Nama : " )
14     nama.append(nama1)
15     tugas_1 = int(input("Masukkan Nilai Tugas : " ))
16     tugas.append(tugas_1)
17     uts_a = int(input("Masukkan Nilai UTS : " ))
18     uts.append(uts_a)
19     uas_1 = int(input("Masukkan Nilai UAS : " ))
20     uas.append(uas_1)
21     jum1 += tugas[i]
22     rata1 = jum1 /n
23     jum2+= uts[i]
24     rata2 = jum2 /n
25     jum3 += uas[i]
26     rata3 = jum3/n
27 t_tugas=tugas[0]*30/100
28 t_uts=uts[0]*30/100
29 t_uas=uas[0]*40/100
30 na1=t_tugas+t_uts+t_uas
31 t_tugas=tugas[1]*30/100
32 t_uts=uts[1]*30/100
33 t_uas=uas[1]*40/100
34 na2=t_tugas+t_uts+t_uas
35 rata_na=(na1+na2)/n
36 print(rata_na)
37 print("----*20)
38 print("No ", " Nama ", " Tugas ", " UTS ", " UAS ", " NA ")
39 print("----*20)
40 print ("1.", " ",nama[0], " ",tugas[0], " ",uts[0], " ",uas[0], " ",na1)
41 print ("2.", " ",nama[1], " ",tugas[1], " ",uts[1], " ",uas[1], " ",na2])
42 print("----*20)
43 print ("Rata-rata =", " ",rata1, " ",rata2, " ",rata3, " ", rata_na)
44 print("----*20)
45
```

## Output Program :



```
File Edit Selection View Go Run Terminal Help
24.py - Minggu_lv - Visual Studio Code

EXPLORER
MINGGU_LV
  _pycache_
  Marketplace
  0_test.py
  1.py
  2.py
  3.py
  4.py
  5.py
  6.py
  7.py
  8.py
  9.py
  10.py
  11.py
  12.py
  13.py
  14.py
  15.py
  16.py
  17.py
  18.py
  19.py
  20.py
  21.py
  22.py
  23.py
  24.py
  OUTLINE

24.py
25      jum3 += uas[1]
26      rata3 = jum3/n
27      t_tugas=tugas[0]*30/100
28      t_uts=uts[0]*30/100
29      t_uas=uas[0]*40/100
30      na1=t_tugas+t_uts+t_uas
31      t_tugas=tugas[1]*30/100
32      t_uts=uts[1]*30/100

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE
PS C:\AI-DC\Minggu_lv> & C:/Users/asus/AppData/Local/Programs/Python/Python310/python.exe c:/AI-DC/Minggu_lv/24.py

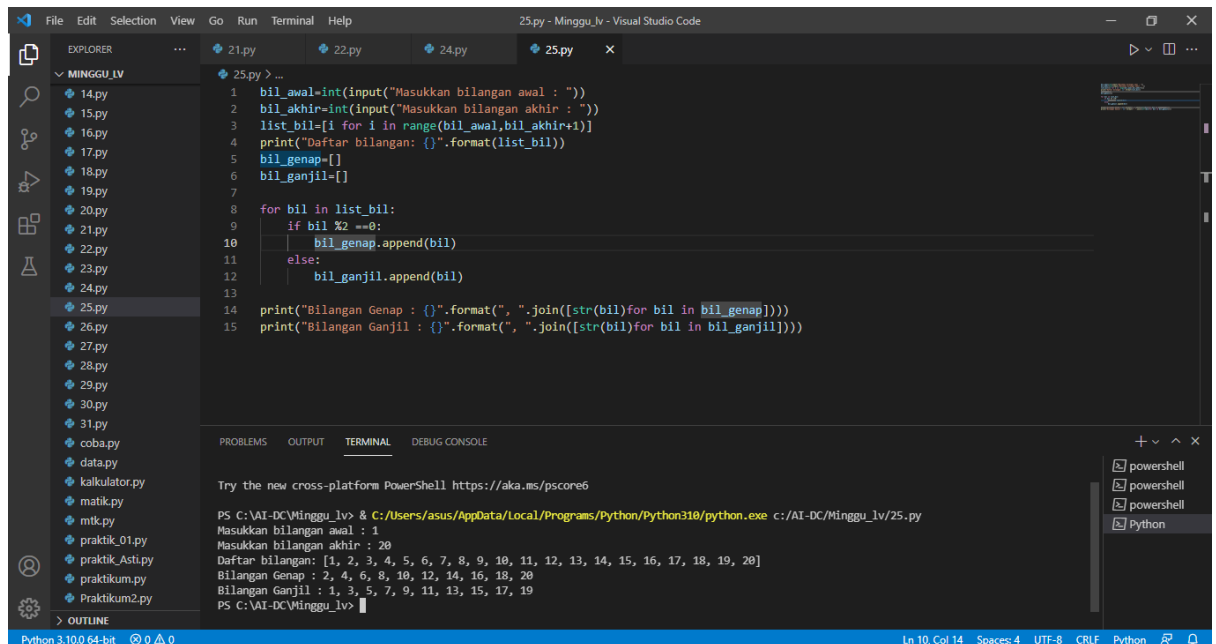
Banyak Data: 2
Masukkan Nama : Asti
Masukkan Nilai Tugas : 90
Masukkan Nilai UTS : 80
Masukkan Nilai UAS : 90
Masukkan Nama : Dery
Masukkan Nilai Tugas : 90
Masukkan Nilai UTS : 70
Masukkan Nilai UAS : 80
83.5

