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KELAS : ARTIFICIAL INTELLIGENCE – 3B

## TUGAS PRAKTIKUM V

- KUBUS
  - Rumus Luas :

The screenshot displays a Python program for calculating the surface area of a cube. The interface consists of three main panels:

- Console:** Shows the execution output. It prompts for "Masukkan R1 =" and "Masukkan R2 =", both with input "6". The final output is "Luas (L) =216".
- Flowchart:** A visual representation of the program logic. It starts with a "Main" node, followed by a process node "Real L, R1, R2". It then branches into two output nodes: "Output 'Masukkan R1 =' " and "Output 'Masukkan R2 =' ". Each output node is followed by an input node: "Input R1" and "Input R2". These lead to a process node "L = (6)\*R1\*R2" and finally an output node "Output 'Luas (L) ='&L", which ends at an "End" node.
- Source Code Viewer:** Displays the Python code used in the program:

```
0 print("Masukkan R1 = ")
1 r1 = float(input())
2 print("Masukkan R2 = ")
3 r2 = float(input())
4 l = 6 * r1 * r2
5 print("Luas (L) =" + str(l))
```

At the bottom, a status bar indicates "Program has finished running." and a system tray shows the date and time as 02/11/2021 22:06.

The screenshot shows the Visual Studio Code interface. The Explorer pane on the left shows a file named `guslinats.py`. The main editor displays the following Python code:

```

1 print("Masukkan R1 = ")
2 r1 = float(input())
3 print("Masukkan R2 = ")
4 r2 = float(input())
5 l = 6 * r1 * r2
6 print("Luas (L) =" + str(l))
7

```

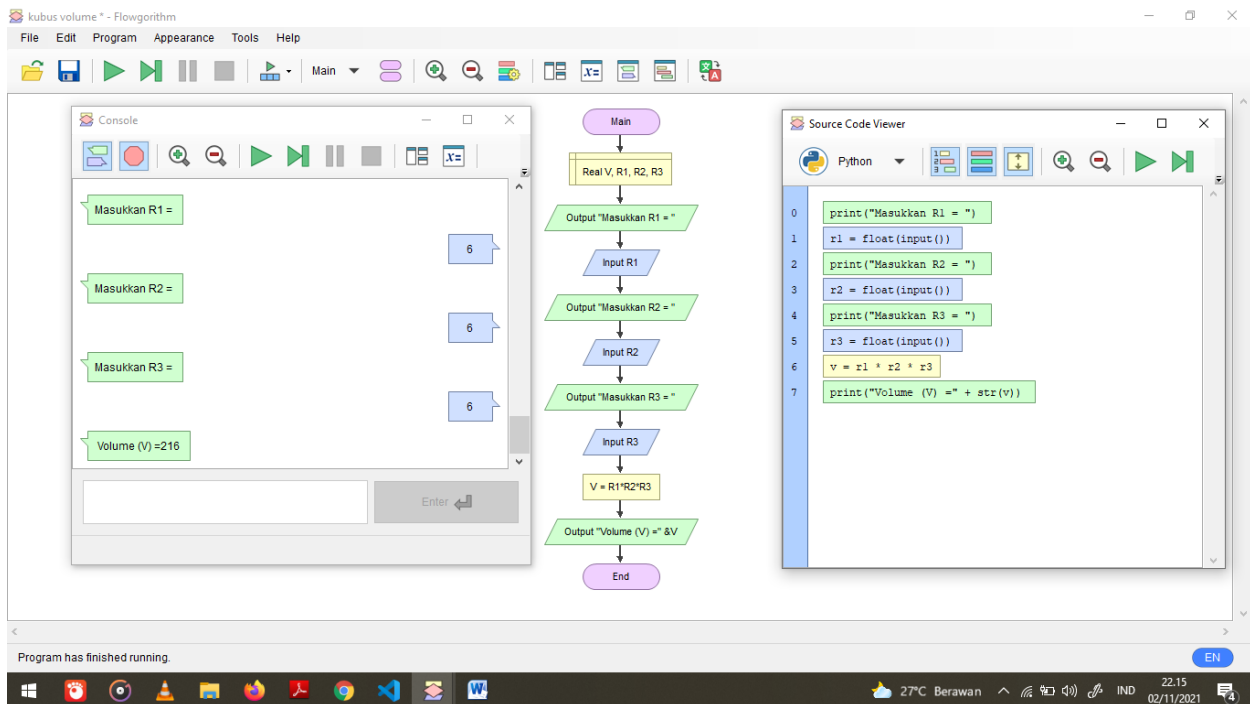
The TERMINAL pane at the bottom shows the execution of the script using Python 3.10.0. The output is as follows:

```

PS C:\Users\ACER> & C:\Users\ACER\AppData\Local\Programs\Python\Python310\python.exe c:/Users/ACER/guslinats.py
Masukkan R1 = 6
Masukkan R2 = 6
Luas (L) =216.0
PS C:\Users\ACER>

```

- Rumus Volume (ISI) :



The screenshot shows the Visual Studio Code interface. The Explorer pane on the left shows a file named `guslinats.py`. The main editor displays the following Python code:

```

1 print("Masukkan R1 = ")
2 r1 = float(input())
3 print("Masukkan R2 = ")
4 r2 = float(input())
5 print("Masukkan R3 = ")
6 r3 = float(input())
7 v = r1 * r2 * r3
8 print("Volume (V) = " + str(v))
9

```

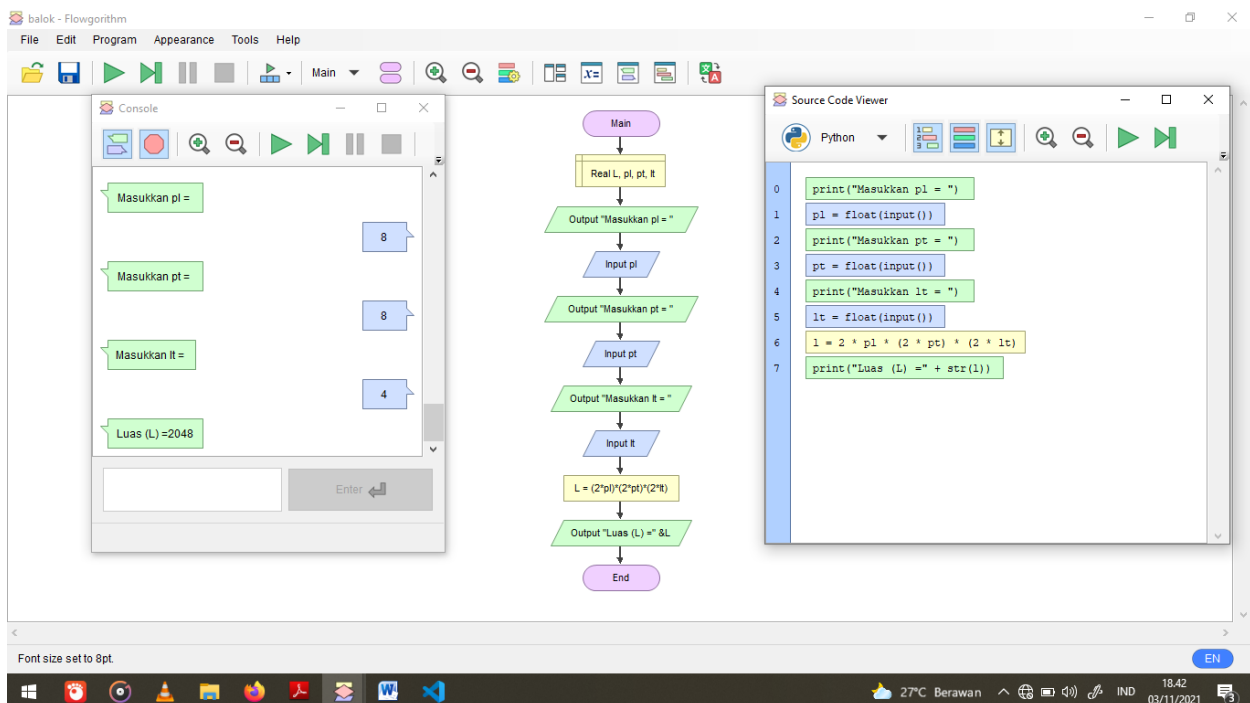
The TERMINAL pane at the bottom shows the execution of the script using Python 3.10.0. The user inputs values 6, 6, and 6 for R1, R2, and R3 respectively, resulting in a volume of 216.0.

```

PS C:\Users\ACER> & C:\Users\ACER\AppData\Local\Programs\Python\Python310\python.exe c:\Users\ACER\guslinats.py
Masukkan R1 = 6
Masukkan R2 = 6
Masukkan R3 = 6
Volume (V) =216.0
PS C:\Users\ACER>

