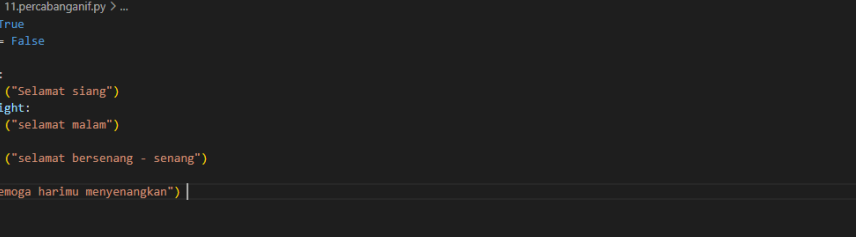


Kelas : D

1. Percabangan if



The image shows a Windows desktop with two open windows. The top window is Visual Studio Code, displaying a Python file named '11.percabanganif.py'. The code is as follows:

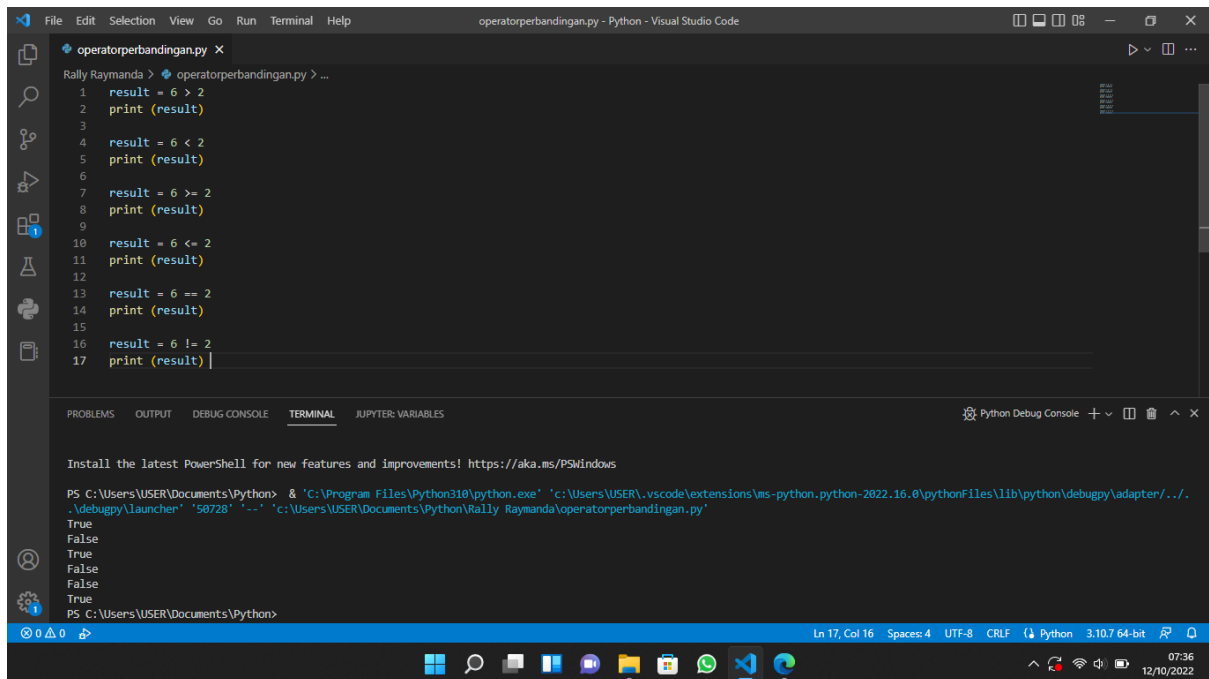
```
1 is_day = True
2 is_night = False
3
4 if is_day:
5     print ("Selamat siang")
6 elif is_night:
7     print ("selamat malam")
8 else:
9     print ("selamat bersenang - senang")
10
11 print ("Semoga harimu menyenangkan")
```

The bottom window is a Windows PowerShell terminal. It shows the command prompt at 'PS C:\Users\USER\Documents\Python>' and the execution of the Python script using 'python.exe'. The output of the script is displayed in the terminal:

```
PS C:\Users\USER\Documents\Python> & "C:\Program Files\Python310\python.exe" "c:\Users\USER\.vscode\extensions\ms-python.python-2022.16.0\pythonFiles\lib\python\debugpy\adapter\../.debugpy\launcher" "58597" "--" "c:\Users\USER\Documents\Python\Rally Raymanda\11.percabanganif.py"
Selamat siang
Semoga harimu menyenangkan
PS C:\Users\USER\Documents\Python>
```

The status bar at the bottom of the VS Code window indicates the current line and column (Ln 11, Col 38), the number of spaces (4), the encoding (UTF-8), the line ending (CRLF), the interpreter (Python), and the architecture (3.10.7 64-bit).

