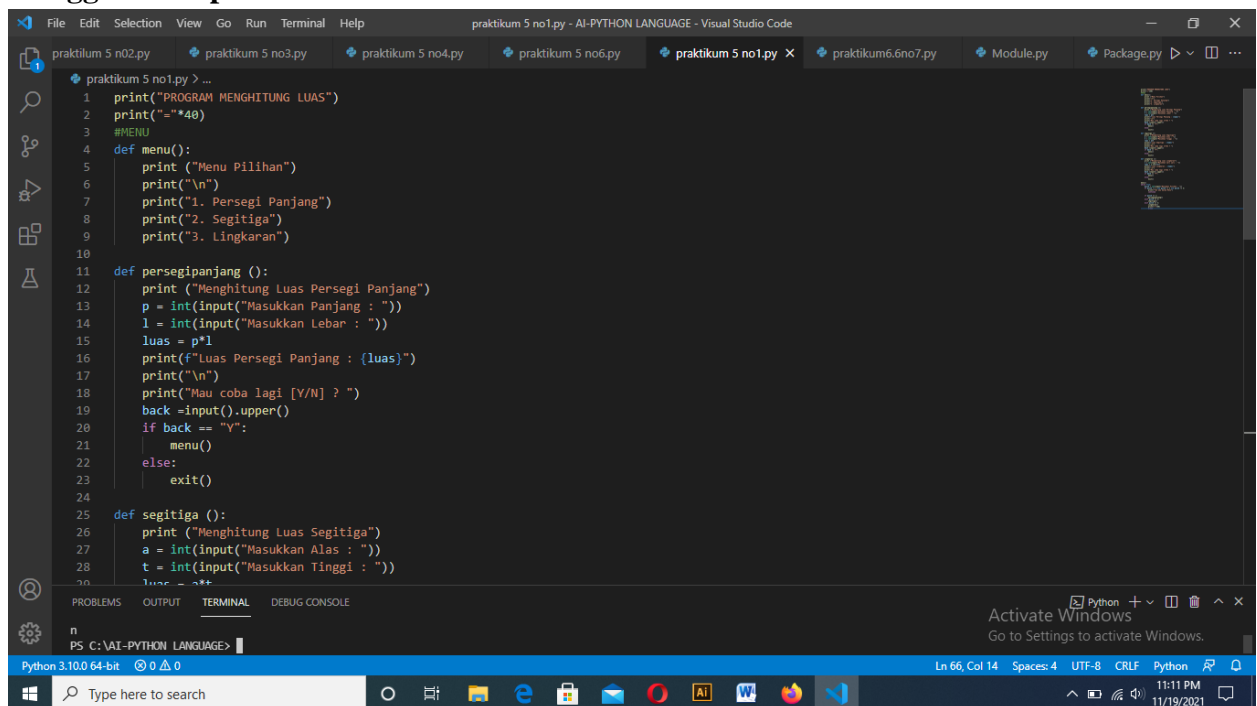


Nama : Sulastri  
NIM : 20.01.013.015  
MK : kecerdasan Buatan /B

## 5-Tugas-Praktikum

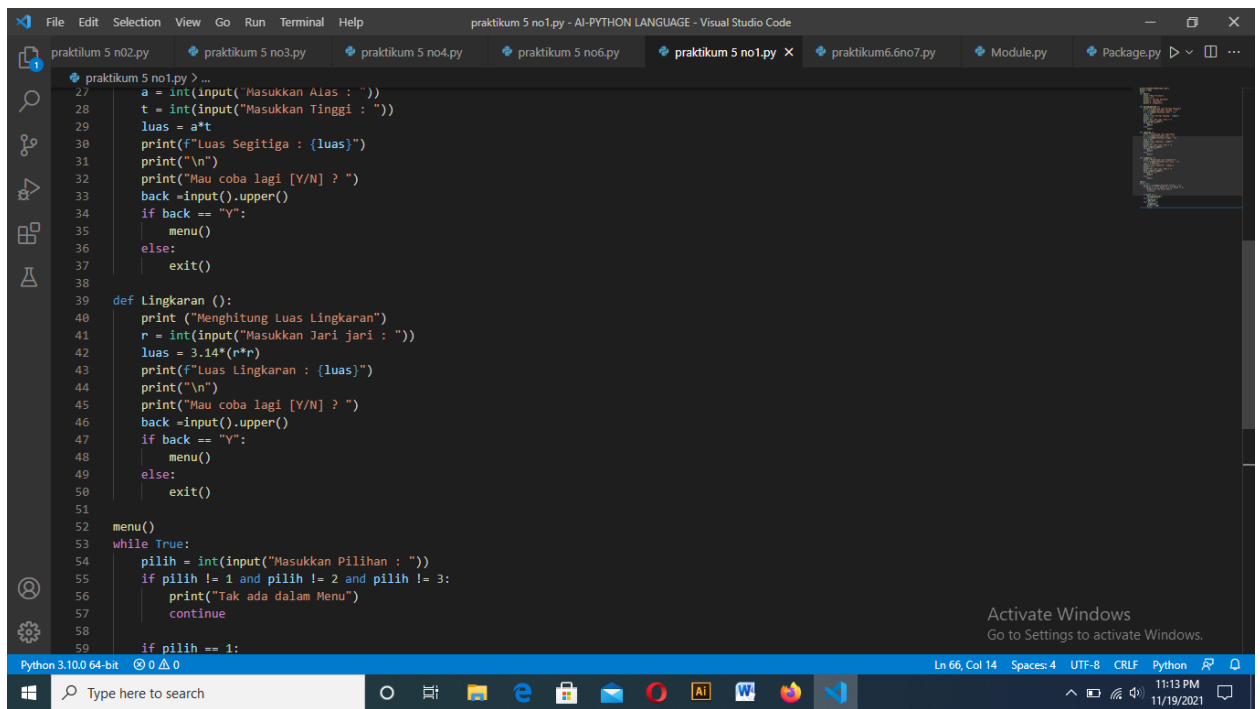
1. Program menghitung luas persegi panjang, segi tiga, dan lingkaran dengan menggunakan prosedur dalam satu file.



```
praktikum 5 no1.py - AI-PYTHON LANGUAGE - Visual Studio Code

praktikum 5 no2.py  praktikum 5 no3.py  praktikum 5 no4.py  praktikum 5 no6.py  praktikum 5 no1.py X  praktikum6.6no7.py  Module.py  Package.py  ▾  □  ...

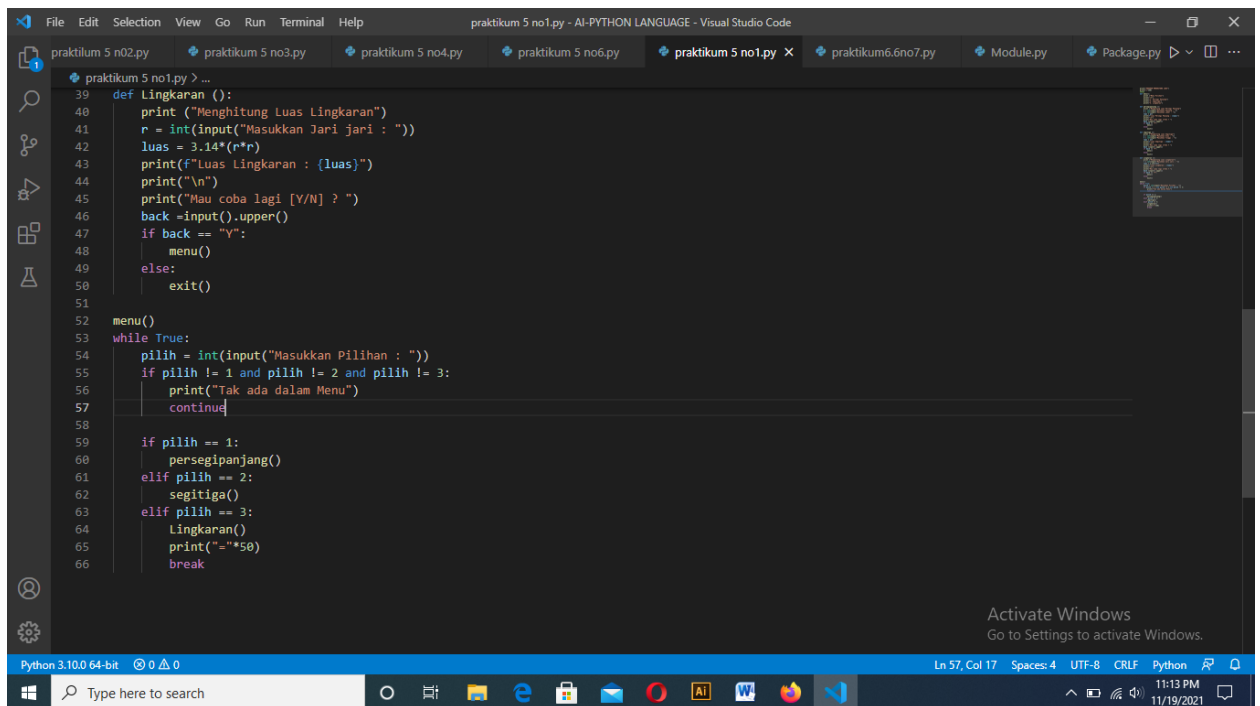
praktikum 5 no1.py > ...
1  print("PROGRAM MENGHITUNG LUAS")
2  print("="*40)
3  #MENU
4  def menu():
5      print ("Menu Pilihan")
6      print ("\n")
7      print ("1. Persegi Panjang")
8      print ("2. Segitiga")
9      print ("3. Lingkaran")
10
11 def persegi panjang ():