No  Nama      Tugas    UTS     UAS     NA
---  ---
1.  Asti       90       80      90      87.0
2.  Dery       90       70      80      80.0

Rata-rata =      90.0      75.0      85.0      83.5

PS C:\AI-DC\Minggu_lv>
```

## 4. Program Menampilkan Bilangan Genap Dan Ganjil



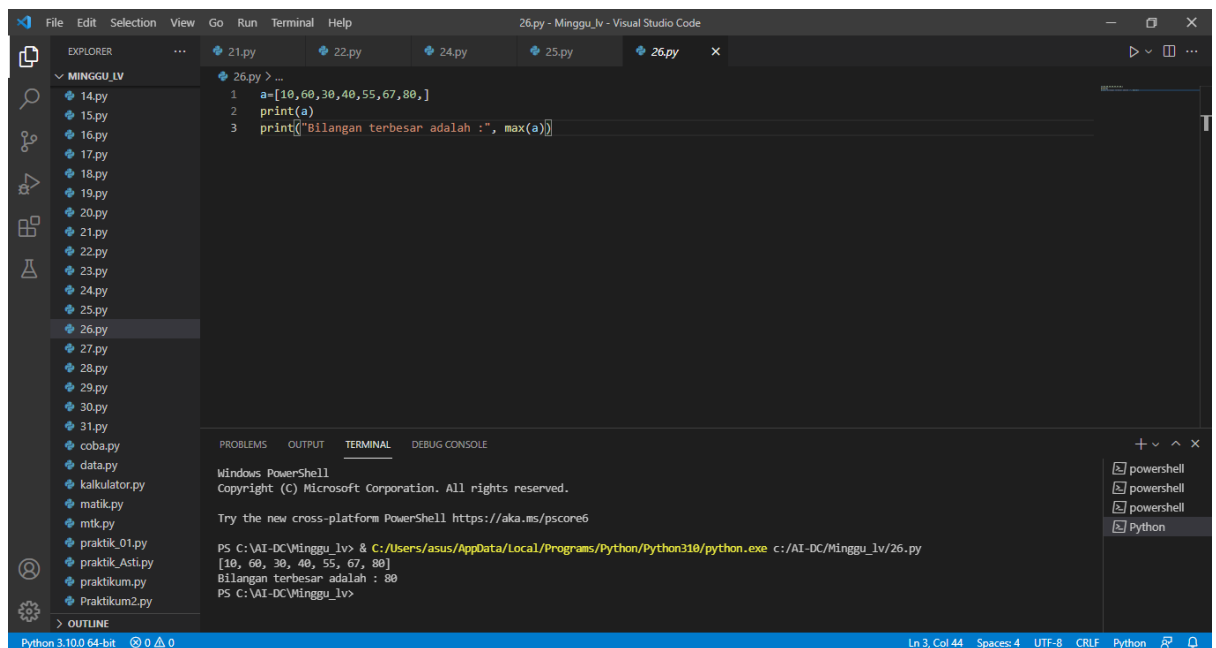
```
File Edit Selection View Go Run Terminal Help
25.py - Minggu_lv - Visual Studio Code

EXPLORER
MINGGU_LV
  14.py
  15.py
  16.py
  17.py
  18.py
  19.py
  20.py
  21.py
  22.py
  23.py
  24.py
  25.py
  26.py
  27.py
  28.py
  29.py
  30.py
  31.py
  coba.py
  datapy
  kalkulator.py
  matik.py
  mtk.py
  praktik_01.py
  praktik_Asti.py
  praktikum.py
  praktikum2.py
  OUTLINE