2. Operator perbandingan

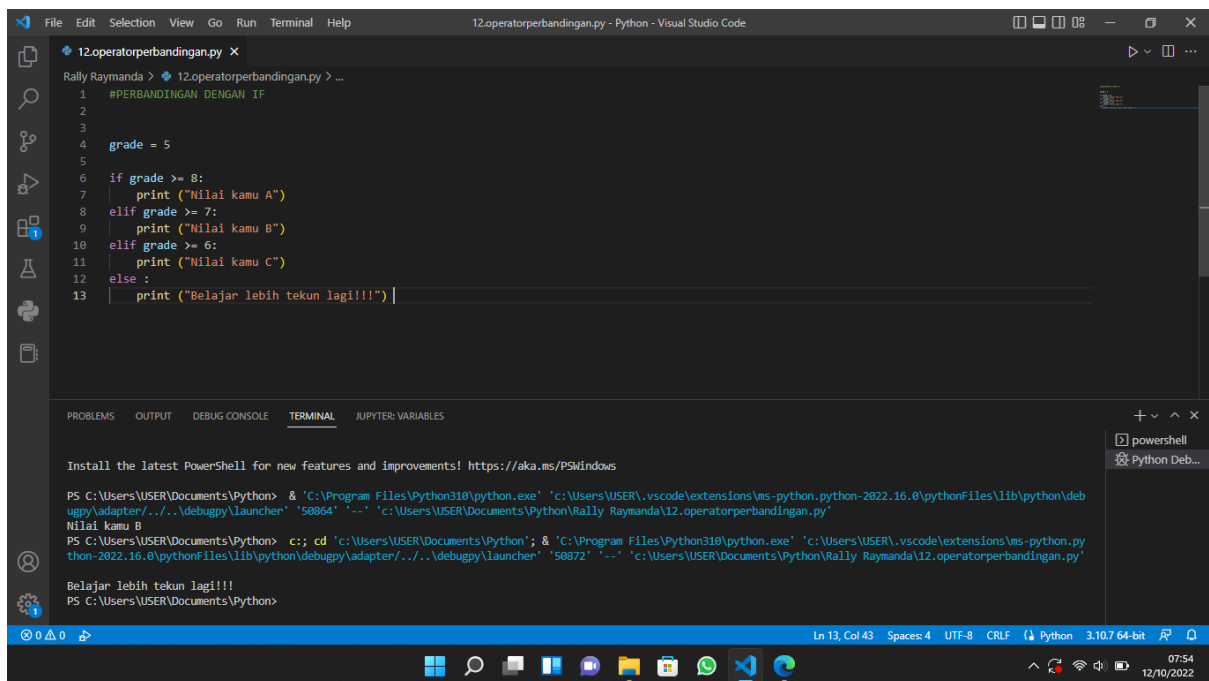


The screenshot shows a Visual Studio Code window with a file named `operatorperbandingan.py`. The code defines a variable `result` and uses various comparison operators to compare it with the value 2. The terminal output shows the results of these comparisons.

```
1 result = 6 > 2
2 print (result)
3
4 result = 6 < 2
5 print (result)
6
7 result = 6 >= 2
8 print (result)
9
10 result = 6 <= 2
11 print (result)
12
13 result = 6 == 2
14 print (result)
15
16 result = 6 != 2
17 print (result) |
```

Terminal Output:

```
Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows
PS C:\Users\USER\Documents\Python> & 'C:\Program Files\Python310\python.exe' 'c:\Users\USER\.vscode\extensions\ms-python.python-2022.16.0\pythonFiles\lib\python\debugpy\adapter\..\debugpy\launcher' '50728' '-.' 'c:\Users\USER\Documents\Python\Rally Raymunda\operatorperbandingan.py'
True
False
True
True
False
False
True
PS C:\Users\USER\Documents\Python>
```



