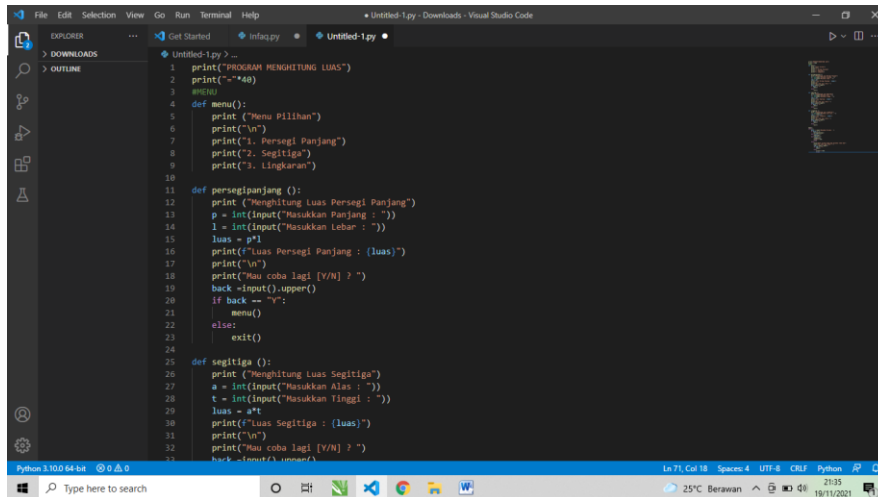


Nama: Ade Lilis Aprianti

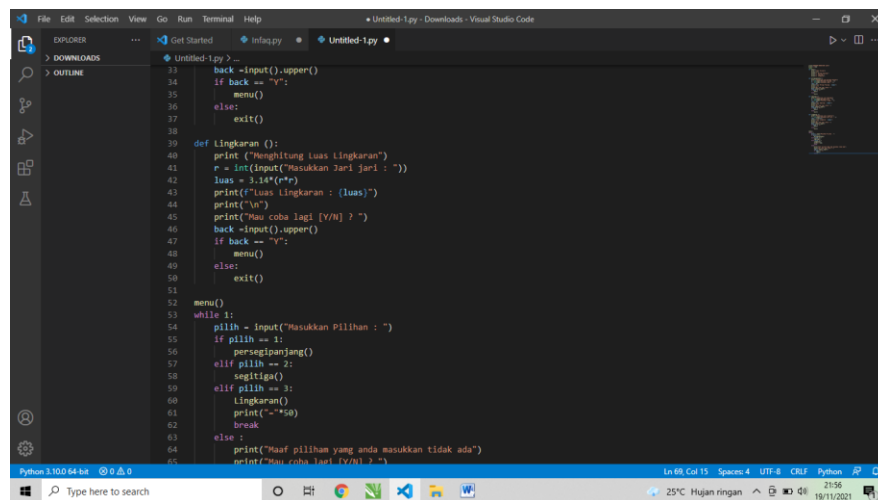
Nim: 20.01.013.048

Kelas: AI-B

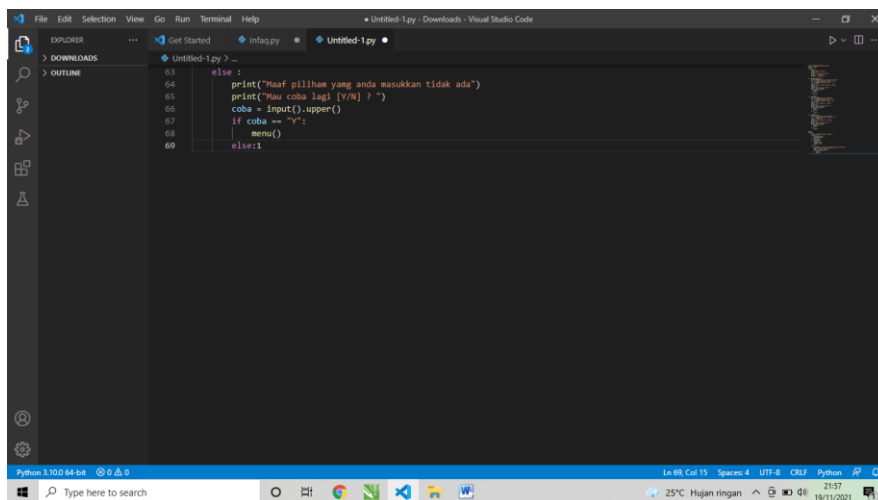
1.



```
1 print("PROGRAM MENGHITUNG LUAS")
2 print("-*-*")
3 menu()
4 def menu():
5     print("Menu Pilihan")
6     print("\n")
7     print("1. Persegi Panjang")
8     print("2. Segitiga")
9     print("3. Lingkaran")
10
11 def persegi panjang():
12     print("Menghitung Luas Persegi Panjang")
13     p = int(input("Masukkan Panjang : "))
14     l = int(input("Masukkan Lebar : "))
15     luas = p*l
16     print("Luas Persegi Panjang : (luas)")
17     print("\n")
18     print("Mau coba lagi [Y/N] ? ")
19     back = input().upper()
20     if back == "y":
21         menu()
22     else:
23         exit()
24
25 def segitiga():
26     print("Menghitung Luas Segitiga")
27     a = int(input("Masukkan Alas : "))
28     t = int(input("Masukkan Tinggi : "))
29     luas = a*t
30     print("Luas Segitiga : (luas)")
31     print("\n")
32     print("Mau coba lagi [Y/N] ? ")
33     back = input().upper()
```



```
34     back = input().upper()
35     if back == "y":
36         menu()
37     else:
38         exit()
39
40 def lingkaran():
41     print("Menghitung Luas lingkaran")
42     r = int(input("Masukkan Jari Jari : "))
43     luas = 3.14*(r**2)
44     print("Luas Lingkaran : (luas)")
45     print("\n")
46     print("Mau coba lagi [Y/N] ? ")