```

- **BALOK**
  - Rumus Luas :



The screenshot shows the Visual Studio Code interface. The Explorer pane on the left indicates 'NO FOLDER OPENED'. The main editor displays the file `guslinats.py` with the following code:

```

1 print("Masukkan p1 = ")
2 p1 = float(input())
3 print("Masukkan pt = ")
4 pt = float(input())
5 print("Masukkan lt = ")
6 lt = float(input())
7 l = 2 * p1 * (2 * pt) * (2 * lt)
8 print("Luas (L) =" + str(l))
9

```

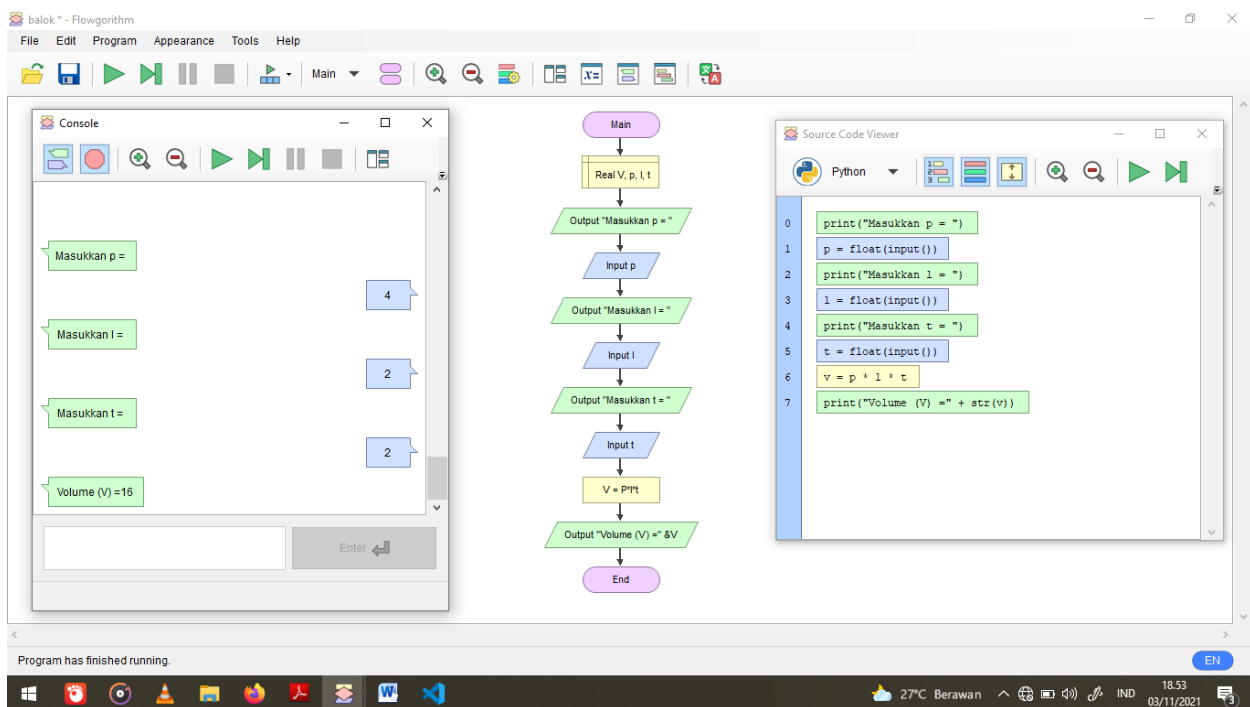
The TERMINAL pane at the bottom shows the execution of the script using Python 3.10.0. The output is as follows:

```

PS C:\Users\ACER> & C:\Users\ACER\AppData\Local\Programs\Python\Python310\python.exe c:\Users\ACER\guslinats.py
Masukkan p1 = 8
Masukkan pt = 8
Masukkan lt = 4
Luas (L) =2048.0
PS C:\Users\ACER>

```

- Rumus Volume (ISI) :



The screenshot shows the Visual Studio Code interface. The Explorer panel on the left indicates 'NO FOLDER OPENED'. The main editor displays the file `guslinats.py` with the following code:

```

1 print("Masukkan p = ")
2 p = float(input())
3 print("Masukkan l = ")
4 l = float(input())
5 print("Masukkan t = ")
6 t = float(input())
7 v = p * l * t
8 print("Volume (V) =" + str(v))
9

```

The TERMINAL panel at the bottom shows the execution of the script using Python 3.10.0 64-bit. The output is as follows:

```

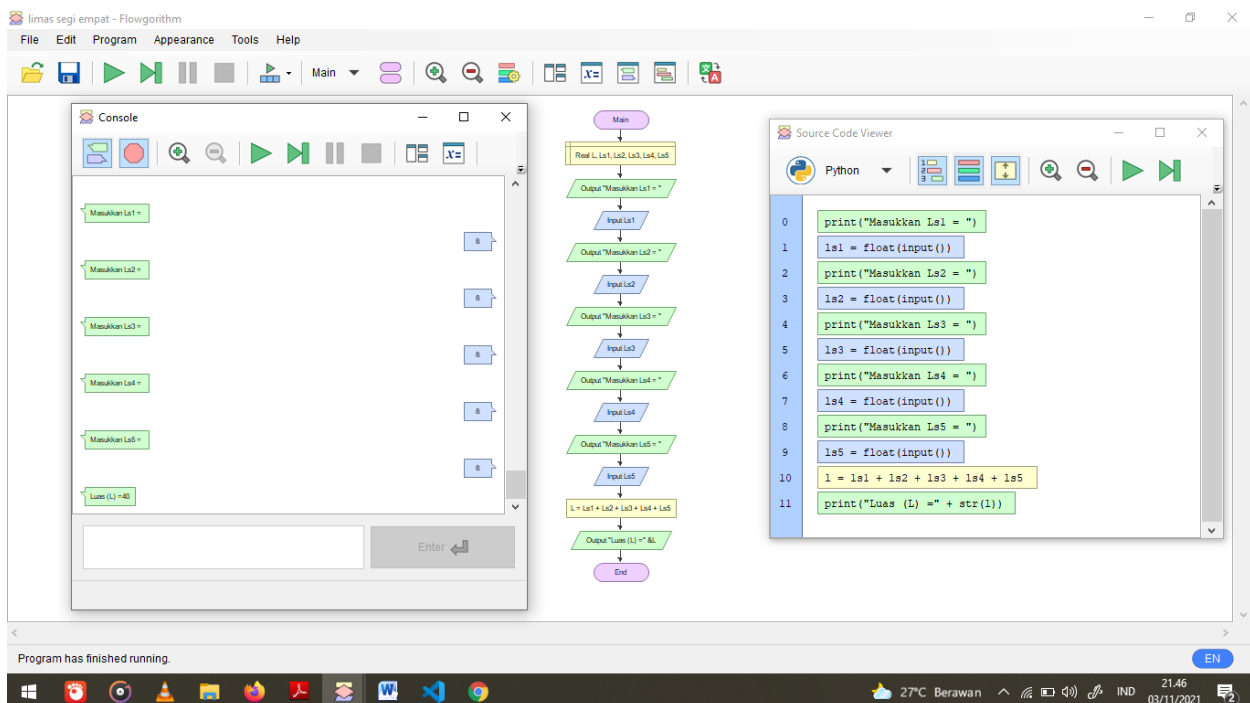
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\ACER> & C:/Users/ACER/AppData/Local/Programs/Python/Python310/python.exe c:/Users/ACER/guslinats.py
Masukkan p =
4
Masukkan l =
2
Masukkan t =
2
Volume (V) =16.0
PS C:\Users\ACER>