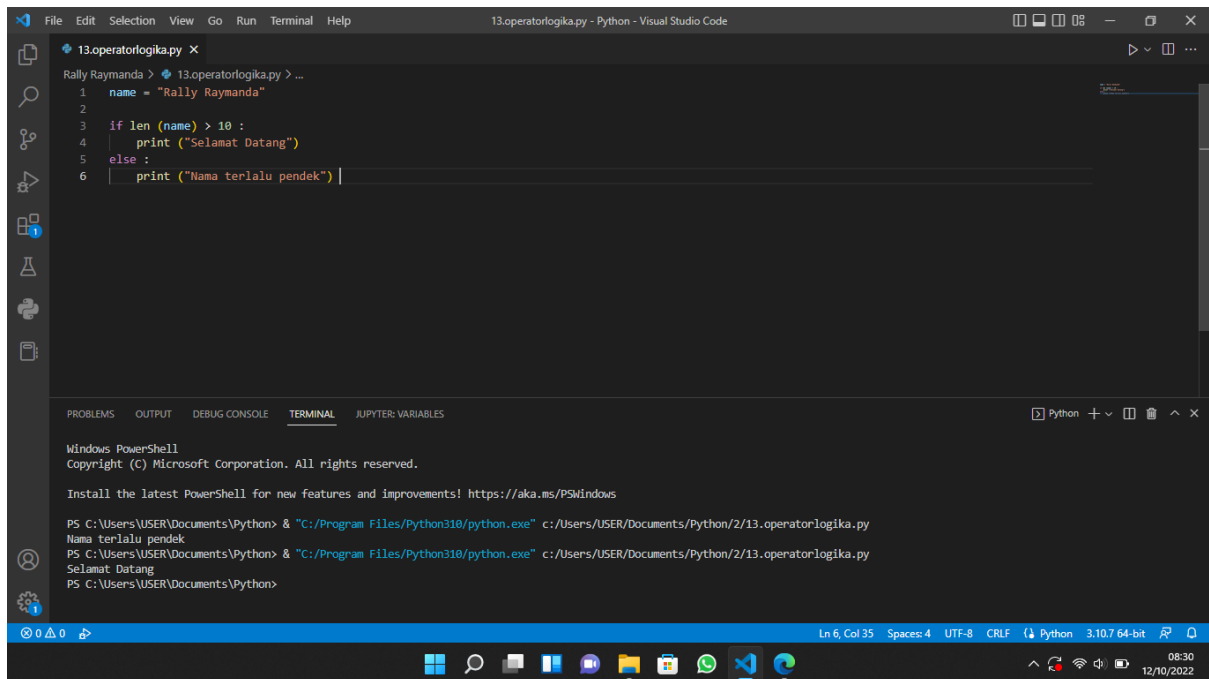
The screenshot shows a Visual Studio Code window with a file named `12.operatorperbandingan.py`. The code uses an `if-elif-else` structure to print different messages based on the value of `grade`. The terminal output shows the execution results.

```
1 #PERBANDINGAN DENGAN IF
2
3
4 grade = 5
5
6 if grade >= 8:
7     print ("Nilai kamu A")
8 elif grade >= 7:
9     print ("Nilai kamu B")
10 elif grade >= 6:
11     print ("Nilai kamu C")
12 else :
13     print ("Belajar lebih tekun lagi!!!!") |
```

Terminal Output:

```
Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows
PS C:\Users\USER\Documents\Python> & 'C:\Program Files\Python310\python.exe' 'c:\Users\USER\.vscode\extensions\ms-python.python-2022.16.0\pythonFiles\lib\python\debugpy\adapter\..\debugpy\launcher' '50864' '-.' 'c:\Users\USER\Documents\Python\Rally Raymunda\12.operatorperbandingan.py'
Nilai kamu B
PS C:\Users\USER\Documents\Python> c; cd 'c:\Users\USER\Documents\Python'; & 'C:\Program Files\Python310\python.exe' 'c:\Users\USER\.vscode\extensions\ms-python.python-2022.16.0\pythonFiles\lib\python\debugpy\adapter\..\debugpy\launcher' '50872' '-.' 'c:\Users\USER\Documents\Python\Rally Raymunda\12.operatorperbandingan.py'
Belajar lebih tekun lagi!!!!
PS C:\Users\USER\Documents\Python>
```