25.py
1  bil_awal=int(input("Masukkan bilangan awal : "))
2  bil_akhir=int(input("Masukkan bilangan akhir : "))
3  list_bil=[i for i in range(bil_awal,bil_akhir+1)]
4  print("Daftar bilangan: {}".format(list_bil))
5  bil_genap=[]
6  bil_ganjil=[]
7
8  for bil in list_bil:
9      if bil %2 ==0:
10         bil_genap.append(bil)
11     else:
12         bil_ganjil.append(bil)
13
14  print("Bilangan Genap : {}".format(", ".join([str(bil) for bil in bil_genap])))
15  print("Bilangan Ganjil : {}".format(", ".join([str(bil) for bil in bil_ganjil])))

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE
Try the new cross-platform PowerShell https://aka.ms/pscore6
PS C:\AI-DC\Minggu_lv> & C:/Users/asus/AppData/Local/Programs/Python/Python310/python.exe c:/AI-DC/Minggu_lv/25.py
Masukkan bilangan awal : 1
Masukkan bilangan akhir : 20
Daftar bilangan: [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20]
Bilangan Genap : 2, 4, 6, 8, 10, 12, 14, 16, 18, 20
Bilangan Ganjil : 1, 3, 5, 7, 9, 11, 13, 15, 17, 19
PS C:\AI-DC\Minggu_lv>
```

## 5. Program Mencari Bilangan Terbesar Dari Sekelompok Data



The screenshot shows the Visual Studio Code interface with a file explorer on the left containing a folder named 'MINGGU\_IV' with files 14.py through 31.py, and other files like coba.py, data.py, kalkulator.py, matik.py, mtk.py, praktik\_01.py, praktik\_Asti.py, praktikum.py, and praktikum2.py. The main editor displays '26.py' with the following code:

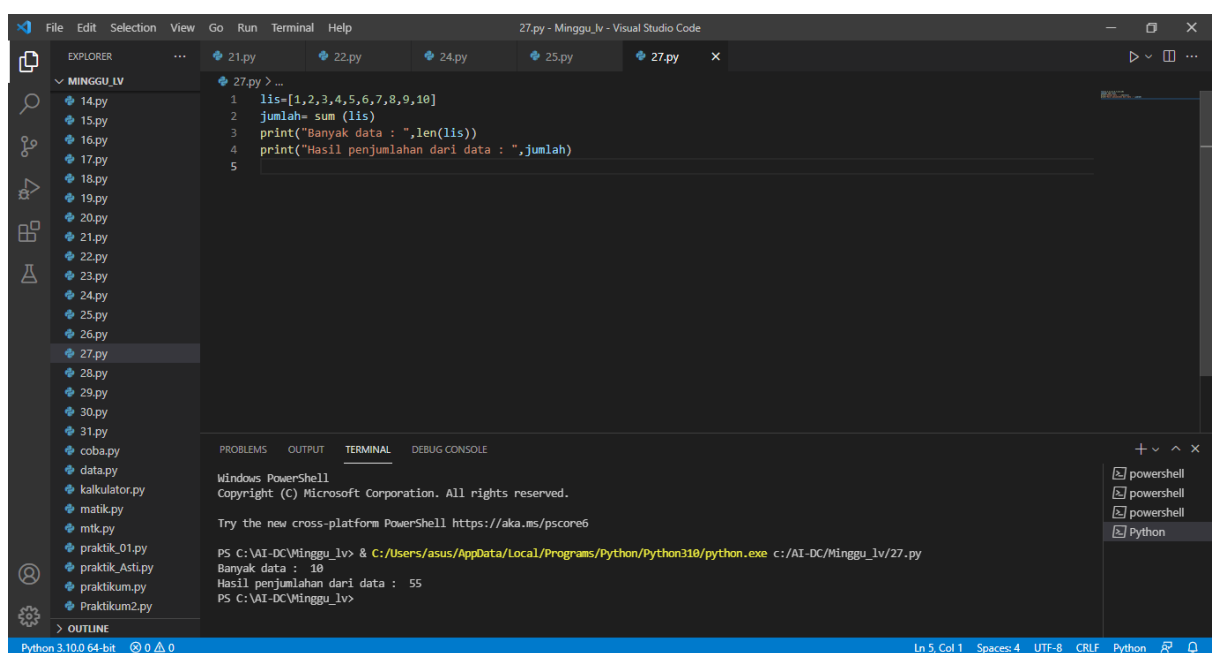
```
1 a=[10,60,30,40,55,67,80,]  
2 print(a)  
3 print("Bilangan terbesar adalah :", max(a))
```

The bottom panel shows the 'TERMINAL' tab with the following output:

```
Windows PowerShell  
Copyright (C) Microsoft Corporation. All rights reserved.  
  
