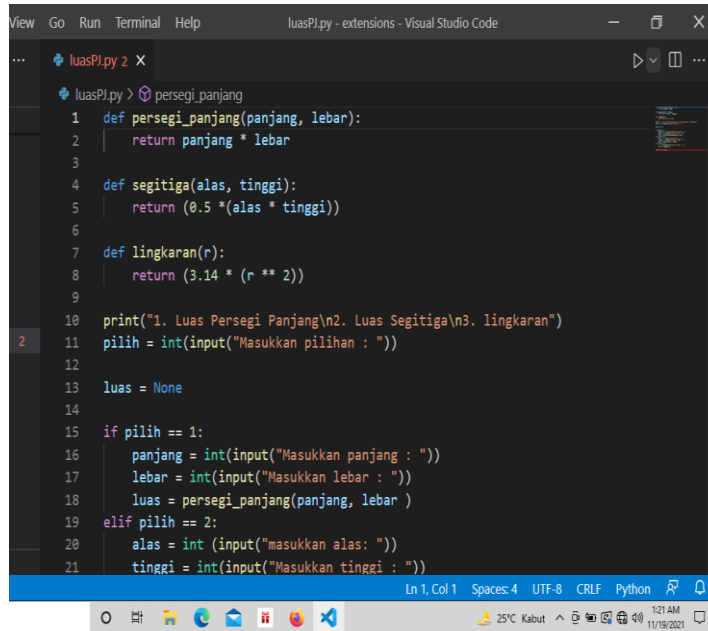


PRAK PYTHON 5

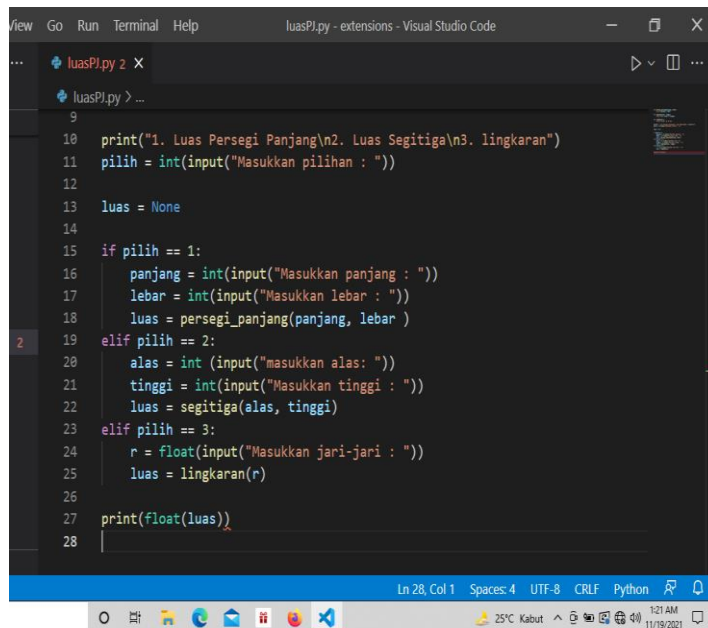
Nama : Armanita Aning

Nim. : 20.01.013.002

1. Program menghitung luas persegi panjang, segitiga, dan lingkaran dengan menggunakan prosedur.



```
View Go Run Terminal Help luasPl.py - extensions - Visual Studio Code
...
luasPl.py 2 X
luasPl.py > persegi_panjang
1 def persegi_panjang(panjang, lebar):
2     return panjang * lebar
3
4 def segitiga(alas, tinggi):
5     return (0.5 * (alas * tinggi))
6
7 def lingkaran(r):
8     return (3.14 * (r ** 2))
9
10 print("1. Luas Persegi Panjang\n2. Luas Segitiga\n3. lingkaran")
11 pilih = int(input("Masukkan pilihan : "))
12
13 luas = None
14
15 if pilih == 1:
16     panjang = int(input("Masukkan panjang : "))
17     lebar = int(input("Masukkan lebar : "))
18     luas = persegi_panjang(panjang, lebar)
19 elif pilih == 2:
20     alas = int(input("Masukkan alas : "))
21     tinggi = int(input("Masukkan tinggi : "))
```



```
View Go Run Terminal Help luasPl.py - extensions - Visual Studio Code
...
luasPl.py 2 X
luasPl.py > ...
9
10 print("1. Luas Persegi Panjang\n2. Luas Segitiga\n3. lingkaran")
11 pilih = int(input("Masukkan pilihan : "))
12
13 luas = None
14
15 if pilih == 1:
16     panjang = int(input("Masukkan panjang : "))
17     lebar = int(input("Masukkan lebar : "))
18     luas = persegi_panjang(panjang, lebar)
19 elif pilih == 2:
20     alas = int(input("Masukkan alas : "))
21     tinggi = int(input("Masukkan tinggi : "))
22     luas = segitiga(alas, tinggi)
23 elif pilih == 3:
24     r = float(input("Masukkan jari-jari : "))
25     luas = lingkaran(r)
26
27 print(float(luas))
28
```

