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1. Proses Flowgorithm dan VS Code

Kubus

The image displays two screenshots of a programming environment. The top screenshot shows the Flowgorithm IDE with a flowchart for calculating the volume of a cube. The flowchart starts with a 'Main' terminal, followed by a declaration 'Integer a, b, c'. It then prompts 'Input Ruas' (Input Edge), takes input '7', calculates $b = 6 * a^2$ (resulting in 294), calculates $c = a^3$ (resulting in 343), and outputs 'Luas %b' and 'Volume %c'. The bottom screenshot shows the Visual Studio Code editor with the same Python code implemented. The code prompts for 'Input Ruas', reads the input, calculates $b = 6 * a^2$ and $c = a^3$, and prints the results. The terminal output shows 'Input Ruas', 'Luas 294', and 'Volume 343'.

```
graph TD
    Main([Main]) --> Decl[Integer a, b, c]
    Decl --> Output1[Output "Input Ruas"]
    Output1 --> Input1[Input a]
    Input1 --> CalcB[b = 6 * a^2]
    CalcB --> CalcC[c = a^3]
    CalcC --> Output2[Output "Luas %b"]
    Output2 --> Output3[Output "Volume %c"]
    Output3 --> End([End])
```

```
0 print("Input Ruas")
1 a = int(input())
2 b = 6 * a ** 2
3 c = a * a * a
4 print("Luas " + str(b))
5 print("Volume " + str(c))
```

```
1 print("Input Ruas")
2 a = int(input())
3 b = 6 * a ** 2
4 c = a * a * a
5 print("Luas " + str(b))
6 print("Volume " + str(c))
7
```

2. Proses Flowgorithm dan VS Code

Balok

The image displays two software interfaces side-by-side, illustrating the process of developing a Python program.

Flowgorithm (Top): This window shows a flowchart for a program. The steps are: Main, Integer a, b, c, d, e, Output "Masukan Panjang", Input c, Output "Masukan Lebar", Input d, Output "Masukan Tinggi", Input e, $a = (2 * c * d) + (2 * c * d) + (2 * d * e)$, and $b = c * d * e$. The Console window shows the execution results: Masukan Panjang (12), Masukan Lebar (7), Masukan Tinggi (5), Maka Volume 420, and Maka Luas 406. The Source Code Viewer shows the corresponding Python code:

```
0 print("Masukan Panjang")
1 c = int(input())
2 print("Masukan Lebar")
3 d = int(input())
4 print("Masukan Tinggi")
5 e = int(input())
6 a = 2 * c * d + 2 * c * d + 2 * d * e
7 b = c * d * e
8 print("Maka Volume " + str(b))
9 print("Maka Luas " + str(a))
```

VS Code (Bottom): This window shows the same Python code in a text editor. The Explorer pane shows the file structure: Main.py. The Terminal pane shows the command prompt output, including the command to run the program and the resulting output: Input Ruas, Luas 294, Volume 343.

3. Proses Flowgorithm dan VS Code

Limas Segiempat

The image displays two software environments used for developing and running a Python program to calculate the volume of a square pyramid.

Flowgorithm (Top): The flowchart illustrates the program's logic. It starts with a 'Main' process, followed by a declaration of integer variables 'a, b, c, d'. The process then prompts the user to 'Masukan Sisi' (Enter Side) and 'Masukan Tinggi' (Enter Height). It calculates 'a = c * 5' and 'b = 0.3 * c * d'. Finally, it outputs 'Luas %a' (Area %a) and 'Volume %b' (Volume %b). The console shows the inputs 'Masukan Sisi' (7) and 'Masukan Tinggi' (12), resulting in 'Luas 35' and 'Volume 25'.

VS Code (Bottom): The Source Code Viewer shows the Python code for the program. The code prompts the user to enter the side and height, calculates the area and volume, and prints the results.

```
0 print("Masukan Sisi")
1 c = int(input())
2 print("Masukan Tinggi")
3 d = int(input())
4 a = c * 5
5 b = 0.3 * c * d
6 print("Luas " + str(a))
7 print("Volume " + str(b))
```

The VS Code interface also shows the Explorer pane with the file 'Main.py' and the Terminal pane displaying the program's output:

```
PS C:\Users\ZASKIA ADZKIA SHAMU\Documents\Tutorial python\00 Template> "c:/Users/ZASKIA ADZKIA SHAMU/AppData/Local/Programs/Python/Python310/python.exe" "c:/Users/ZASKIA ADZKIA SHAMU/Documents/Tutorial python/00 Template/Main.py"
Masukan Sisi
7
Masukan Tinggi
12
Luas 35
Volume 25.200000000000003
PS C:\Users\ZASKIA ADZKIA SHAMU\Documents\Tutorial python\00 Template>
```

4. Proses Flowgorithm dan VS Code

Prisma segitiga

The image illustrates the process of developing a Python program for calculating the area and volume of a triangular prism, showing both the Flowgorithm flowchart and the corresponding Python code in VS Code.