3. Operator logika

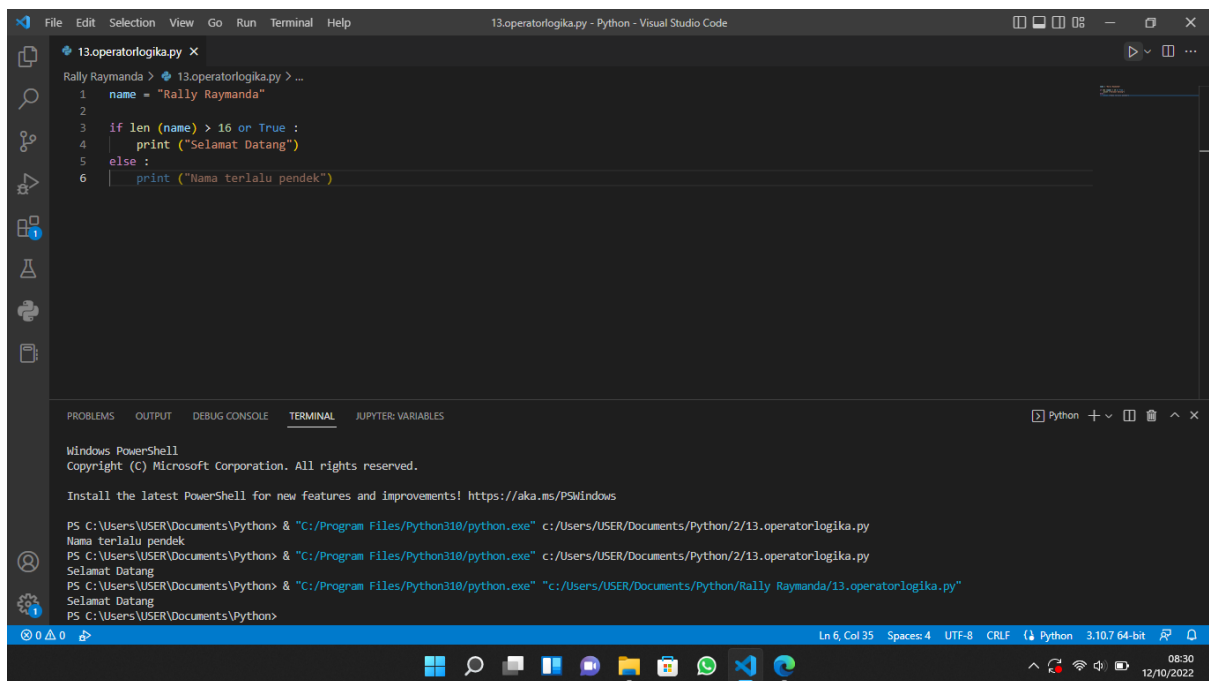


The screenshot shows the Visual Studio Code editor with a file named `13.operatorlogika.py`. The code in the editor is as follows:

```
1 name = "Rally Raymunda"
2
3 if len (name) > 10 :
4     print ("Selamat Datang")
5 else :
6     print ("Nama terlalu pendek")
```

The terminal window at the bottom shows the execution of the script using the command `python c:/Users/USER/Documents/Python/2/13.operatorlogika.py`. The output is:

```
PS C:\Users\USER\Documents\Python> "C:/Program Files/Python310/python.exe" c:/Users/USER/Documents/Python/2/13.operatorlogika.py
Nama terlalu pendek
PS C:\Users\USER\Documents\Python> "C:/Program Files/Python310/python.exe" c:/Users/USER/Documents/Python/2/13.operatorlogika.py
Selamat Datang
PS C:\Users\USER\Documents\Python>
```

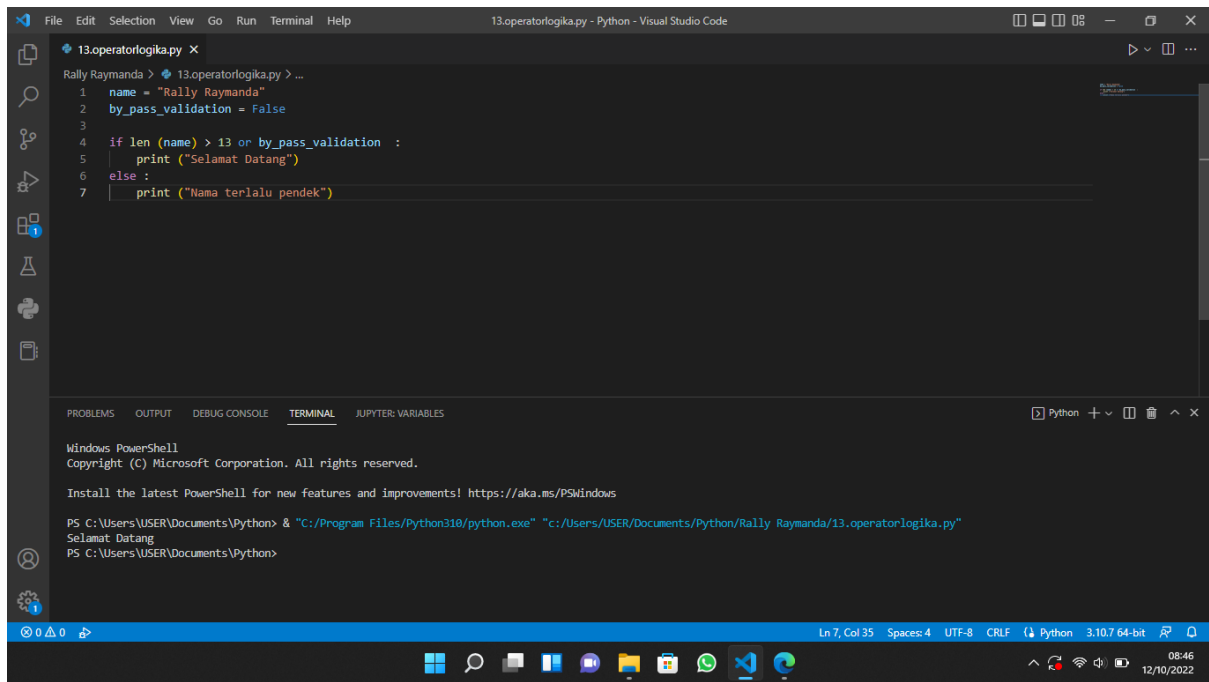


The screenshot shows the Visual Studio Code editor with the same file `13.operatorlogika.py`, but the code has been modified to use a logical OR operator:

```
1 name = "Rally Raymunda"
2
3 if len (name) > 16 or True :
4     print ("Selamat Datang")
5 else :
6     print ("Nama terlalu pendek")
```