```

- **LIMAS SEGIEMPAT**  
- Rumus Luas :



The screenshot shows the Visual Studio Code interface. The Explorer panel on the left indicates 'NO FOLDER OPENED'. The main editor displays the file `guslinats.py` with the following code:

```

1 print("Masukkan Ls1 = ")
2 ls1 = float(input())
3 print("Masukkan Ls2 = ")
4 ls2 = float(input())
5 print("Masukkan Ls3 = ")
6 ls3 = float(input())
7 print("Masukkan Ls4 = ")
8 ls4 = float(input())
9 print("Masukkan Ls5 = ")
10 ls5 = float(input())
11 l = ls1 + ls2 + ls3 + ls4 + ls5
12 print("Luas (L) =" + str(l))

```

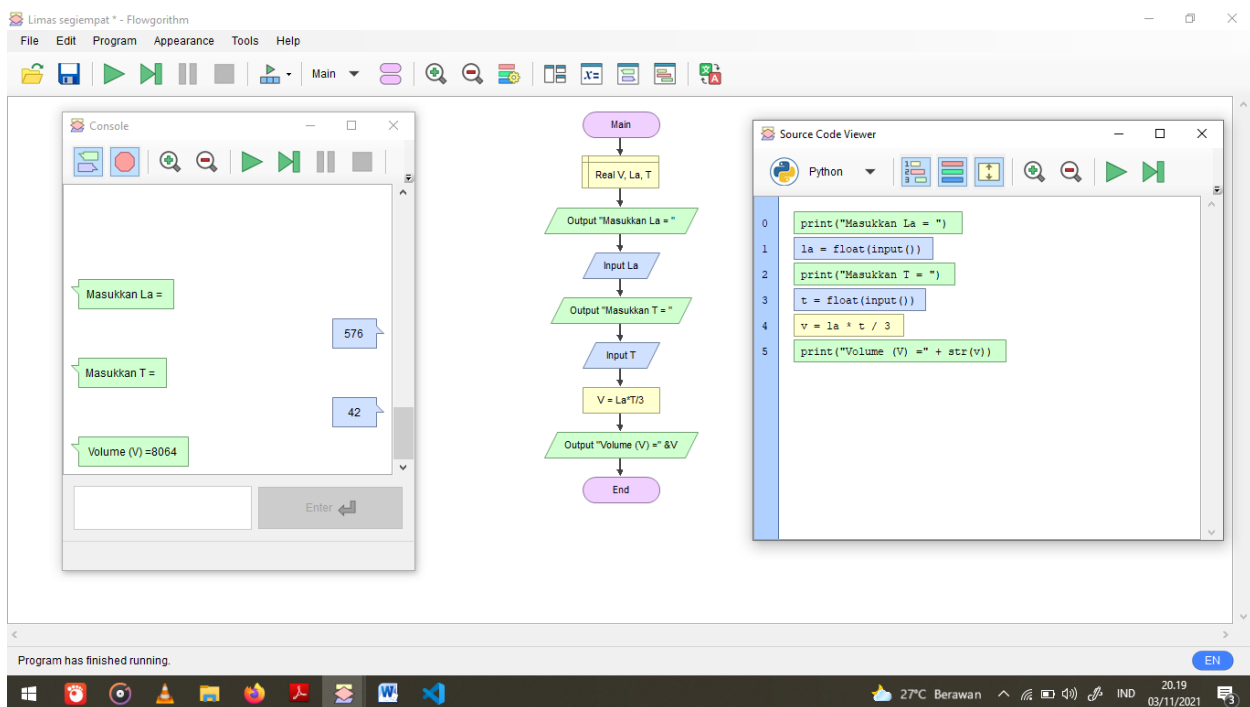
The TERMINAL panel at the bottom shows the execution of the script in a Windows PowerShell environment. The output is as follows:

```

PS C:\Users\ACER> & C:\Users\ACER\AppData\Local\Programs\Python\Python310\python.exe c:\Users\ACER\guslinats.py
Masukkan Ls1 = 8
Masukkan Ls2 = 8
Masukkan Ls3 = 8
Masukkan Ls4 = 8
Masukkan Ls5 = 8
Luas (L) =40.0
PS C:\Users\ACER>

```

- Rumus Volume (ISI) :



The screenshot shows the Visual Studio Code interface. The Explorer panel on the left indicates 'NO FOLDER OPENED'. The main editor displays the file `guslinats.py` with the following code:

```

1 print("Masukkan La = ")
2 la = float(input())
3 print("Masukkan T = ")
4 t = float(input())
5 v = la * t / 3
6 print("Volume (V) =" + str(v))
7

```

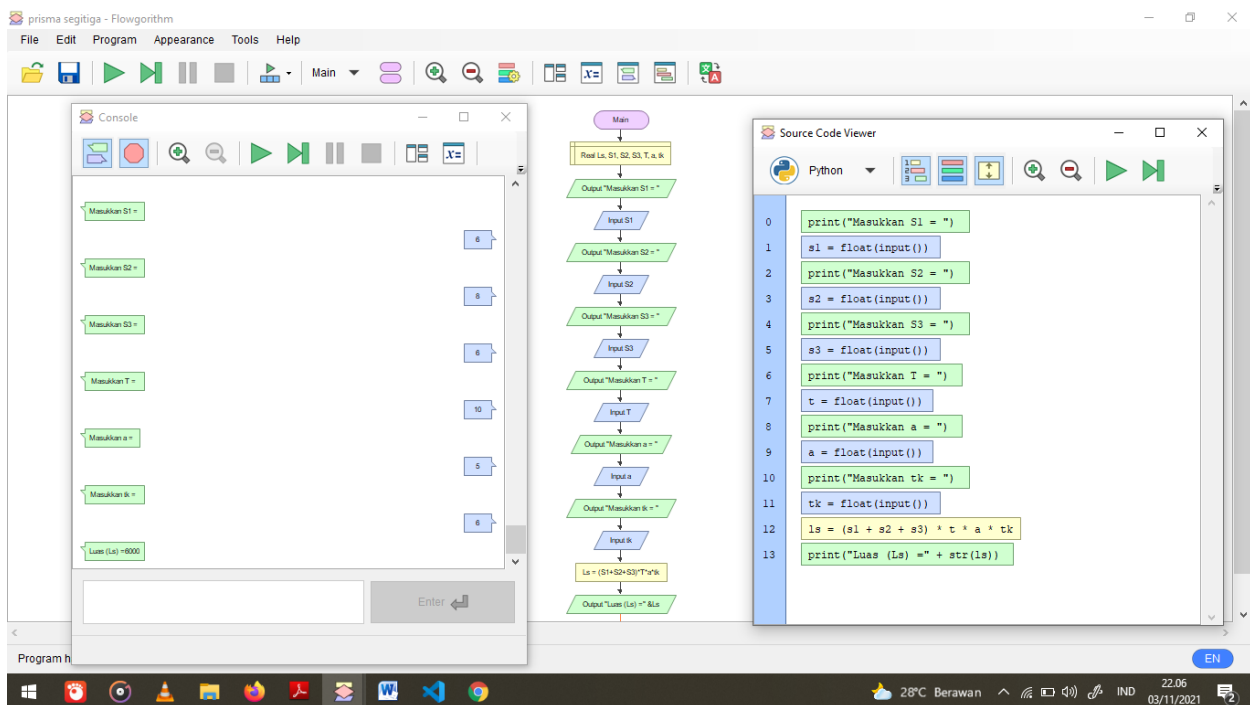
The TERMINAL panel at the bottom shows the execution of the script using Python 3.10.0. The user inputs 576 for 'Masukkan La' and 42 for 'Masukkan T', resulting in a 'Volume (V)' of approximately 8064.0.

```

PS C:\Users\ACER> & C:\Users\ACER\AppData\Local\Programs\Python\Python310\python.exe c:\Users\ACER\guslinats.py
Masukkan La =
576
Masukkan T =
42
Volume (V) ≈8064.0
PS C:\Users\ACER>