Flowgorithm Flowchart:

```
graph TD
    Main([Main]) --> Integer[Integer a, b, c, d, e, f]
    Integer --> OutputP[Output "Masukan Panjang"]
    OutputP --> InputA[/Input a/]
    InputA --> OutputL[Output "Masukan Lebar"]
    OutputL --> InputB[/Input b/]
    InputB --> OutputT[Output "Masukan Tinggi"]
    OutputT --> InputC[/Input c/]
    InputC --> OutputS[Output "Masukan Sisi"]
    OutputS --> InputD[/Input d/]
    InputD --> End([End])
```

Flowgorithm Console Output:

```
Masukan Panjang 10
Masukan Lebar 7
Masukan Tinggi 12
Masukan Sisi 5
Luas 180
Volume 420
```

Python Code (Main.py):

```
0 print("Masukan Panjang")
1 a = int(input())
2 print("Masukan Lebar")
3 b = int(input())
4 print("Masukan Tinggi")
5 c = int(input())
6 print("Masukan Sisi")
7 d = int(input())
8 f = (d + d + d) * c
9 e = 0.5 * a * b * c
10 print("Luas " + str(f))
11 print("Volume " + str(e))
```

VS Code Editor:

The VS Code editor shows the same Python code as above. The terminal output matches the Flowgorithm console output:

```
c:\Users\ZASKIA ADZKIA SHAMUJ\Documents\Tutorial python\00 Template\Main.py
Masukan Panjang
10
Masukan Lebar
7
Masukan Tinggi
12
Masukan Sisi
5
Luas 180
Volume 420.0
PS C:\Users\ZASKIA ADZKIA SHAMUJ\Documents\Tutorial python\00 Template>
```

5. Proses Flowgorithm dan VS Code

Limas Segitiga

The image displays two screenshots illustrating the process of developing a program to calculate the volume of a triangular pyramid (Limas Segitiga).

Top Screenshot (Flowgorithm): Shows the Flowgorithm IDE with a flowchart and a console window.

Flowchart Steps:

- Start (Main)
- Declare Integer variables a, b, c, d
- Output "Masukan Alas"
- Input c
- Output "Masukan Tinggi"
- Input d
- Calculate $b = c * 4$
- Calculate $a = 0.166 * c * d$
- Output "Luas "&b
- Output "Volume "&a
- End

Console Output:

```
Masukan Alas
Masukan Tinggi
Luas 48
Volume 23
```

Source Code Viewer (Python):

```
0 print("Masukan Alas")
1 c = int(input())
2 print("Masukan Tinggi")
3 d = int(input())
4 b = c * 4
5 a = 0.166 * c * d
6 print("Luas " + str(b))
7 print("Volume " + str(a))
```

Bottom Screenshot (VS Code): Shows the Visual Studio Code editor with the same Python code and a terminal window.

VS Code Editor:

```
1 print("Masukan Alas")
2 c = int(input())
3 print("Masukan Tinggi")
4 d = int(input())
5 b = c * 4
6 a = 0.166 * c * d
7 print("Luas " + str(b))
8 print("Volume " + str(a))
9
```

Terminal Output:

```
PS C:\Users\ZASKIA ADZKIA SHANUM\Documents\tutorial python\00 Template> & "C:/Users/ZASKIA ADZKIA SHANUM/AppData/Local/Programs/Python/Python310/python.exe" "c:/Users/ZASKIA ADZKIA SHANUM/Documents/Tutorial python/00 Template/Main.py"
Masukan Alas
12
Masukan Tinggi
12
Luas 48
Volume 23.904
PS C:\Users\ZASKIA ADZKIA SHANUM\Documents\tutorial python\00 Template> 12
```

6. Proses Flowgorithm dan VS Code

Tabung

The image displays two software environments used for developing a program to calculate the volume and surface area of a cylinder.

Flowgorithm (Top): The Flowchart window shows the logic of the program. It starts with a 'Main' block, followed by 'Read a', 'Integer b, c, d, e, f', and 'a = 3.14'. It then prompts for 'Masukan Tinggi' (Input b) and 'Masukan Ruas' (Input c). The calculations are: $d = (2 * r * c) + (2 * r * c * 2)$, $e = a * c * 2 * b$, $f = 2 * r * r * c$. The final outputs are 'Luas 2574', 'Volume 12560', and 'selimut 1256'. The Console window shows the execution results: 'Masukan Tinggi' (10), 'Masukan Ruas' (20), 'Luas 2574', 'Volume 12560', and 'selimut 1256'.