12     print ("Menghitung Luas Persegi Panjang")
13     p = int(input("Masukkan Panjang : "))
14     l = int(input("Masukkan Lebar : "))
15     luas = p*l
16     print(f"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 = 0.5 * a * t
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```



The screenshot shows the Visual Studio Code editor with a Python file named 'praktikum 5 no1.py'. The code defines two functions: 'Lingkaran()' for calculating the area of a circle and a 'menu()' function that uses a 'while True' loop to present a menu of options. The menu options are 1 (calculate triangle area), 2 (calculate circle area), and 3 (exit). The code is as follows:

```
27 a = int(input("Masukkan Alias : "))
28 t = int(input("Masukkan Tinggi : "))
29 luas = a*t
30 print(f"Luas Segitiga : {luas}")
31 print("\n")
32 print("Mau coba lagi [Y/N] ? ")
33 back = input().upper()
34 if back == "Y":
35     menu()
36 else:
37     exit()
38
39 def Lingkaran():
40     print("Menghitung Luas Lingkaran")
41     r = int(input("Masukkan Jari jari : "))
42     luas = 3.14*(r*r)
43     print(f"Luas Lingkaran : {luas}")
44     print("\n")
45     print("Mau coba lagi [Y/N] ? ")
46     back = input().upper()
47     if back == "Y":
48         menu()
49     else:
50         exit()
51
52 menu()
53 while True:
54     pilih = int(input("Masukkan Pilihan : "))
55     if pilih != 1 and pilih != 2 and pilih != 3:
56         print("Tak ada dalam Menu")
57         continue
58
59     if pilih == 1:
```

The status bar at the bottom indicates 'Python 3.10.0 64-bit', 'Ln 66, Col 14', 'Spaces: 4', 'UTF-8', 'CRLF', and 'Python'. The Windows taskbar is visible at the bottom with the search bar and various application icons.