```

- **PRISMA SEGITIGA**
  - Rumus Luas :



The screenshot shows the Visual Studio Code interface. The Explorer panel on the left indicates 'NO FOLDER OPENED'. The main editor displays the file `guslinats.py` with the following code:

```

3 print("Masukkan S2 = ")
4 s2 = float(input())
5 print("Masukkan S3 = ")
6 s3 = float(input())
7 print("Masukkan T = ")
8 t = float(input())
9 print("Masukkan a = ")
10 a = float(input())
11 print("Masukkan tk = ")
12 tk = float(input())
13 ls = (s1 + s2 + s3) * t * a * tk
14 print("Luas (Ls) =" + str(ls))

```

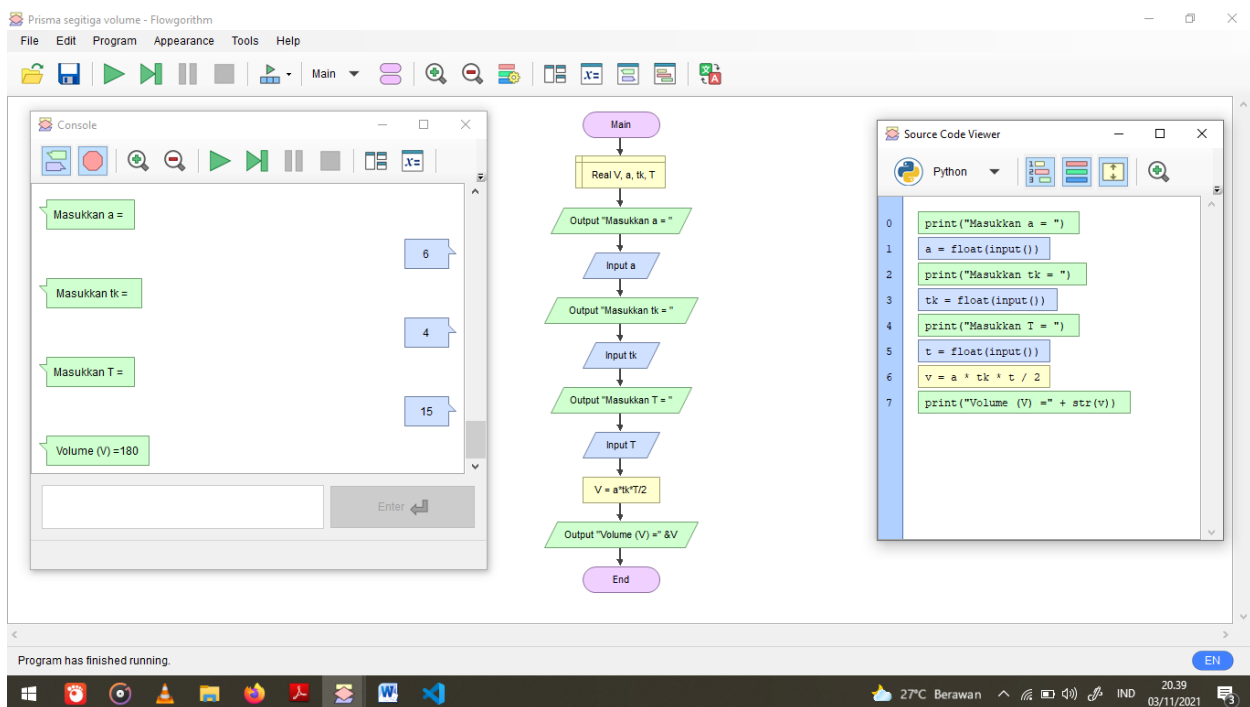
The TERMINAL panel at the bottom shows the command prompt execution:

```

PS C:\Users\ACER> & C:\Users\ACER\AppData\Local\Programs\Python\Python310\python.exe c:\Users\ACER\guslinats.py
Masukkan S1 = 6
Masukkan S2 = 8
Masukkan S3 = 6
Masukkan T = 10
Masukkan a = 8
Masukkan tk = 6
Luas (Ls) =9600.0
PS C:\Users\ACER>

```

- Rumus Volume (ISI) :





```

C:\Users\ACER> guslinats.py
1 print("Masukkan a = ")
2 a = float(input())
3 print("Masukkan tk = ")
4 tk = float(input())
5 print("Masukkan T = ")
6 t = float(input())
7 v = a * tk * t / 2
8 print("Volume (V) =" + str(v))
9

```

```

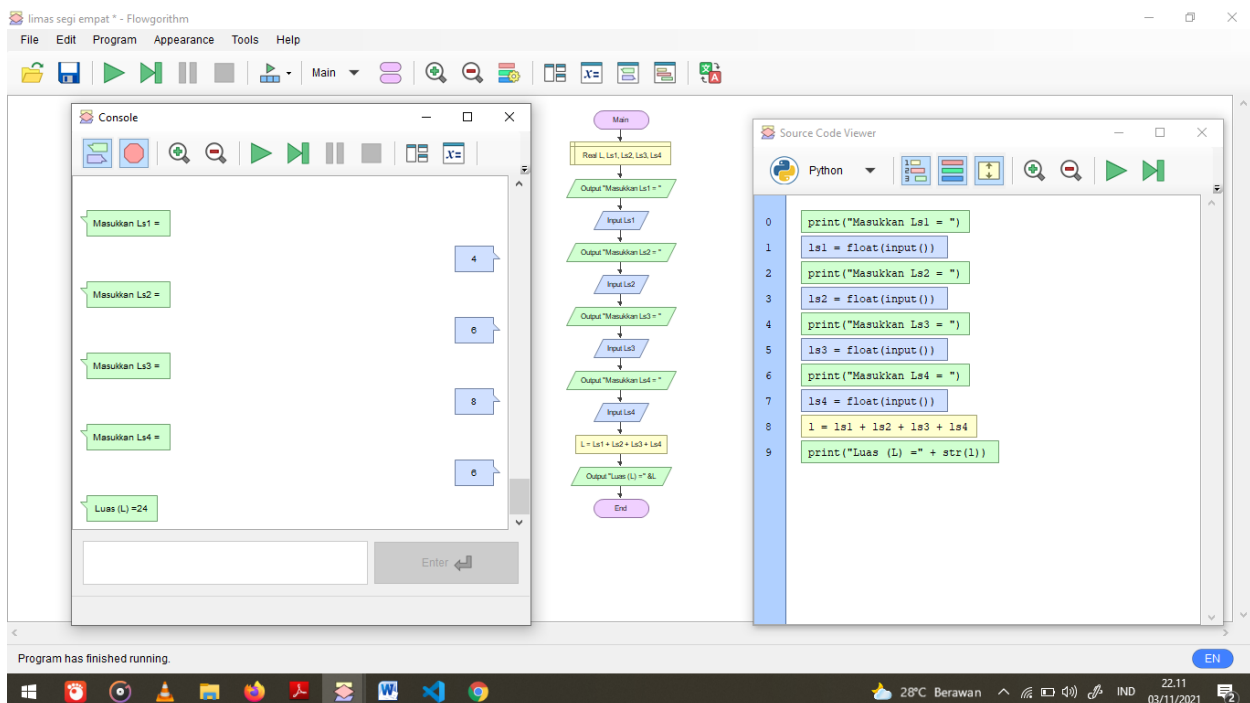
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\ACER> & C:\Users\ACER\AppData\Local\Programs\Python\Python310\python.exe c:/Users/ACER/guslinats.py
Masukkan a =
6
Masukkan tk =
4
Masukkan T =
15
Volume (V) =180.0
PS C:\Users\ACER>