VS Code (Bottom): The Source Code window shows the Python code for the program. The code is as follows:

```
0 a = 3.14
1 print("Masukan Tinggi")
2 b = int(input())
3 print("Masukan Ruas")
4 c = int(input())
5 d = 2 * a * b + 2 * a * c * 2
6 print("Luas " + str(d))
7 e = a * c * 2 * b
8 print("Volume " + str(e))
9 f = 2 * a * c * b
10 print("selimut " + str(f))
```

The Terminal window shows the command prompt output, which matches the console output in Flowgorithm:

```
PS C:\Users\ZASKIA ADZKIA SHAWAL\Documents\Tutorial python\00 Template> & "C:/Users/ZASKIA ADZKIA SHAWAL/AppData/Local/Programs/Python/Python310/python.exe" "c:/Users/ZASKIA ADZKIA SHAWAL/Documents/Tutorial python/00 Template/Main.py"
Masukan Tinggi
10
Masukan Ruas
20
Luas 2574.8
Volume 12560.0
selimut 1256.0
PS C:\Users\ZASKIA ADZKIA SHAWAL\Documents\Tutorial python\00 Template>
```

7. Proses Flowgorithm dan VS Code

Kerucut

The image displays two software interfaces side-by-side, illustrating the process of developing a program for calculating the surface area and volume of a cone.

Top Interface: Flowgorithm

The Flowgorithm window shows a flowchart for a cone calculation program. The steps are as follows:

- Start (Main)
- Read z
- Integer a, b, c, d, e, f
- $z = 3.14$
- Output "Masukan Ruas"
- Input d
- Output "Masukan Sisi"
- Input e
- Output "Masukan Tinggi"
- Input f
- $a = z * f * e + z * d ** 2$
- $c = z * f * e$
- $b = 0.3 * z * d ** 2$
- Output "Luas Permukaan" a
- Output "Selimut" c
- Output "Volume" b

The Console window shows the execution results:

- Masukan Ruas: 3
- Masukan Sisi: 5
- Masukan Tinggi: 4
- Luas Permukaan 75
- Selimut 47
- Volume 8

Bottom Interface: Visual Studio Code

The Visual Studio Code window shows the Python source code for the same program:

```
1 z = 3.14
2 print("Masukan Ruas")
3 d = int(input())
4 print("Masukan Sisi")
5 e = int(input())
6 print("Masukan Tinggi")
7 f = int(input())
8 a = z * d * e + z * d ** 2
9 c = z * d * e
10 b = 0.3 * z * d ** 2
11 print("Luas Permukaan " + str(a))
12 print("Selimut " + str(c))
13 print("Volume " + str(b))
14
```

The Terminal window shows the execution output:

```
PS C:\Users\ZASKIA ADZKIA SHAMUM\Documents\Tutorial python\00 Template> & "C:/Users/ZASKIA ADZKIA SHAMUM/AppData/Local/Programs/Python/Python310/python.exe" ""
c:/Users/ZASKIA ADZKIA SHAMUM/Documents/Tutorial python/00 Template/Main.py"
Masukan Ruas
3
Masukan Sisi
5
Masukan Tinggi
4
Luas Permukaan 75.36
Selimut 47.1
Volume 8.478
PS C:\Users\ZASKIA ADZKIA SHAMUM\Documents\Tutorial python\00 Template>
```

8. Proses Flowgorithm dan VS Code

Bola

The image displays two software environments side-by-side, illustrating the process of developing a program for calculating the area and volume of a sphere.

Flowgorithm (Top Left): Shows a flowchart for the program. The steps are: Main, Read a, Integer b, c, d, a = 3.14, Output "Masukan Jari-Jari", Input b, $c = 4 * a * b^2 / 2$, $d = 1.333333333333 * a * b^3$, Output "Luas " & c, Output "Volume " & d, End.

Source Code Viewer (Top Right): Shows the corresponding Python code:

```
0 a = 3.14
1 print("Masukan Jari-Jari")
2 b = int(input())
3 c = 4 * a * b ** 2
4 d = 1.333333333333 * a * b ** 3
5 print("Luas " + str(c))
6 print("Volume " + str(d))
```

VS Code (Bottom): Shows the same Python code in the editor. The terminal output shows the program execution:

```
PS C:\Users\ZASKIA ADZKIA SHANUM\Documents\Tutorial python\00 Template> & "C:/Users/ZASKIA ADZKIA SHANUM/AppData/Local/Programs/Python/Python310/python.exe" "c:/Users/ZASKIA ADZKIA SHANUM/Documents/Tutorial python/00 Template/Main.py"
Masukan Jari-Jari
25
Luas 7850.0
Volume 65416.66666666667
PS C:\Users\ZASKIA ADZKIA SHANUM\Documents\Tutorial python\00 Template>
```