The terminal window shows the execution of the script using the command `python c:/Users/USER/Documents/Python/Rally Raymunda/13.operatorlogika.py`. The output is:

```
PS C:\Users\USER\Documents\Python> "C:/Program Files/Python310/python.exe" c:/Users/USER/Documents/Python/2/13.operatorlogika.py
Nama terlalu pendek
PS C:\Users\USER\Documents\Python> "C:/Program Files/Python310/python.exe" c:/Users/USER/Documents/Python/2/13.operatorlogika.py
Selamat Datang
PS C:\Users\USER\Documents\Python> "C:/Program Files/Python310/python.exe" "c:/Users/USER/Documents/Python/Rally Raymunda/13.operatorlogika.py"
Selamat Datang
PS C:\Users\USER\Documents\Python>
```



The screenshot shows the Visual Studio Code interface with a Python file named `13.operatorlogika.py` open. The code defines a variable `name` as "Rally Raymanda" and `by_pass_validation` as `False`. It then uses an `if` statement to check if the length of `name` is greater than 13 or if `by_pass_validation` is `True`. If the condition is met, it prints "Selamat Datang"; otherwise, it prints "Nama terlalu pendek". The terminal at the bottom shows the command to run the script, which successfully outputs "Selamat Datang".

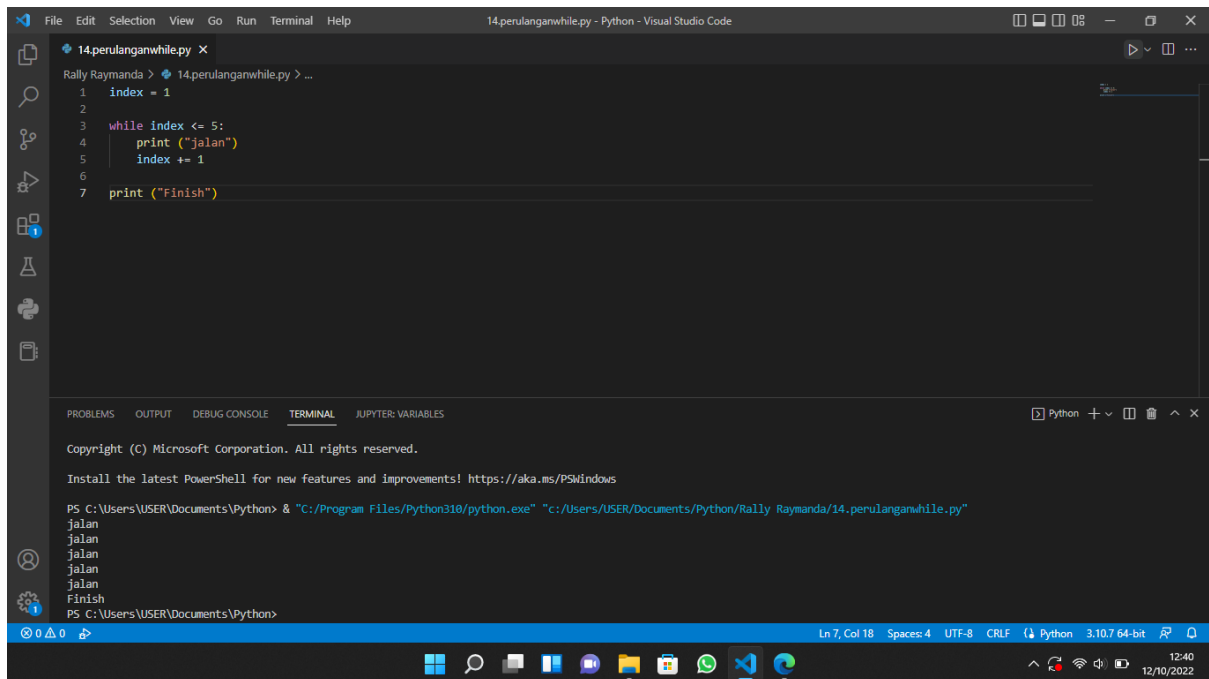
```
13.operatorlogika.py
1 name = "Rally Raymanda"
2 by_pass_validation = False
3
4 if len(name) > 13 or by_pass_validation :
5     print("Selamat Datang")
6 else :
7     print("Nama terlalu pendek")
```