```

- **LIMAS SEGITIGA**
  - Rumus Luas :



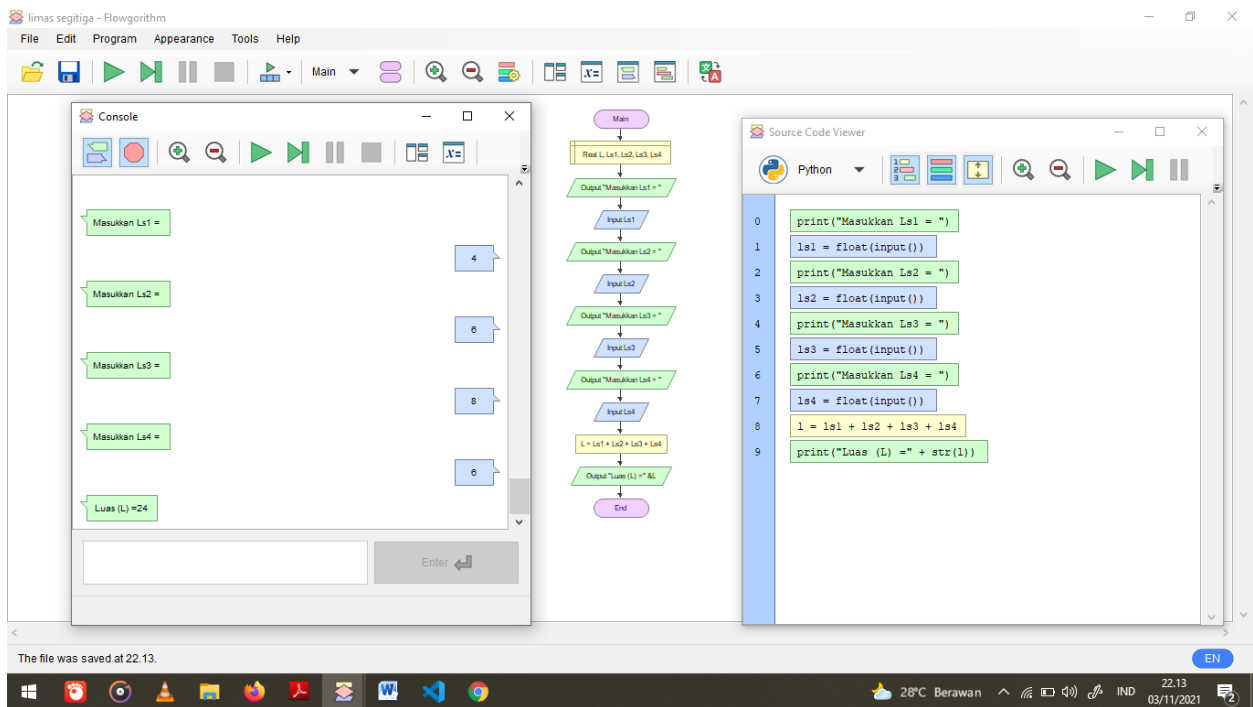
The screenshot shows the Visual Studio Code interface. The Explorer panel on the left shows a file named `guslinats.py`. The main editor displays the following Python code:

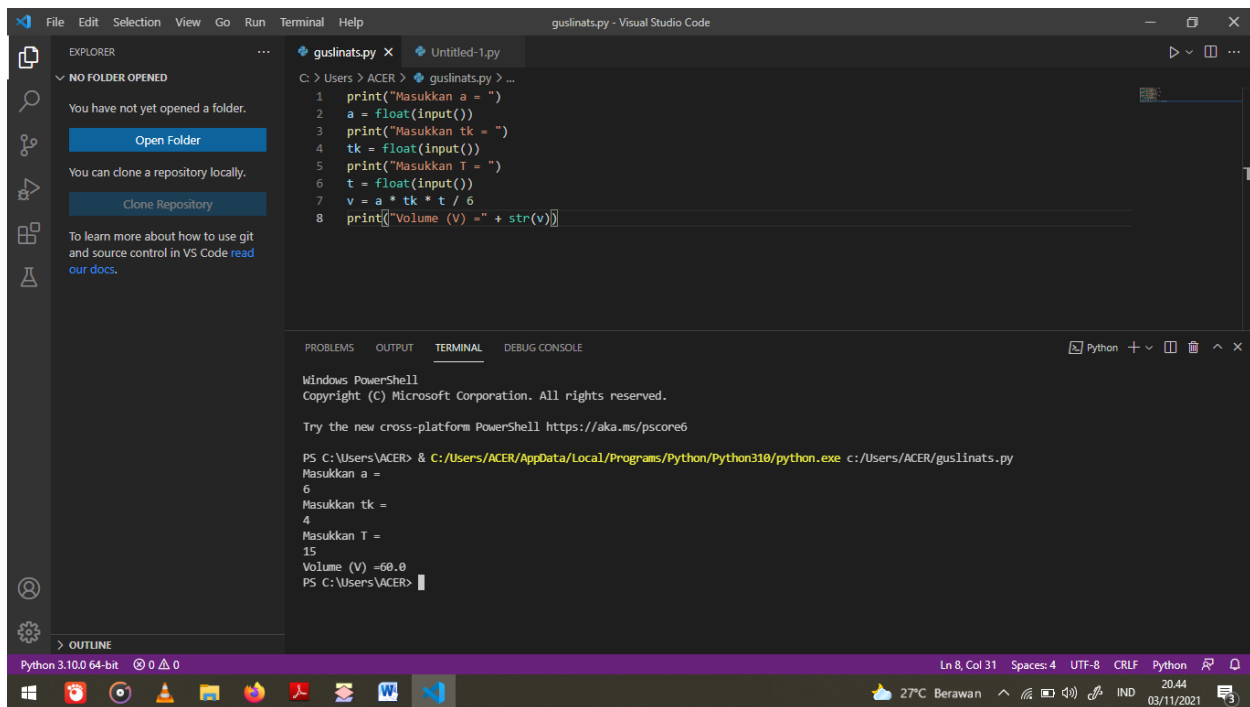
```
3 print("Masukkan Ls2 = ")
4 ls2 = float(input())
5 print("Masukkan Ls3 = ")
6 ls3 = float(input())
7 print("Masukkan Ls4 = ")
8 ls4 = float(input())
9 l = ls1 + ls2 + ls3 + ls4
10 print("Luas (L) =" + str(l))
```

The TERMINAL panel at the bottom shows the execution of the script using Python 3.10.0. The output is as follows:

```
PS C:\Users\VACER> & C:\Users\ACER\AppData\Local\Programs\Python\Python310\python.exe c:\Users\ACER\guslinats.py
Masukkan Ls1 =
4
Masukkan Ls2 =
6
Masukkan Ls3 =
8
Masukkan Ls4 =
6
Luas (L) =24.0
PS C:\Users\VACER>
```