Try the new cross-platform PowerShell https://aka.ms/pscore6  
  
PS C:\VAI-DC\Minggu_IV> & C:/Users/asus/AppData/Local/Programs/Python/Python310/python.exe c:/AI-DC/Minggu_IV/26.py  
[10, 60, 30, 40, 55, 67, 80]  
Bilangan terbesar adalah : 80  
PS C:\VAI-DC\Minggu_IV>
```

The status bar at the bottom indicates 'Python 3.10.0 64-bit', 'Ln 3, Col 44', 'Spaces: 4', 'UTF-8', 'CRLF', and 'Python'.

## 6. Program Menghitung Banyak Bilangan X Yang Tersimpan Di List



The screenshot shows the Visual Studio Code interface with the same file explorer as the previous image. The main editor displays '27.py' with the following code:

```
1 lis=[1,2,3,4,5,6,7,8,9,10]  
2 jumlah= sum (lis)  
3 print("Banyak data : ",len(lis))  
4 print("Hasil penjumlahan dari data : ",jumlah)  
5
```

The bottom panel shows the 'TERMINAL' tab with the following output:

```
Windows PowerShell  
Copyright (C) Microsoft Corporation. All rights reserved.  
  
Try the new cross-platform PowerShell https://aka.ms/pscore6  
  
PS C:\VAI-DC\Minggu_IV> & C:/Users/asus/AppData/Local/Programs/Python/Python310/python.exe c:/AI-DC/Minggu_IV/27.py  
Banyak data : 10  
Hasil penjumlahan dari data : 55  
PS C:\VAI-DC\Minggu_IV>
```

The status bar at the bottom indicates 'Python 3.10.0 64-bit', 'Ln 5, Col 1', 'Spaces: 4', 'UTF-8', 'CRLF', and 'Python'.

## 7. Program Menghitung Perkalian Matriks 2x2

```
1 X = [  
2     [12,7],  
3     [4 ,5],  
4     ]  
5 Y = [  
6     [5,8],  
7     [6,7],  
8     ]  
9 result = [[0,0],  
10          [0,0]]  
11  
12 for i in range(len(X)):  
13     for j in range(len(Y[0])):  
14         for k in range(len(Y)):  
15             result[i][j] += X[i][k] * Y[k][j]  
16 print("\nHasil Perkalian Matriks")  
17 for r in result:  
18     print(r)
```

Windows PowerShell  
Copyright (C) Microsoft Corporation. All rights reserved.  
  
Try the new cross-platform PowerShell <https://aka.ms/pscore6>  
  
PS C:\AI-DC\Minggu\_lv> & C:/Users/asus/AppData/Local/Programs/Python/Python310/python.exe c:/AI-DC/Minggu\_lv/28.py  
  
Hasil Perkalian Matriks  
[102, 145]  
[50, 67]  
PS C:\AI-DC\Minggu\_lv>

## 8. Program Menggabungkan Isi Dictionary

```
1 data1= {"nim": "12345678", "nama": "Bella", "IPK": 3.90}  
2 data2={"hobi": "main bola", "alamat": "bandung"}  
3 siswa = {}  
4 for k in data1:  
5     siswa[k]=data1[k]  
6 for k in data2:  
7     siswa[k]=data2[k]  
8 print("\nHasil Penggabungan Data ")  
9 print(f"Siswa : {siswa}")
```

Windows PowerShell  
Copyright (C) Microsoft Corporation. All rights reserved.  
  
Try the new cross-platform PowerShell <https://aka.ms/pscore6>  
  
PS C:\AI-DC\Minggu\_lv> & C:/Users/asus/AppData/Local/Programs/Python/Python310/python.exe c:/AI-DC/Minggu\_lv/30.py  
  
Hasil Penggabungan Data  
Siswa : {'nim': '12345678', 'nama': 'Bella', 'IPK': 3.9, 'hobi': 'main bola', 'alamat': 'bandung'}  
PS C:\AI-DC\Minggu\_lv>