The screenshot shows the Visual Studio Code interface with a terminal window open at the bottom. The title bar of the terminal reads "luasPJ.py - extensions - Visual Studio Code". The terminal has tabs for OUTPUT, TERMINAL (which is active), and DEBUG CONSOLE. On the right side of the terminal, there are icons for Python, a plus sign, and trash/clear icons. The terminal content shows a Windows PowerShell prompt where the user runs a command to execute a Python script. The script's output lists three options: 1. Luas Persegi Panjang, 2. Luas Segitiga, and 3. lingkaran. It then prompts the user to enter choices for length, width, and area. The user has entered '2' for the second option. The status bar at the bottom indicates the current file is at line 28, column 1, with 4 spaces, UTF-8 encoding, CR/LF line endings, and the Python interpreter selected. The system tray at the very bottom shows the date and time as 1:22 AM on 11/19/2021.

```
view Go Run Terminal Help luasPJ.py - extensions - Visual Studio Code
```

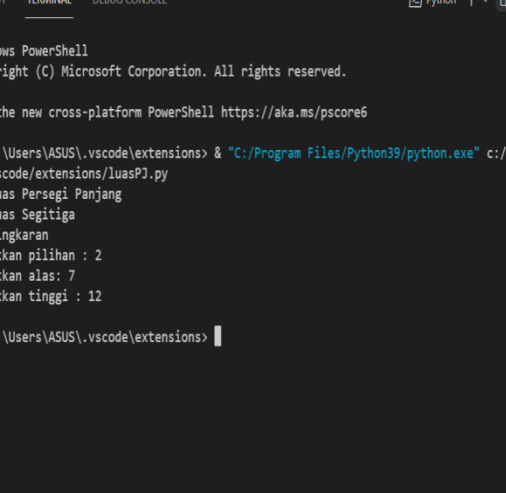
OUTPUT TERMINAL DEBUG CONSOLE Python + ▢ ▣ ▤ ▥ ▦ ▧ ▨ ▩

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

```
PS C:\Users\ASUS\.vscode\extensions> &"C:/Program Files/Python39/python.exe" c:/Users/ASU  
S/.vscode/extensions/luasPJ.py  
1. Luas Persegi Panjang  
2. Luas Segitiga  
3. lingkaran  
Masukkan pilihan : 1  
Masukkan panjang : 6  
Masukkan lebar : 10  
60.0  
PS C:\Users\ASUS\.vscode\extensions>
```

Ln 28, Col 1 Spaces: 4 UTF-8 CR/LF Python 1:22 AM 11/19/2021



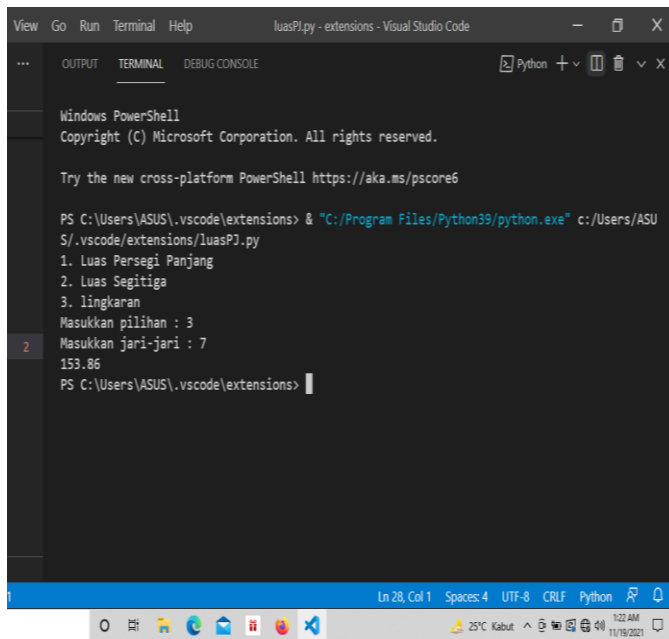
```
Go Run Terminal Help luasPJ.py - extensions - Visual Studio Code

OUTPUT TERMINAL DEBUG CONSOLE

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

PS C:\Users\ASU\vscode\extensions> & "C:/Program Files/Python39/python.exe" c:/Users/ASU
S/.vscode/extensions/luasPJ.py
1. Luas Persegi Panjang
2. Luas Segitiga
3. lingkaran
Masukkan pilihan : 2
masukkan alas: 7
Masukkan tinggi : 12
42.0
PS C:\Users\ASU\vscode\extensions>
```