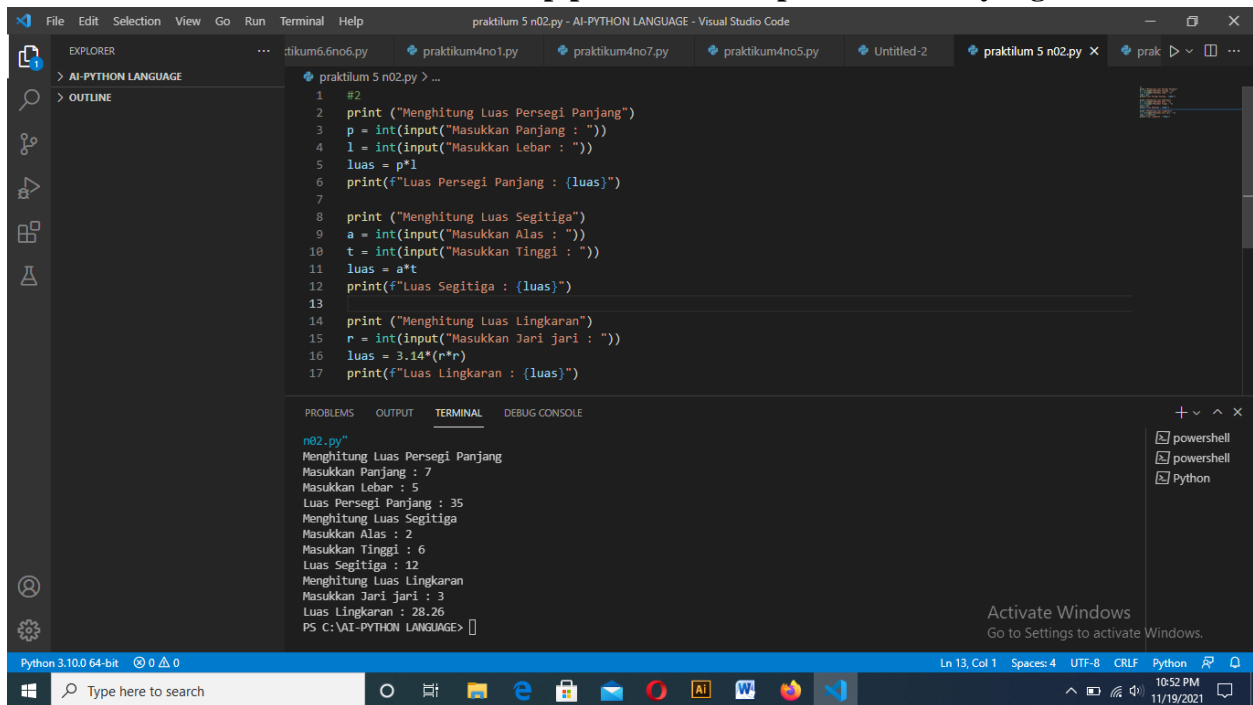


This screenshot shows the continuation of the Python script from the previous image. The 'menu()' function continues with the logic for handling the user's choice. The code is as follows:

```
60     if pilih == 1:
61         persegipanjang()
62     elif pilih == 2:
63         segitiga()
64     elif pilih == 3:
65         Lingkaran()
66         print("\n"*50)
67         break
```

The status bar at the bottom indicates 'Python 3.10.0 64-bit', 'Ln 57, Col 17', 'Spaces: 4', 'UTF-8', 'CRLF', and 'Python'. The Windows taskbar is visible at the bottom with the search bar and various application icons.