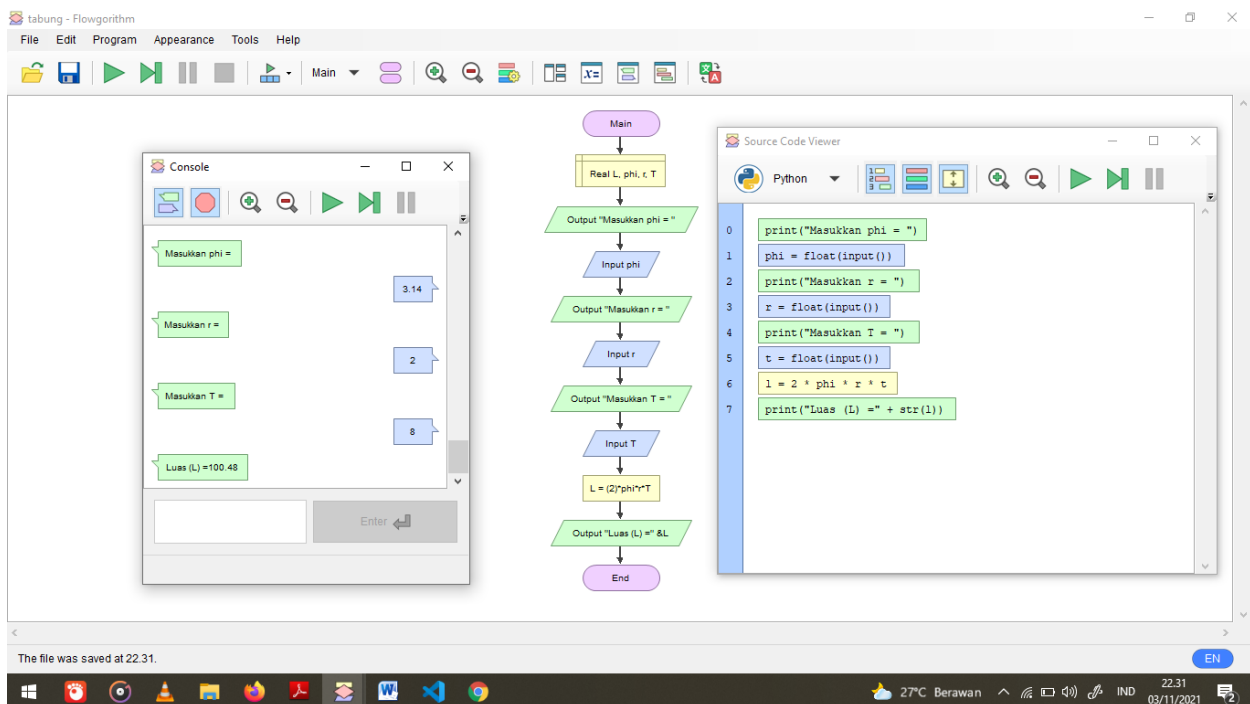
- Rumus Volume (ISI) :





- **SELINDER (TABUNG)**
  - Rumus Luas :

Luas selimut



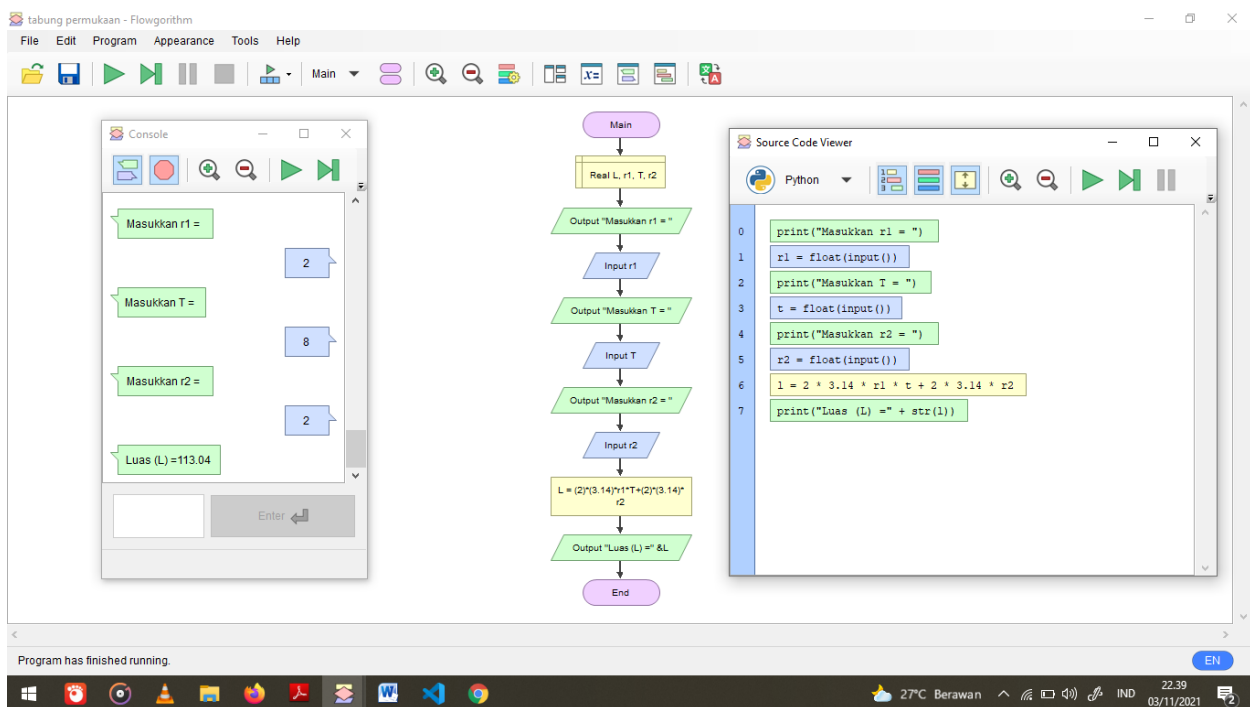
```
guslinats.py X  Untitled-1.py
C:\Users\ACER> guslinats.py
3 print("Masukkan r = ")
4 r = float(input())
5 print("Masukkan T = ")
6 t = float(input())
7 l = 2 * phi * r * t
8 print("Luas (L) =" + str(l))
9

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

PS C:\Users\ACER> & C:\Users\ACER\AppData\Local\Programs\Python\Python310\python.exe c:\Users\ACER\guslinats.py
Masukkan phi = 3.14
Masukkan r = 3.14
Masukkan T = 8
Luas (L) ~100.48
PS C:\Users\ACER>
```

## Luas permukaan



```

guslinats.py
3 print("Masukkan T = ")
4 t = float(input())
5 print("Masukkan r2 = ")
6 r2 = float(input())
7 l = 2 * 3.14 * r1 * t + 2 * 3.14 * r2
8 print("Luas (L) =" + str(l))
9

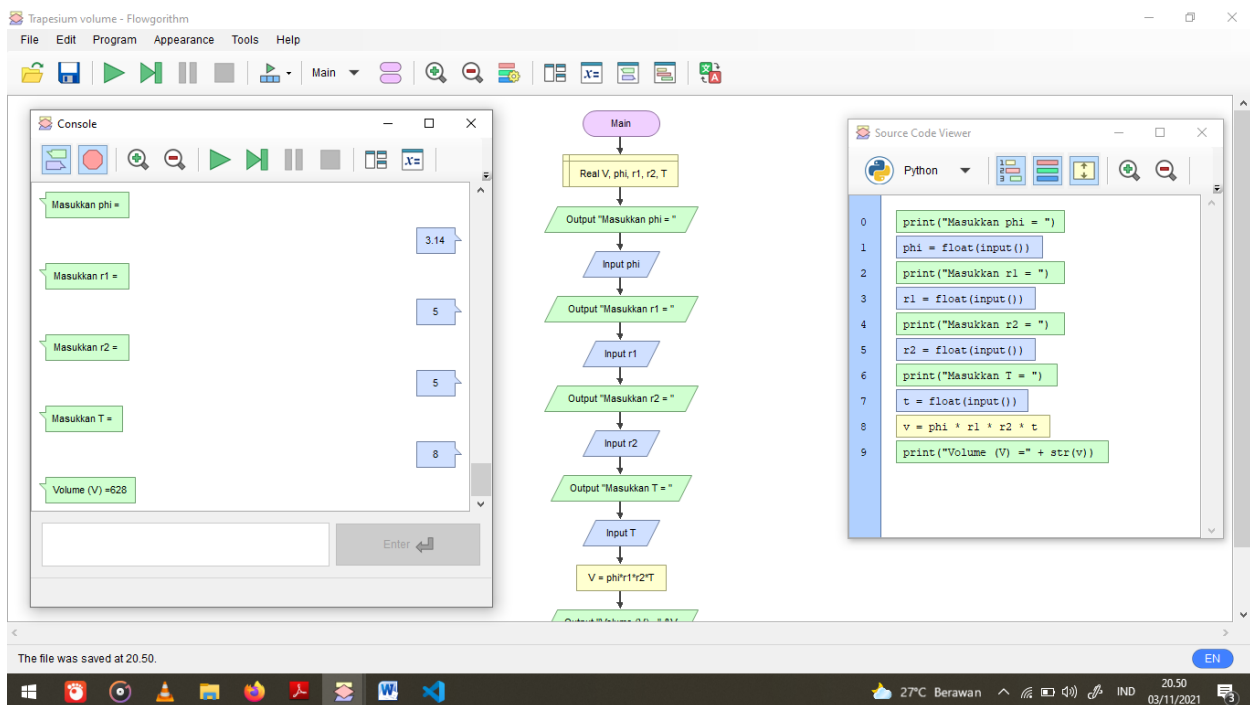
TERMINAL
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\ACER> & C:/Users/ACER/AppData/Local/Programs/Python/Python310/python.exe c:/Users/ACER/guslinats.py
Masukkan r1 = 2
Masukkan T = 8
Masukkan r2 = 2
Luas (L) ~113.04
PS C:\Users\ACER>