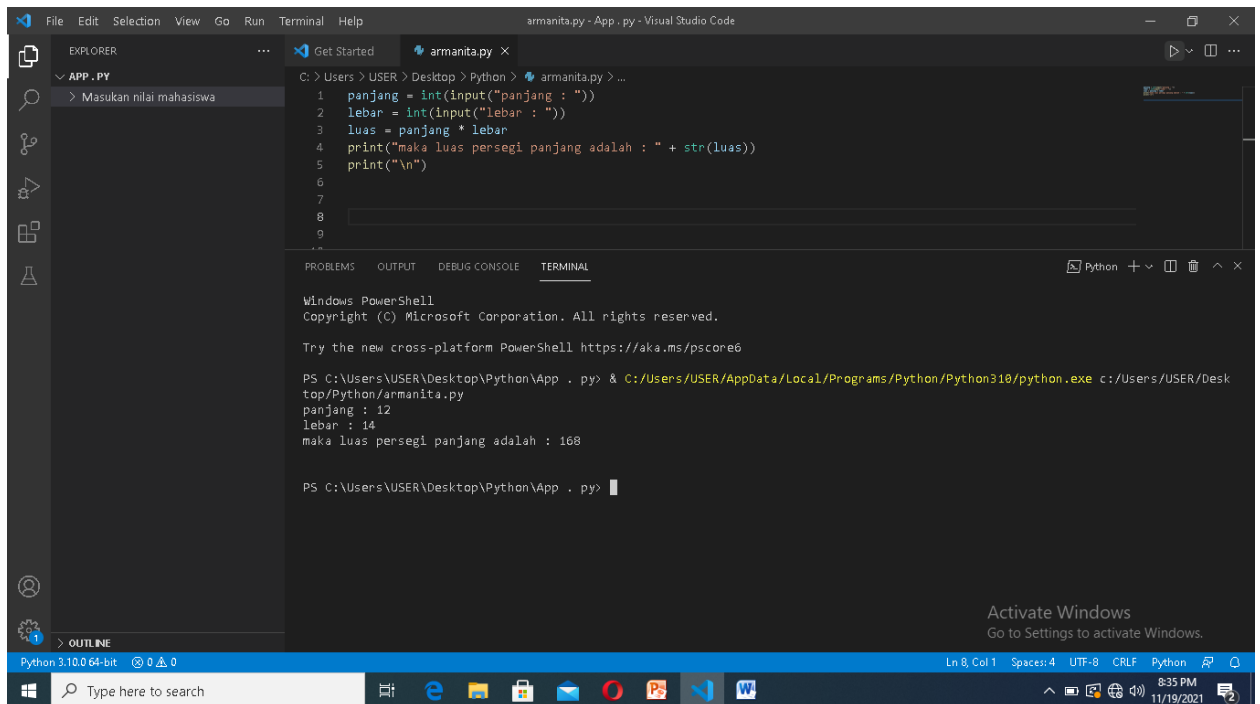


```
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\ASUS\.vscode\extensions> & "C:/Program Files/Python39/python.exe" c:/Users/ASUS/.vscode/extensions/luasPJ.py
1. Luas Persegi Panjang
2. Luas Segitiga
3. lingkaran
Masukkan pilihan : 3
2
Masukkan jari-jari : 7
153.86
PS C:\Users\ASUS\.vscode\extensions>
```