## 2. Modifikasi soal nomor 1 dimana setiap prosedur disimpan dalam file yang berbeda



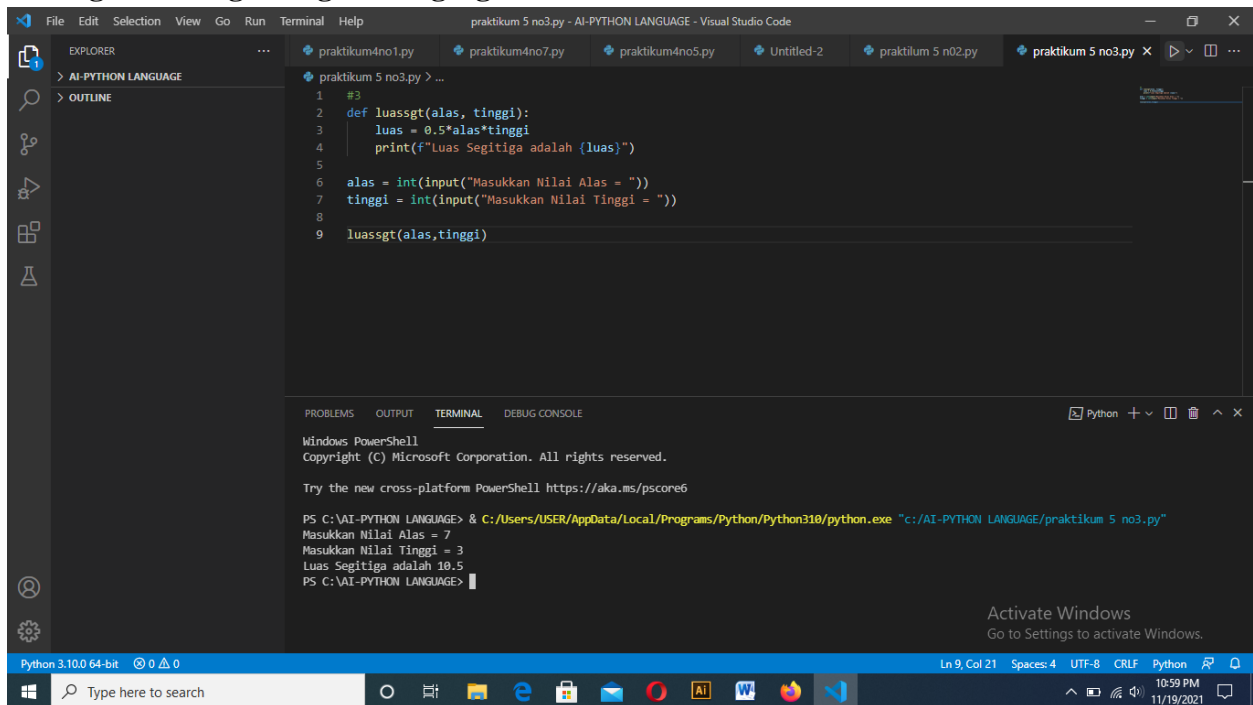
```
praktikum 5 n02.py > ...
1 #2
2 print ("Menghitung Luas Persegi Panjang")
3 p = int(input("Masukkan Panjang : "))
4 l = int(input("Masukkan Lebar : "))
5 luas = p*l
6 print(f"Luas Persegi Panjang : {luas}")
7
8 print ("Menghitung Luas Segitiga")
9 a = int(input("Masukkan Alas : "))
10 t = int(input("Masukkan Tinggi : "))
11 luas = a*t
12 print(f"Luas Segitiga : {luas}")
13
14 print ("Menghitung Luas Lingkaran")
15 r = int(input("Masukkan Jari jari : "))
16 luas = 3.14*(r*r)
17 print(f"Luas Lingkaran : {luas}")
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

```
n02.py
Menghitung Luas Persegi Panjang
Masukkan Panjang : 7
Masukkan Lebar : 5
Luas Persegi Panjang : 35
Menghitung Luas Segitiga
Masukkan Alas : 2
Masukkan Tinggi : 6
Luas Segitiga : 12
Menghitung Luas Lingkaran
Masukkan Jari jari : 3
Luas Lingkaran : 28.26
PS C:\AI-PYTHON LANGUAGE>
```

Python 3.10.0 64-bit 0 0 0 Ln 13, Col 1 Spaces: 4 UTF-8 CRLF Python 10:52 PM 11/19/2021

## 3. Program menghitung luas segitiga



```
praktikum 5 no3.py > ...