```

- Rumus Volume (ISI) :



The screenshot shows the Visual Studio Code interface. The Explorer panel on the left indicates 'NO FOLDER OPENED'. The main editor displays the file `guslinats.py` with the following Python code:

```

1 print("Masukkan phi = ")
2 phi = float(input())
3 print("Masukkan r1 = ")
4 r1 = float(input())
5 print("Masukkan r2 = ")
6 r2 = float(input())
7 print("Masukkan T = ")
8 t = float(input())
9 v = phi * r1 * r2 * t
10 print("Volume (V) =" + str(v))
11

```

The TERMINAL panel at the bottom shows the execution of the script in a Windows PowerShell environment. The output is as follows:

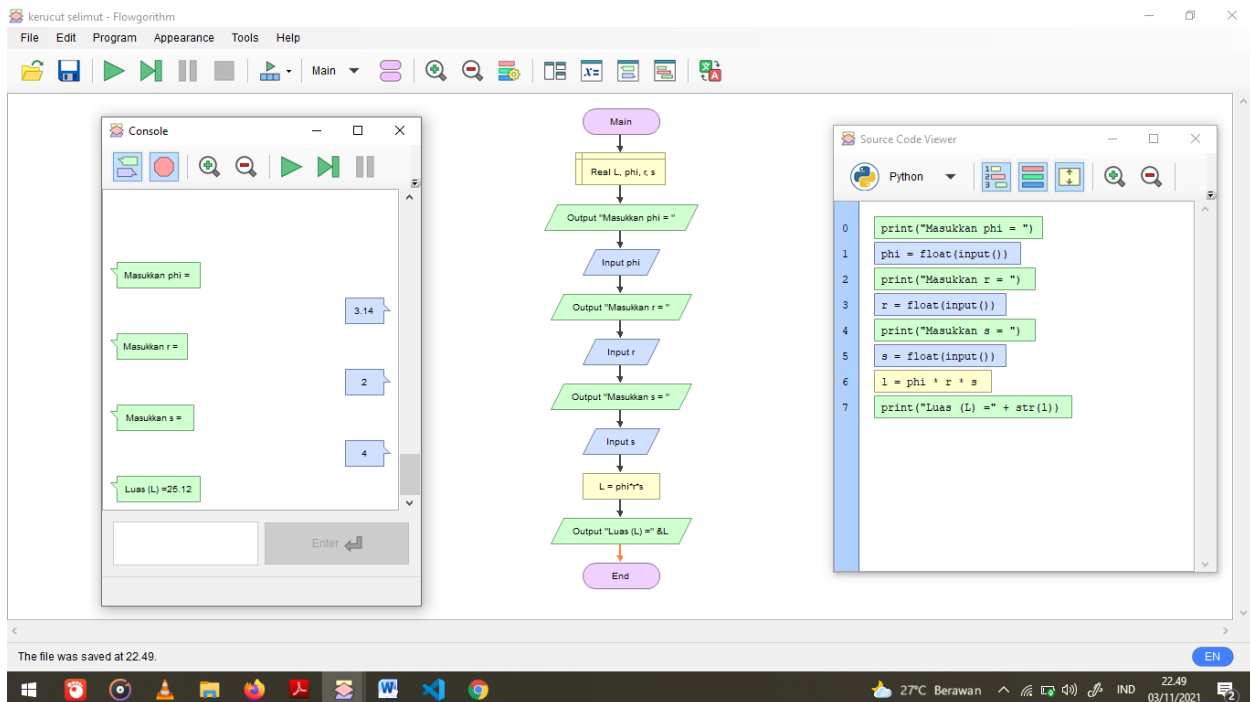
```

PS C:\Users\ACER> & C:\Users\ACER\AppData\Local\Programs\Python\Python310\python.exe c:\Users\ACER\guslinats.py
Masukkan phi = 3.14
Masukkan r1 = 5
Masukkan r2 = 5
Masukkan T = 8
Volume (V) =628.0
PS C:\Users\ACER>

```

- **KERUCUT**
  - Rumus Luas :

Luas selimut



```
guslinats.py - Visual Studio Code
EXPLORER
NO FOLDER OPENED
You have not yet opened a folder.
Open Folder
You can clone a repository locally.
Clone Repository
To learn more about how to use git and source control in VS Code read our docs.

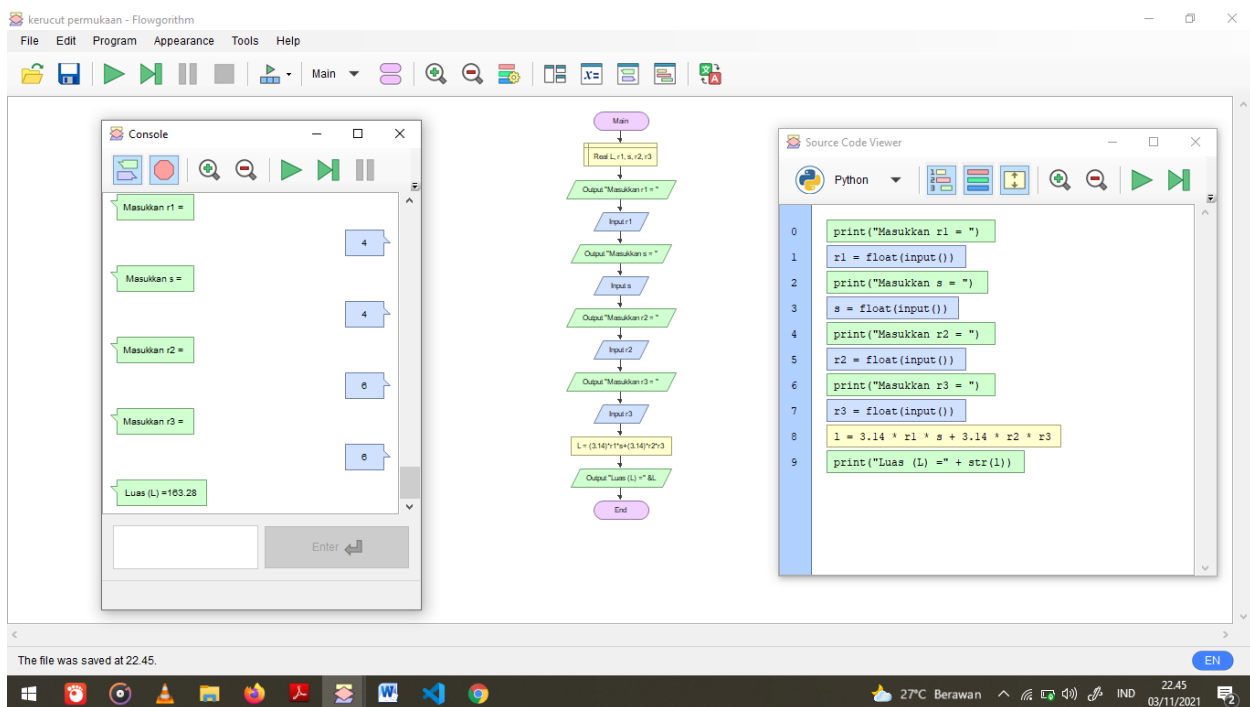
guslinats.py X Untitled-1.py
C:\Users\ACER> guslinats.py
3 print("Masukkan r = ")
4 r = float(input())
5 print("Masukkan s = ")
6 s = float(input())
7 l = phi * r * s
8 print("Luas (L) =" + str(l))
9

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

PS C:\Users\ACER> & C:\Users\ACER\AppData\Local\Programs\Python\Python310\python.exe c:\Users\ACER\guslinats.py
Masukkan phi =
3.14
Masukkan r =
2
Masukkan s =
4
Luas (L) ~25.12
PS C:\Users\ACER>
```