2. Prosedur disimpan dalam file yang berbeda.



```
File Edit Selection View Go Run Terminal Help
armanita.py - App .py - Visual Studio Code

EXPLORER
APP . PY
Masukan nilai mahasiswa

armanita.py x
C:\Users\USER\Desktop> Python> armanita.py
1 panjang = int(input("panjang : "))
2 lebar = int(input("lebar : "))
3 luas = panjang * lebar
4 print("maka luas persegi panjang adalah : " + str(luas))
5 print("\n")
6
7
8
9
10

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

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

PS C:\Users\USER\Desktop\Python> . py & C:/Users/USER/AppData/Local/Programs/Python/Python310/python.exe c:/Users/USER/Desktop/Python/armanita.py
panjang : 12
lebar : 14
maka luas persegi panjang adalah : 168

PS C:\Users\USER\Desktop\Python> . py>
```

The screenshot shows the Visual Studio Code interface. The Explorer pane on the left shows a file named 'APP.PY' with the content 'Masukan nilai mahasiswa'. The main editor displays a Python script named 'armanita.py' with the following code:

```
1 alas = int(input("alas : "))
2 tinggi = int(input("tinggi : "))
3 luas = float(1) / 2 * alas * tinggi
4 print("Maka luas segitiga adalah : " + str(luas))
5 print("\n")
6
7
8
9
```

The TERMINAL pane at the bottom shows the command prompt output:

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

PS C:\Users\USER\Desktop\Python> . py> & C:/Users/USER/AppData/Local/Programs/Python/Python310/python.exe c:/Users/USER/Desktop/Python/armanita.py
alas : 12
tinggi : 10
Maka luas segitiga adalah :60.0

PS C:\Users\USER\Desktop\Python> . py>
```

The status bar at the bottom indicates 'Python 3.10.0 64-bit' and 'Ln 5, Col 12'.

The screenshot shows the Visual Studio Code interface. The main editor displays a Python script named 'lingkaran.py' with the following code:

```
1 def lingkaran():
2     r=int(input("Masukkan Jari-jari : "))
3     phi=3.14
4     luas=phi*r*r
5     print(f"Maka Luas Lingkaran : {luas}")
6     lingkaran()
```

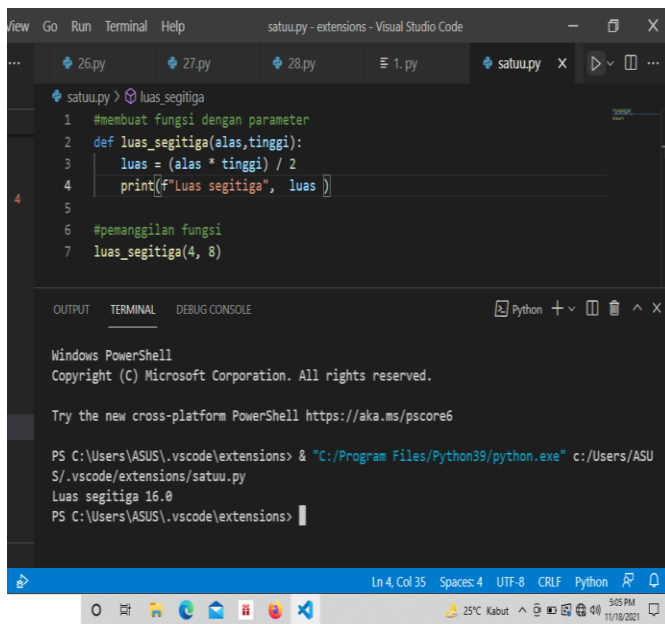
The TERMINAL pane at the bottom shows the command prompt output:

```
Windows PowerShell
Copyright (C) 2013 Microsoft Corporation. All rights reserved.

PS C:\Users\User\Documents\YUBI> & C:/Users/User/AppData/Local/Programs/Python/Python39/python.exe c:/Users/User/Documents/YUBI/c.py
Masukkan Jari-jari : 7
Maka Luas Lingkaran : 153.86

PS C:\Users\User\Documents\YUBI>
```

3. Program menghitung luas segitiga menggunakan fungsi.



The screenshot shows the Visual Studio Code editor with a file named `satuu.py` open. The code defines a function `luas_segitiga` that takes `alas` and `tinggi` as parameters, calculates the area using the formula $\text{luas} = (\text{alas} * \text{tinggi}) / 2$, and prints the result. The function is then called with `luas_segitiga(4, 8)`. Below the editor, the Windows PowerShell terminal shows the command `python c:/Users/ASU/S/.vscode/extensions/satuu.py` being executed, resulting in the output `Luas segitiga 16.0`.