1 #3
2 def luassgt(alas, tinggi):
3     luas = 0.5*alas*tinggi
4     print(f"Luas Segitiga adalah {luas}")
5
6 alas = int(input("Masukkan Nilai Alas = "))
7 tinggi = int(input("Masukkan Nilai Tinggi = "))
8
9 luassgt(alas,tinggi)
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

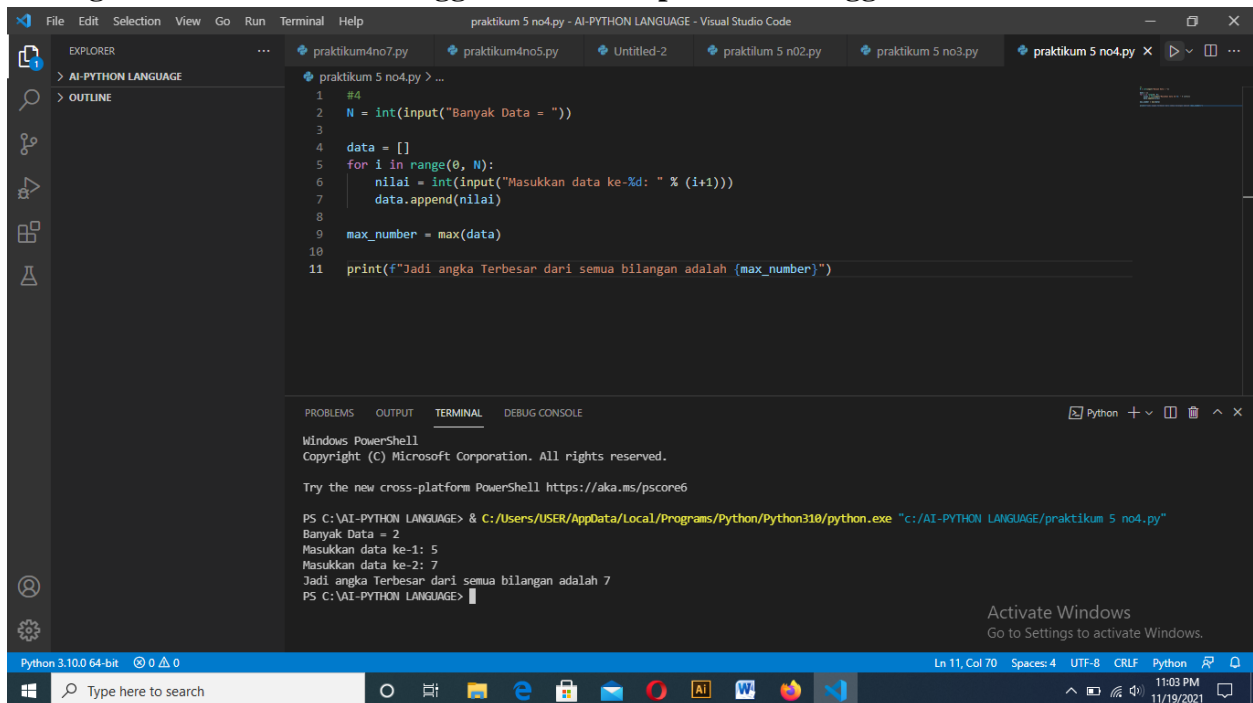
```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\AI-PYTHON LANGUAGE> & C:/Users/USER/AppData/Local/Programs/Python/Python310/python.exe "c:/AI-PYTHON LANGUAGE/praktikum 5 no3.py"
Masukkan Nilai Alas = 7
Masukkan Nilai Tinggi = 3
Luas Segitiga adalah 10.5
PS C:\AI-PYTHON LANGUAGE>
```

Python 3.10.0 64-bit 0 0 0 Ln 9, Col 21 Spaces: 4 UTF-8 CRLF Python 10:59 PM 11/19/2021

#### 4. Program mencari nilai tertinggi dari sekelompok data menggunakan list



The screenshot shows the Visual Studio Code interface with a Python file named 'praktikum 5 no4.py'. The code defines a list 'data' and uses a loop to append user input values. It then uses the 'max()' function to find the maximum value and prints it. The terminal shows the execution of the program, where the user enters 2 and 7, and the output is 'Jadi angka Terbesar dari semua bilangan adalah 7'.