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

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\USER\Documents\Python> & "C:/Program Files/Python310/python.exe" "c:/Users/USER/Documents/Python/Rally Raymanda/13.operatorlogika.py"
Selamat Datang
PS C:\Users\USER\Documents\Python>
```

4. Perulangan while



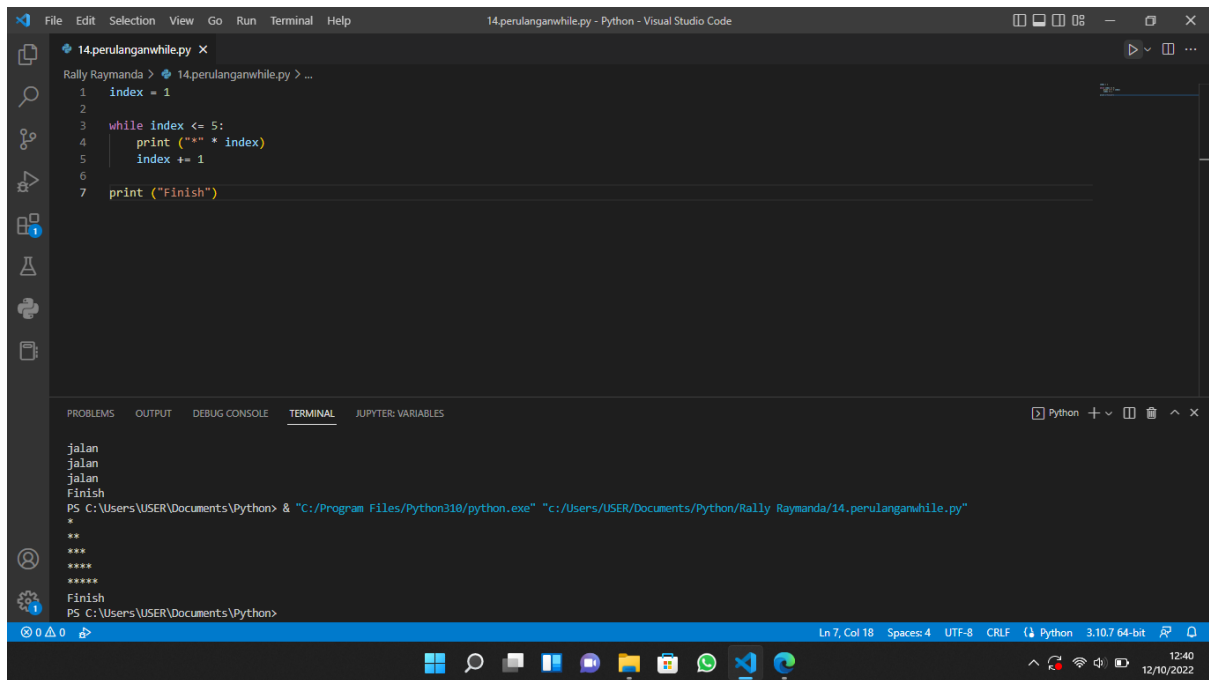
The screenshot shows the Visual Studio Code interface with a Python file named `14.perulanganwhile.py` open. The code initializes `index` to 1 and enters a `while` loop that continues as long as `index` is less than or equal to 5. Inside the loop, it prints "jalan" and increments `index` by 1. After the loop, it prints "Finish". The terminal output shows the word "jalan" printed five times followed by "Finish".

```
14.perulanganwhile.py
1 index = 1
2
3 while index <= 5:
4     print("jalan")
5     index += 1
6
7 print("Finish")
```

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

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\USER\Documents\Python> & "C:/Program Files/Python310/python.exe" "c:/Users/USER/Documents/Python/Rally Raymanda/14.perulanganwhile.py"
jalan
jalan
jalan
jalan
jalan
Finish
PS C:\Users\USER\Documents\Python>
```



The screenshot shows the Visual Studio Code editor with a file named `14.perulanganwhile.py`. The code is a Python script that uses a `while` loop to print a multiplication table for the number 5. The terminal output shows the script being executed, resulting in the output: `jalan`, `jalan`, `jalan`, `Finish`, and a series of asterisks.

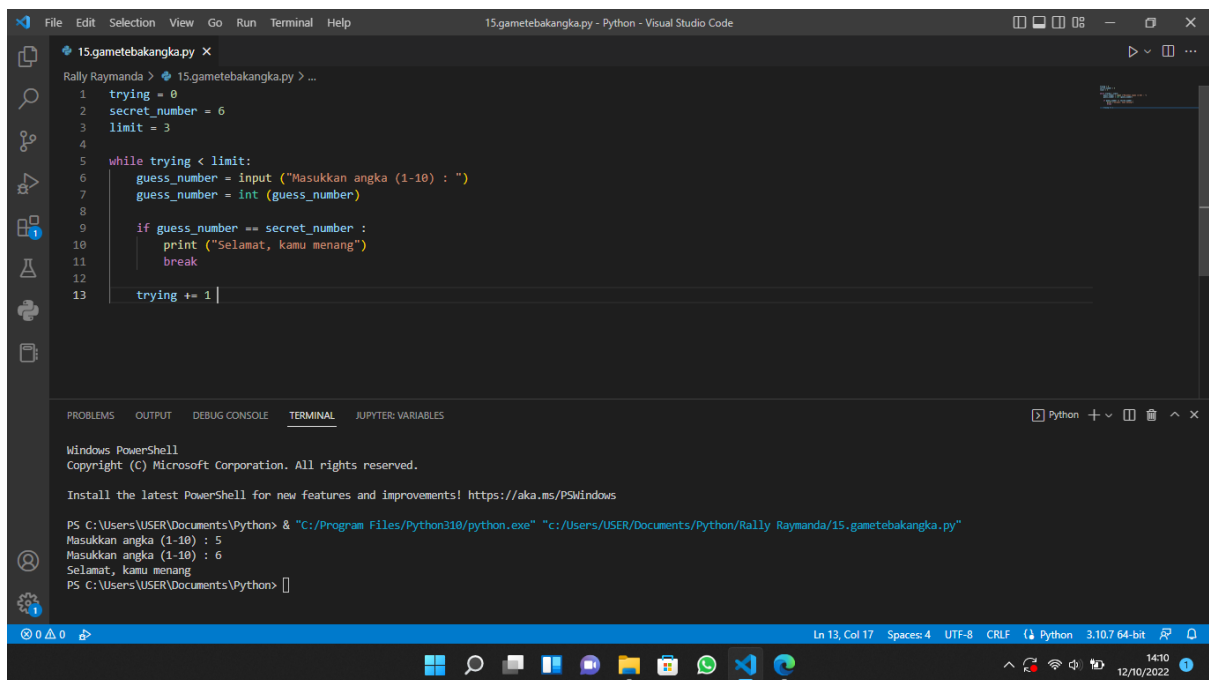
```
14.perulanganwhile.py
Rally Rayminda > 14.perulanganwhile.py > ...
1 index = 1
2
3 while index <= 5:
4     print ("*" * index)
5     index += 1
6
7 print ("Finish")
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL JUPYTER: VARIABLES