47     back = input().upper()
48     if back == "y":
49         menu()
50     else:
51         exit()
52
53 menu()
54 while 1:
55     pilih = Input("Masukkan Pilihan : ")
56     if pilih == 1:
57         persegi panjang()
58     elif pilih == 2:
59         segitiga()
60     elif pilih == 3:
61         lingkaran()
62     else:
63         print("Maaf pilihan yang anda masukkan tidak ada")
64         print("Mau coba lagi [Y/N] ? ")
65         back = input().upper()
```



```
66     back = input().upper()
67     if back == "y":
68         menu()
69     else:
70         print("Maaf pilihan yang anda masukkan tidak ada")
71         print("Mau coba lagi [Y/N] ? ")
72         back = input().upper()
73         if back == "y":
74             menu()
75         else:
76             exit()
```

Outputnya:

```
PS C:\Users\ACER\Downloads> & C:\Users\ACER\AppData\Local\Programs\Python\Python310\python.exe c:/Users/ACER/Downloads/Untitled-1.py
PROGRAM MENGHITUNG LUAS
Menu Pilihan

1. Persegi Panjang
2. Segitiga
3. Lingkaran
Masukkan Pilihan : 1
Maaf pilihan yang anda masukkan tidak ada
Mau coba lagi [Y/N] ?
y
Menu Pilihan

1. Persegi Panjang
2. Segitiga
3. Lingkaran
Masukkan Pilihan : 2
Maaf pilihan yang anda masukkan tidak ada
Mau coba lagi [Y/N] ?
y
Menu Pilihan

1. Persegi Panjang
2. Segitiga
3. Lingkaran
Masukkan Pilihan : 3
Maaf pilihan yang anda masukkan tidak ada
Mau coba lagi [Y/N] ?
|
```