## Luas permukaan



```

File Edit Selection View Go Run Terminal Help
guslinats.py - Visual Studio Code

EXPLORER
NO FOLDER OPENED
You have not yet opened a folder.
Open Folder
You can clone a repository locally.
Clone Repository
To learn more about how to use git and source control in VS Code read our docs.

guslinats.py X Untitled-1.py
C:\Users\ACER> guslinats.py
3 print("Masukkan s = ")
4 s = float(input())
5 print("Masukkan r2 = ")
6 r2 = float(input())
7 print("Masukkan r3 = ")
8 r3 = float(input())
9 l = 3.14 * r1 * s + 3.14 * r2 * r3
10 print("Luas (L) = " + str(l))
11

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

PS C:\Users\ACER> & C:\Users\ACER\AppData\Local\Programs\Python\Python310\python.exe c:\Users\ACER\guslinats.py
Masukkan r1 =
4
Masukkan s =
4
Masukkan r2 =
6
Masukkan r3 =
6
Luas (L) =163.28
PS C:\Users\ACER>

```

- Rumus Volume (ISI) :

kerucut volume - Flowgorithm

File Edit Program Appearance Tools Help

Console

```

Masukkan phi = 3.14
Masukkan r1 = 15
Masukkan r2 = 15
Masukkan T = 20
Volume (V) =4710

```

Flowchart:

```

graph TD
    Main([Main]) --> ReadV[Read V, phi, r1, r2, T]
    ReadV --> OutputPhi[Output "Masukkan phi = "]
    OutputPhi --> InputPhi[/Input phi/]
    InputPhi --> OutputR1[Output "Masukkan r1 = "]
    OutputR1 --> InputR1[/Input r1/]
    InputR1 --> OutputR2[Output "Masukkan r2 = "]
    OutputR2 --> InputR2[/Input r2/]
    InputR2 --> OutputT[Output "Masukkan T = "]
    OutputT --> InputT[/Input T/]
    InputT --> CalcV[V = phi * r1 * r2 * T / 3]
    CalcV --> OutputV[Output "Volume (V) = " & V]
    OutputV --> End([End])

```

Source Code Viewer

```

Python
0 print("Masukkan phi = ")
1 phi = float(input())
2 print("Masukkan r1 = ")
3 r1 = float(input())
4 print("Masukkan r2 = ")
5 r2 = float(input())
6 print("Masukkan T = ")
7 t = float(input())
8 v = phi * r1 * r2 * t / 3
9 print("Volume (V) =" + str(v))

```

Program has finished running.



The screenshot shows the Visual Studio Code interface. The Explorer panel on the left indicates 'NO FOLDER OPENED'. The main editor displays the file `guslinats.py` with the following code:

```

1 print("Masukkan phi = ")
2 phi = float(input())
3 print("Masukkan r1 = ")
4 r1 = float(input())
5 print("Masukkan r2 = ")
6 r2 = float(input())
7 print("Masukkan T = ")
8 t = float(input())
9 v = phi * r1 * r2 * t / 3
10 print("Volume (V) =" + str(v))

```

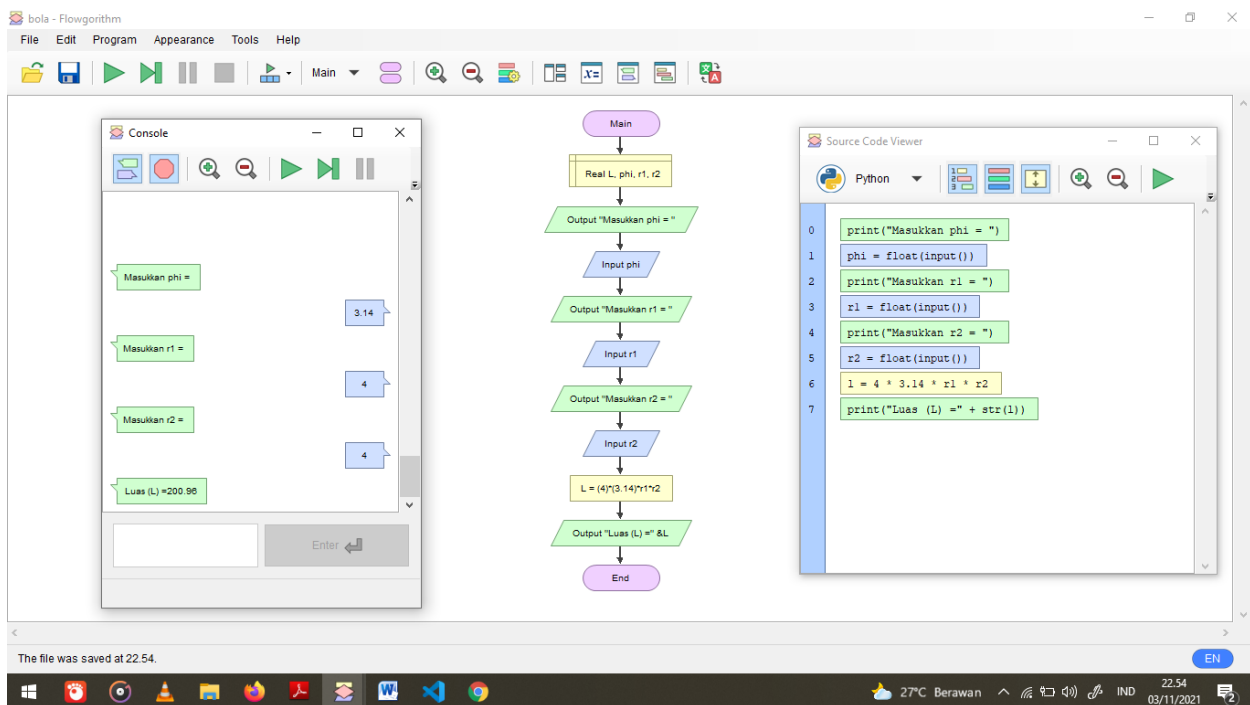
The TERMINAL panel at the bottom shows the execution of the script using PowerShell:

```

PS C:\Users\ACER> & C:\Users\ACER\AppData\Local\Programs\Python\Python310\python.exe c:\Users\ACER\guslinats.py
Masukkan phi = 3.14
Masukkan r1 = 15
Masukkan r2 = 15
Masukkan T = 20
Volume (V) =4710.0
PS C:\Users\ACER>

```

- **BOLA**
  - Rumus Luas :



The screenshot shows the Visual Studio Code interface. The Explorer pane on the left shows a file named `guslinats.py`. The main editor displays the following Python code:

```

3 print("Masukkan r1 = ")
4 r1 = float(input())
5 print("Masukkan r2 = ")
6 r2 = float(input())
7 l = 4 * 3.14 * r1 * r2
8 print("Luas (L) =" + str(l))
9

```

The TERMINAL pane at the bottom shows the execution of the script using the command:
`PS C:\Users\ACER> & C:\Users\ACER\AppData\Local\Programs\Python\Python310\python.exe c:\Users\ACER\guslinats.py`
The output of the script is:

```

Masukkan phi = 3.14
Masukkan r1 = 4
Masukkan r2 = 4
Luas (L) ~200.96
PS C:\Users\ACER>

```

- Rumus Volume (ISI) :