```
Python
jalan
jalan
jalan
Finish
PS C:\Users\USER\Documents\Python> & "C:/Program Files/Python310/python.exe" "c:/Users/USER/Documents/Python/Rally Raymanda/14.perulanganwhile.py"
*
**
***
****
*****
Finish
PS C:\Users\USER\Documents\Python>
```

Ln 7, Col 18 Spaces: 4 UTF-8 CRLF Python 3.10.7 64-bit

5. Game tebak angka



The screenshot shows the Visual Studio Code editor with a file named `15.gametebakangka.py`. The code is a Python script that implements a number guessing game. The terminal output shows the script being executed, resulting in the output: `Masukkan angka (1-10) : 5`, `Masukkan angka (1-10) : 6`, and `Selamat, kamu menang`.

```
15.gametebakangka.py
Rally Rayminda > 15.gametebakangka.py > ...
1 trying = 0
2 secret_number = 6
3 limit = 3
4
5 while trying < limit:
6     guess_number = input ("Masukkan angka (1-10) : ")
7     guess_number = int (guess_number)
8
9     if guess_number == secret_number :
10        print ("Selamat, kamu menang")
11        break
12
13    trying += 1
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL JUPYTER: VARIABLES

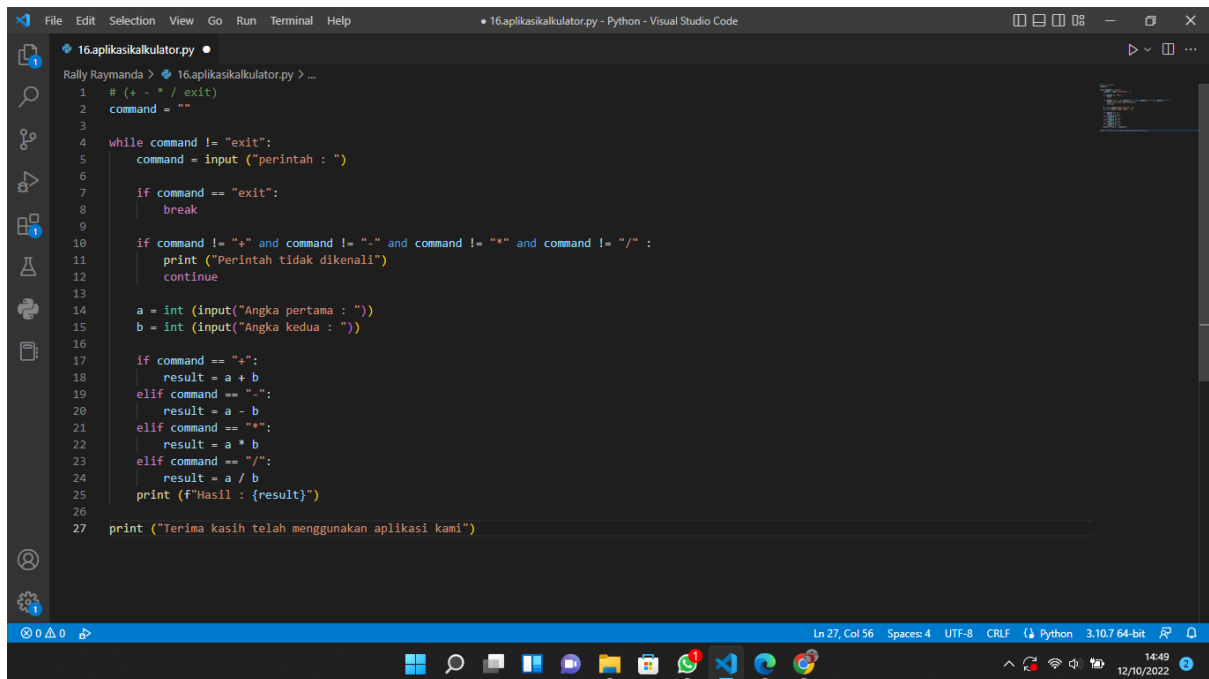
```
Python
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\USER\Documents\Python> & "C:/Program Files/Python310/python.exe" "c:/Users/USER/Documents/Python/Rally Raymanda/15.gametebakangka.py"
Masukkan angka (1-10) : 5
Masukkan angka (1-10) : 6
Selamat, kamu menang
PS C:\Users\USER\Documents\Python>
```