```
view Go Run Terminal Help satuu.py - extensions - Visual Studio Code

... 26.py 27.py 28.py 1.py satuu.py x

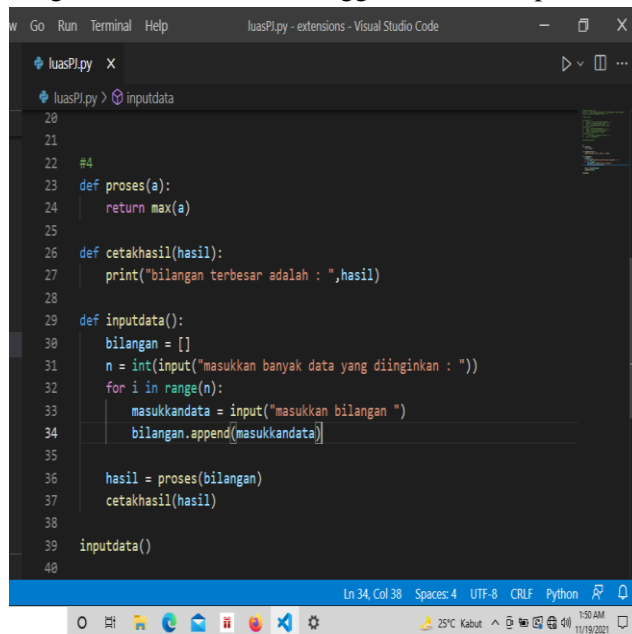
satuu.py > luas_segitiga
1 #membuat fungsi dengan parameter
2 def luas_segitiga(alas,tinggi):
3     luas = (alas * tinggi) / 2
4     print(f"Luas segitiga", luas )
5
6 #pemanggilan fungsi
7 luas_segitiga(4, 8)

OUTPUT TERMINAL DEBUG CONSOLE Python + - x
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\ASUS\.vscode\extensions> & "C:/Program Files/Python39/python.exe" c:/Users/ASU
S/.vscode/extensions/satuu.py
Luas segitiga 16.0
PS C:\Users\ASUS\.vscode\extensions>
```

4. Program mencari nilai tertinggi dari sekelompok data menggunakan list

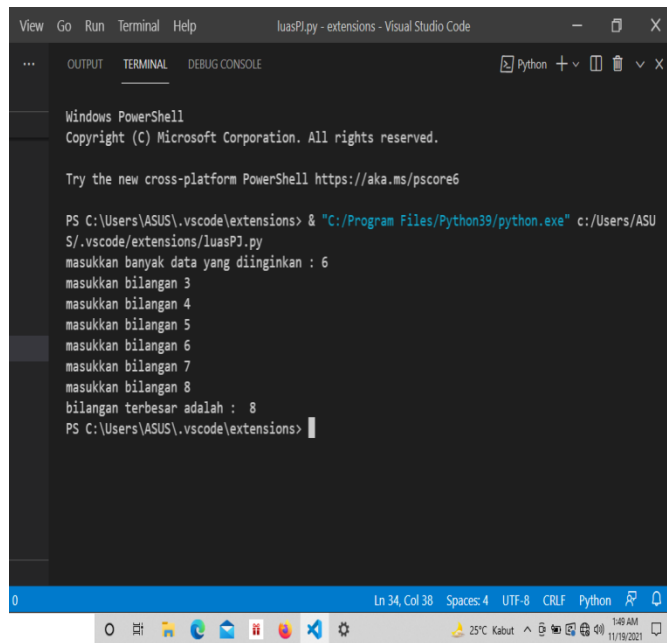


The screenshot shows the Visual Studio Code editor with a file named `luasPJ.py` open. The code defines three functions: `proses` which returns the maximum value of a list, `cetakhasil` which prints the maximum value, and `inputdata` which prompts the user for the number of data points, collects the data into a list, and then calls `proses` and `cetakhasil` to find and display the maximum value.