2.

```
1 print("Menghitung Luas Persegi Panjang")
2 p = int(input("Masukkan Panjang : "))
3 l = int(input("Masukkan Lebar : "))
4 luas = p*l
5 print(f"Luas Persegi Panjang : {luas}")
6
7 print("Menghitung Luas Segitiga")
8 a = int(input("Masukkan Alas : "))
9 t = int(input("Masukkan Tinggi : "))
10 luas = a*t
11 print(f"Luas Segitiga : {luas}")
12
13 print("Menghitung Luas Lingkaran")
14 r = int(input("Masukkan Jari jari : "))
15 luas = 3.14*(r*r)
16 print(f"Luas Lingkaran : {luas}")

PS C:\Users\ACER\Downloads> & C:\Users\ACER\AppData\Local\Programs\Python\Python310\python.exe c:/Users/ACER/Downloads/Untitled-1.py
Menghitung Luas Persegi Panjang
Masukkan Panjang : 8
Masukkan Lebar : 16
Luas Persegi Panjang : 128
Menghitung Luas Segitiga
Masukkan Alas : 19
Masukkan Tinggi : 112
Luas Segitiga : 2128
Menghitung Luas Lingkaran
Masukkan Jari jari : 7
Luas Lingkaran : 153.86
PS C:\Users\ACER\Downloads>
```

3.

The screenshot shows the Visual Studio Code interface with a Python file named 'Untitled-1.py' open. The code defines a function `luassgt` that calculates the area of a triangle given its base (`alas`) and height (`tinggi`). The function uses the formula $luas = 0.5 * alas * tinggi$. The script prompts the user to input the base and height, and then prints the calculated area.

```

1 def luassgt(alas, tinggi):
2     luas = 0.5*alas*tinggi
3     print(f"Luas Segitiga adalah {luas}")
4
5 alas = int(input("Masukkan Nilai Alas = "))
6 tinggi = int(input("Masukkan Nilai Tinggi = "))
7
8 luassgt(alas,tinggi)

```

The terminal output shows the execution of the script:

```

PS C:\Users\ACER\Downloads> & C:\Users\ACER\AppData\Local\Programs\Python\Python310\python.exe c:/Users/ACER/Downloads/Untitled-1.py
Masukkan Nilai Alas = 17
Masukkan Nilai Tinggi = 22
Luas Segitiga adalah 187.0
PS C:\Users\ACER\Downloads>

```

4.

The screenshot shows the Visual Studio Code interface with a Python file named 'Untitled-1.py' open. The code prompts the user to input the number of data points (`N`), then loops to collect `N` data points into a list `data`. It then finds the maximum value in the list and prints it.

```

1 N = int(input("Banyak Data = "))
2
3 data = []
4 for i in range(0, N):
5     nilai = int(input("Masukkan data ke-%d: " % (i+1)))
6     data.append(nilai)
7
8 max_number = max(data)
9
10 print(f"Jadi angka Terbesar dari semua bilangan adalah {max_number}")

```

The terminal output shows the execution of the script:

```

Windows PowerShell
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PS C:\Users\ACER\Downloads> & C:\Users\ACER\AppData\Local\Programs\Python\Python310\python.exe c:/Users/ACER/Downloads/Untitled-1.py
Banyak Data = 4
Masukkan data ke-1: 4
Masukkan data ke-2: 7
Masukkan data ke-3: 9
Masukkan data ke-4: 5
Jadi angka Terbesar dari semua bilangan adalah 9
PS C:\Users\ACER\Downloads> & C:\Users\ACER\AppData\Local\Programs\Python\Python310\python.exe c:/Users/ACER/Downloads/Untitled-1.py
Banyak Data =

```

5.

6.

```

1 def faktorial(x):
2     hasil = 1
3     for i in range(2, x + 1):
4         hasil *= i
5     return hasil
6 x = int(input("Masukkan Faktorial : "))
7 print (faktorial(x))

```

```

Windows PowerShell
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PS C:\Users\ACER\Downloads> & C:/Users/ACER/AppData/Local/Programs/Python/Python310/python.exe c:/Users/ACER/Downloads/Untitled-1.py
Masukkan Faktorial : 4
24
PS C:\Users\ACER\Downloads>