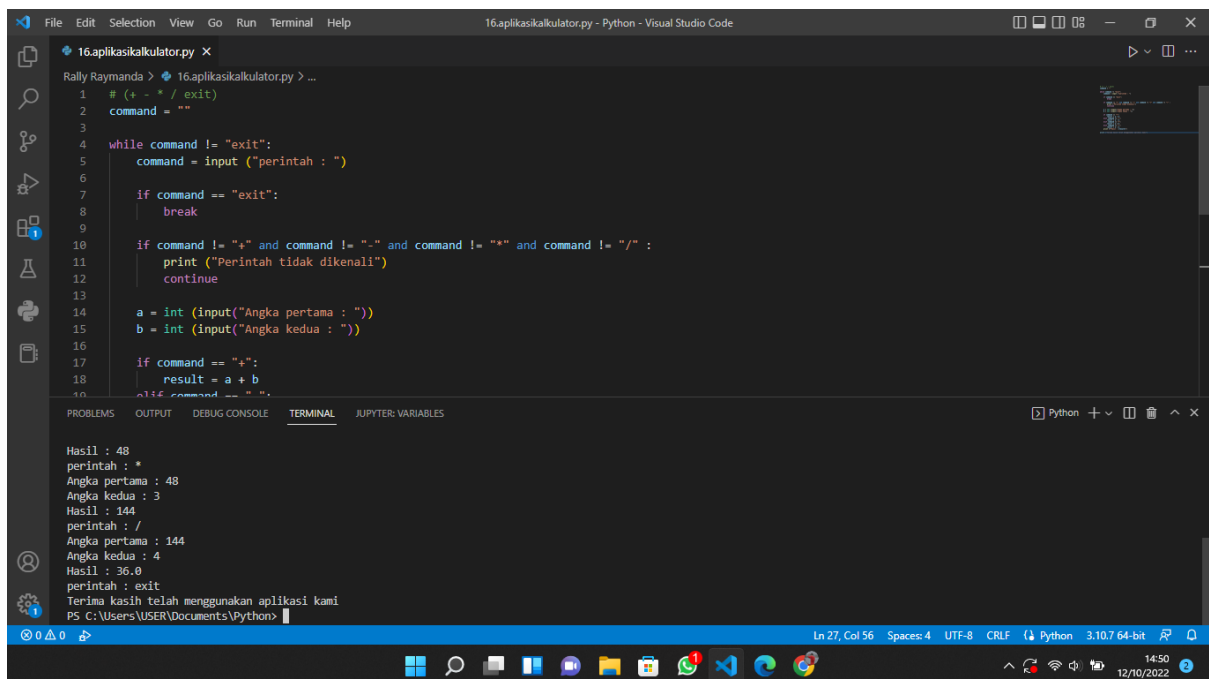
Ln 13, Col 17 Spaces: 4 UTF-8 CRLF Python 3.10.7 64-bit

6. Aplikasi kalkulator



The screenshot shows the Visual Studio Code editor with a Python file named `16.aplikasikalkulator.py`. The code is a simple calculator application that takes two numbers and a command as input. The command can be `+`, `-`, `*`, `/`, or `exit`. If the command is not recognized, it prints "Perintah tidak dikenali". The application also prints the result of the calculation and a thank you message.

```
1 # (+ - * / exit)
2 command = ""
3
4 while command != "exit":
5     command = input("perintah : ")
6
7     if command == "exit":
8         break
9
10    if command != "+" and command != "-" and command != "*" and command != "/" :
11        print ("Perintah tidak dikenali")
12        continue
13
14    a = int (input("Angka pertama : "))
15    b = int (input("Angka kedua : "))
16
17    if command == "+":
18        result = a + b
19    elif command == "-":
20        result = a - b
21    elif command == "*":
22        result = a * b
23    elif command == "/":
24        result = a / b
25    print (f"Hasil : {result}")
26
27 print ("Terima kasih telah menggunakan aplikasi kami")
```



The screenshot shows the same Visual Studio Code editor with the `16.aplikasikalkulator.py` file. The terminal window at the bottom shows the output of the program. The user has entered the command `*`, the first number `48`, and the second number `3`, resulting in `Hasil : 144`. The user then entered the command `/`, the first number `144`, and the second number `4`, resulting in `Hasil : 36.0`. Finally, the user entered the command `exit`, and the program printed the thank you message.

```
Hasil : 48
perintah : *
Angka pertama : 48
Angka kedua : 3
Hasil : 144
perintah : /
Angka pertama : 144
Angka kedua : 4
Hasil : 36.0
perintah : exit
Terima kasih telah menggunakan aplikasi kami
PS C:\Users\USER\Documents\Python>
```