```
w Go Run Terminal Help luasPJ.py - extensions - Visual Studio Code

luasPJ.py x

luasPJ.py > inputdata
20
21
22 #4
23 def proses(a):
24     return max(a)
25
26 def cetakhasil(hasil):
27     print("bilangan terbesar adalah :",hasil)
28
29 def inputdata():
30     bilangan = []
31     n = int(input("masukkan banyak data yang diinginkan : "))
32     for i in range(n):
33         masukkandata = input("masukkan bilangan ")
34         bilangan.append(masukkandata)
35
36     hasil = proses(bilangan)
37     cetakhasil(hasil)
38
39 inputdata()
40
```

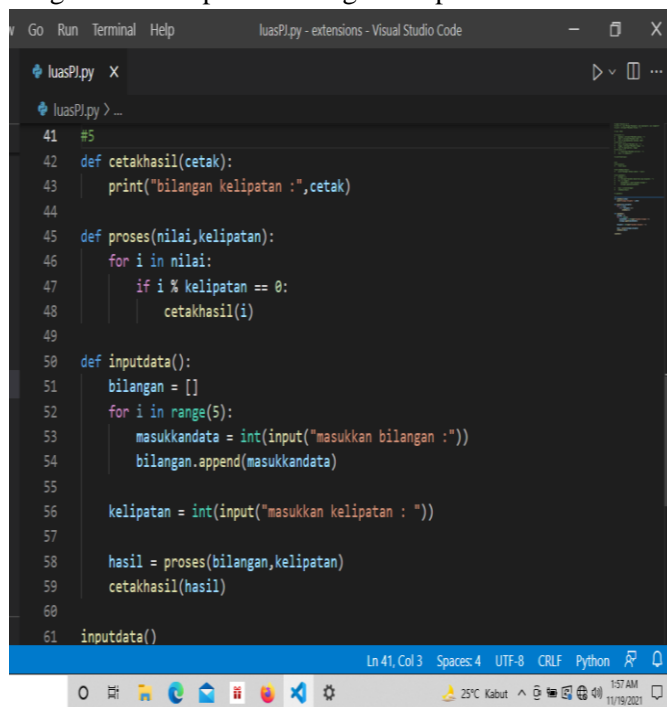


The screenshot shows a Windows PowerShell terminal window within the Visual Studio Code editor. The terminal title is "luasPI.py - extensions - Visual Studio Code". The prompt is "PS C:\Users\ASUS\.vscode\extensions>". The user has executed the command: `& "C:/Program Files/Python39/python.exe" c:/Users/ASUS/.vscode/extensions/luasPI.py`. The script's output is as follows:

```
masukkan banyak data yang diinginkan : 6
masukkan bilangan 3
masukkan bilangan 4
masukkan bilangan 5
masukkan bilangan 6
masukkan bilangan 7
masukkan bilangan 8
bilangan terbesar adalah : 8
PS C:\Users\ASUS\.vscode\extensions>
```

The status bar at the bottom indicates the file is at line 34, column 38, with 4 spaces, UTF-8 encoding, CRLF line endings, and the Python interpreter.

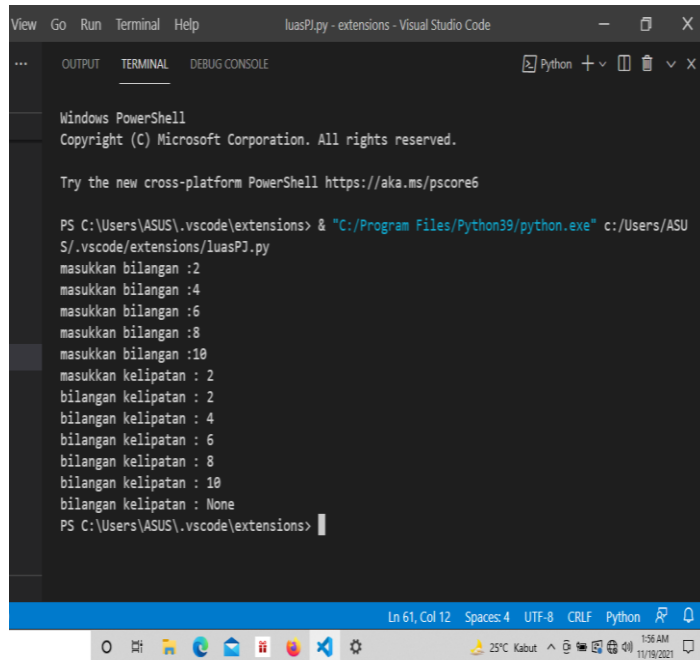
5. Program menampilkan bilangan kelipatan X



The screenshot shows the source code of the `luasPI.py` file in the Visual Studio Code editor. The code is as follows:

```
41 #5
42 def cetakhasil(cetak):
43     print("bilangan kelipatan :",cetak)
44
45 def proses(nilai,kelipatan):
46     for i in nilai:
47         if i % kelipatan == 0:
48             cetakhasil(i)
49
50 def inputdata():
51     bilangan = []
52     for i in range(5):
53         masukkandata = int(input("masukkan bilangan :"))
54         bilangan.append(masukkandata)
55
56     kelipatan = int(input("masukkan kelipatan : "))
57
58     hasil = proses(bilangan,kelipatan)
59     cetakhasil(hasil)
60
61 inputdata()
```

The status bar at the bottom indicates the file is at line 41, column 3, with 4 spaces, UTF-8 encoding, CRLF line endings, and the Python interpreter.



```
View Go Run Terminal Help luasPJ.py - extensions - Visual Studio Code

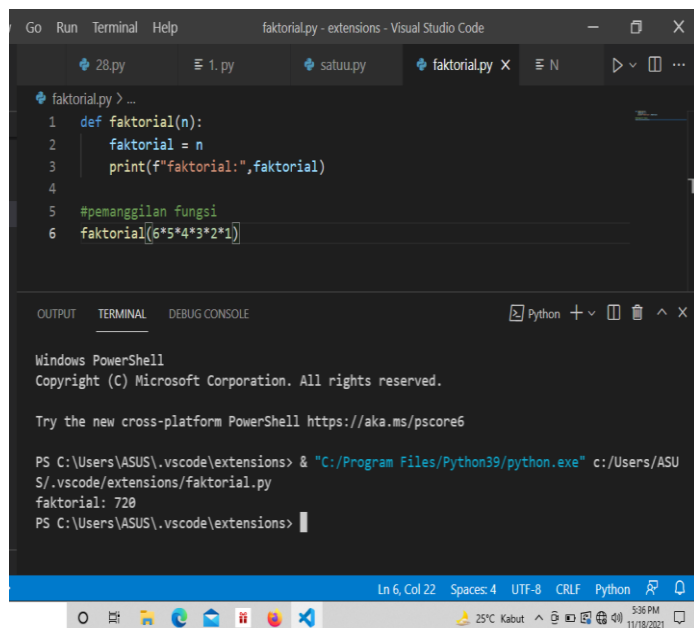
... OUTPUT TERMINAL DEBUG CONSOLE Python + - X

Windows PowerShell
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PS C:\Users\ASUS\.vscode\extensions> & "C:/Program Files/Python39/python.exe" c:/Users/ASUS/.vscode/extensions/luasPJ.py
masukkan bilangan :2
masukkan bilangan :4
masukkan bilangan :6
masukkan bilangan :8
masukkan bilangan :10
masukkan kelipatan : 2
bilangan kelipatan : 2
bilangan kelipatan : 4
bilangan kelipatan : 6
bilangan kelipatan : 8
bilangan kelipatan : 10
bilangan kelipatan : None
PS C:\Users\ASUS\.vscode\extensions>
```

6. Buatlah program menghitung faktorial sebuah bilangan



```
Go Run Terminal Help faktorial.py - extensions - Visual Studio Code

28.py 1.py satu.py faktorial.py N Python + - X

faktorial.py > ...
1 def faktorial(n):
2     faktorial = n
3     print(f"faktorial:",faktorial)
4
5 #pemanggilan fungsi
6 faktorial(6*5*4*3*2*1)