```

7.

```

1 def cetak_matriks(matriks):
2     for row in matriks:
3         print(row)
4
5 def p_jg_matriks(matriks):
6     return len(matriks[0])
7
8 def lbr_matriks(matriks):
9     return len(matriks)
10
11 def jumlahkan_matriks(mat_a, mat_b):
12     temp_row = []
13     temp_mat = []
14
15     for i in range(0, lbr_matriks(mat_a)):
16         for j in range(0, p_jg_matriks(mat_a)):
17             temp_row.append(mat_a[i][j] + mat_b[i][j])
18             temp_mat.append(temp_row)
19         temp_row = []
20     return temp_mat
21
22 list_a = [[1, 2, 3, 5], [1, 2, 3, 5], [1, 2, 3, 5]]
23 list_b = [[1, 1, 1, 1], [1, 1, 1, 1], [1, 1, 1, 1]]
24
25 print("list_a : ")
26 cetak_matriks(list_a)
27
28 print("\nlist_b : ")
29 cetak_matriks(list_b)
30
31 print("\nhasil penjumlahan :")
32 hasil = jumlahkan_matriks(list_a, list_b)
33 cetak_matriks(hasil)

```

outputnya:

```

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PS C:\Users\ACER\Downloads> & C:/Users/ACER/AppData/Local/Programs/Python/Python310/python.exe c:/Users/ACER/Downloads/Untitled-1.py
list_a :
[1, 2, 3, 5]
[1, 2, 3, 5]
[1, 2, 3, 5]

list_b :
[1, 1, 1, 1]
[1, 1, 1, 1]
[1, 1, 1, 1]

hasil penjumlahan :
[2, 3, 4, 6]
[2, 3, 4, 6]
[2, 3, 4, 6]
PS C:\Users\ACER\Downloads>

```

8.

The screenshot shows the Visual Studio Code interface with a file named 'Untitled-1.py' open. The code is a Python script that solves a quadratic equation $ax^2 + bx + c = 0$. It prompts the user for values of a, b, and c, calculates the discriminant (det), and prints the roots (x1 and x2) if they are real, or a message 'Akar Imaginer.' if they are imaginary.

```

1 import math
2
3 print("Persamaan: ax^2 + bx + c = 0")
4 a = float(input("a = "))
5 b = float(input("b = "))
6 c = float(input("c = "))
7 print("-----")
8 det = b * b - 4 * a * c
9 if (det < 0) :
10     print("Akar Imaginer.")
11 else :
12     x1 = (b + math.sqrt(det))/(2 * a)
13     x2 = (b - math.sqrt(det))/(2 * a)
14     print("x1 =", x1)
15     print("x2 =", x2)

```

The terminal window shows the execution of the script. The user has entered a=3, b=4, and c=5. The output shows the discriminant calculation and the roots x1 and x2.

```

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PS C:\Users\VACER\Downloads> & C:/Users/ACER/AppData/Local/Programs/Python/Python310/python.exe c:/Users/ACER/Downloads/Untitled-1.py
Persamaan: ax^2 + bx + c = 0
a = 3
b = 4
c = 5
-----
Akar Imaginer.
PS C:\Users\VACER\Downloads>

```

9.

The screenshot shows the Visual Studio Code interface with a file named 'Untitled-1.py' open. The code is a Python script that calculates the sum of an arithmetic series (deret) using the formula $sn = n / 2 * ((2 * a) + (n - 1) * b)$. It prompts the user for values of a, b, and n, and prints the result (hasil).

```

1 def deret(a,b,n):
2     sn = n / 2 * ((2 * a) + (n - 1) * b)
3     return sn
4
5 hasil = deret(1,2,10)
6 print(hasil)

```

The terminal window shows the execution of the script. The user has entered a=1, b=2, and n=10. The output shows the result of the calculation, which is 100.0.

```

Windows PowerShell
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PS C:\Users\VACER\Downloads> & C:/Users/ACER/AppData/Local/Programs/Python/Python310/python.exe c:/Users/ACER/Downloads/Untitled-1.py
100.0
PS C:\Users\VACER\Downloads>

```