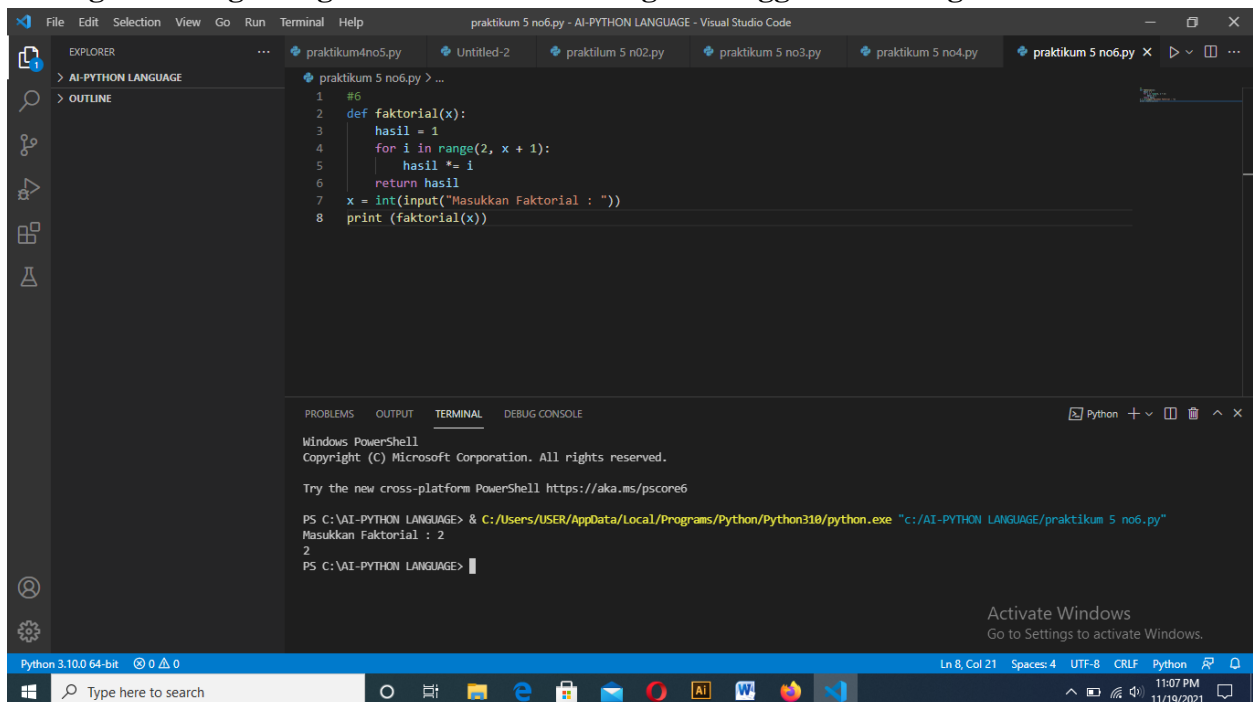
```
1 #4
2 N = int(input("Banyak Data = "))
3
4 data = []
5 for i in range(0, N):
6     nilai = int(input("Masukkan data ke-%d: " % (i+1)))
7     data.append(nilai)
8
9 max_number = max(data)
10
11 print(f"Jadi angka Terbesar dari semua bilangan adalah {max_number}")
```

Terminal Output:

```
PS C:\AI-PYTHON LANGUAGE> & C:/Users/USER/AppData/Local/Programs/Python/Python310/python.exe "c:/AI-PYTHON LANGUAGE/praktikum 5 no4.py"
Banyak Data = 2
Masukkan data ke-1: 5
Masukkan data ke-2: 7
Jadi angka Terbesar dari semua bilangan adalah 7
PS C:\AI-PYTHON LANGUAGE>
```

#### 5. Program menampilkan bilangan kelipatan dari sekelompok data menggunakan list

#### 6. Program menghitung faktorial sebuah bilangan menggunakan fungsi



The screenshot shows the Visual Studio Code interface with a Python file named 'praktikum 5 no6.py'. The code defines a function 'faktorial(x)' that calculates the factorial of a number using a loop. It then takes user input and prints the result. The terminal shows the execution of the program, where the user enters 2, and the output is '2'.

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

Terminal Output:

```
PS C:\AI-PYTHON LANGUAGE> & C:/Users/USER/AppData/Local/Programs/Python/Python310/python.exe "c:/AI-PYTHON LANGUAGE/praktikum 5 no6.py"
Masukkan Faktorial : 2
2
PS C:\AI-PYTHON LANGUAGE>
```

**7. Program untuk menjumlahkan data antara dua buah list menggunakan fungsi**