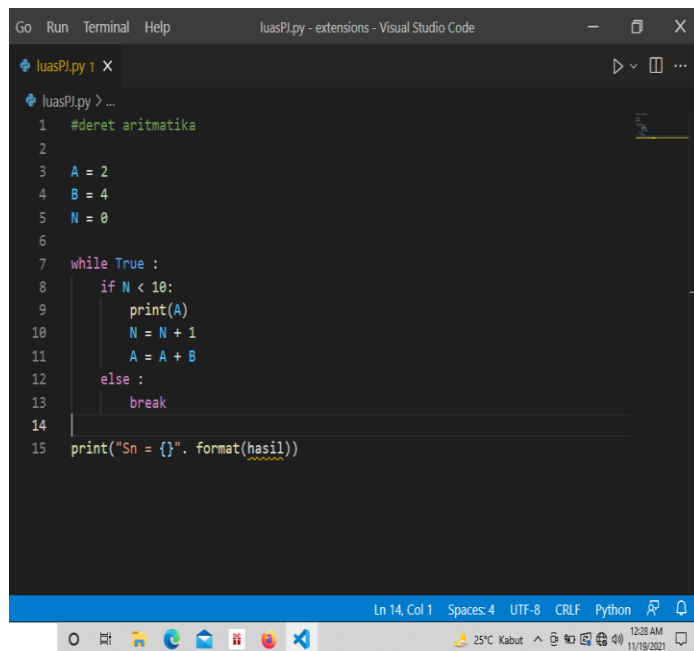
OUTPUT TERMINAL DEBUG CONSOLE Python + - X

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

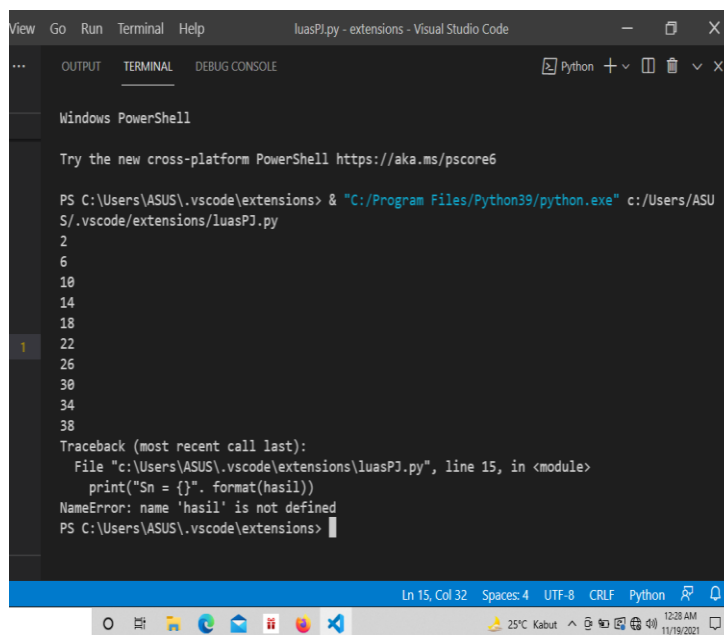
PS C:\Users\ASUS\.vscode\extensions> & "C:/Program Files/Python39/python.exe" c:/Users/ASUS/.vscode/extensions/faktorial.py
faktorial: 720
PS C:\Users\ASUS\.vscode\extensions>
```

8. Program menampilkan jumlah deret aritmatik.



```
luasPJ.py 1 X
luasPJ.py > ...
1  #deret aritmatika
2
3  A = 2
4  B = 4
5  N = 0
6
7  while True :
8      if N < 10:
9          print(A)
10         N = N + 1
11         A = A + B
12     else :
13         break
14
15 print("Sn = {}". format(hasil))
```

Ln 14, Col 1 Spaces: 4 UTF-8 CRLF Python



```
View Go Run Terminal Help luasPJ.py - extensions - Visual Studio Code
... OUTPUT TERMINAL DEBUG CONSOLE Python + - - X
Windows PowerShell
Try the new cross-platform PowerShell https://aka.ms/pscore6
PS C:\Users\ASUS\.vscode\extensions> & "C:/Program Files/Python39/python.exe" c:/Users/ASUS/.vscode/extensions/luasPJ.py
2
6
10
14
18
22
26
30
34
38
Traceback (most recent call last):
  File "c:\Users\ASUS\.vscode\extensions\luasPJ.py", line 15, in <module>
    print("Sn = {}". format(hasil))
NameError: name 'hasil' is not defined
PS C:\Users\ASUS\.vscode\extensions> |
```

Ln 15, Col 32 Spaces: 4 UTF-8 CRLF Python