

TUGAS PRAKTIKUM #4 (ARTIFICIAL INTELLIGENCE)

ANGGA DWI WIBOWO

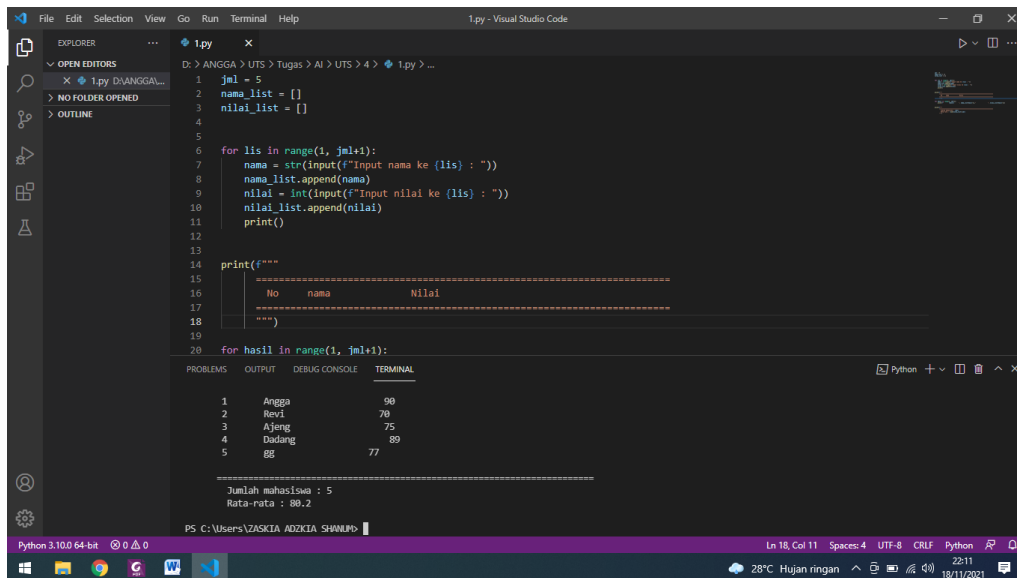
NIM. 211001123

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7.8 Praktikum #1



The screenshot shows a Visual Studio Code editor with a Python file named '1.py'. The code is as follows:

```
1 jml = 5
2 nama_list = []
3 nilai_list = []
4
5
6 for lis in range(1, jml+1):
7     nama = str(input(f"Input nama ke {lis} : "))
8     nama_list.append(nama)
9     nilai = int(input(f"Input nilai ke {lis} : "))
10    nilai_list.append(nilai)
11    print()
12
13
14 print(f"""
15 =====
16 No      nama      Nilai
17 =====
18 """)
19
20 for hasil in range(1, jml+1):
```

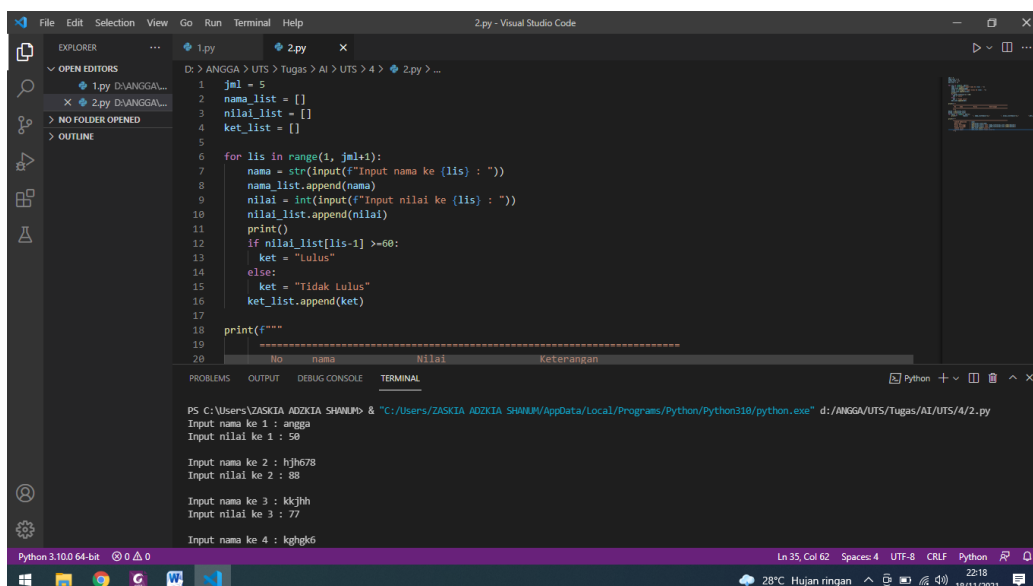
The terminal output shows the following data:

No	nama	Nilai
1	Angga	90
2	Revi	70
3	Ajeng	75
4	Dadang	80
5	BB	77

Summary statistics shown in the terminal:

```
Jumlah mahasiswa : 5
Rata-rata : 80.2
```

Praktikum #2



The screenshot shows a Visual Studio Code editor with a Python file named '2.py'. The code is as follows:

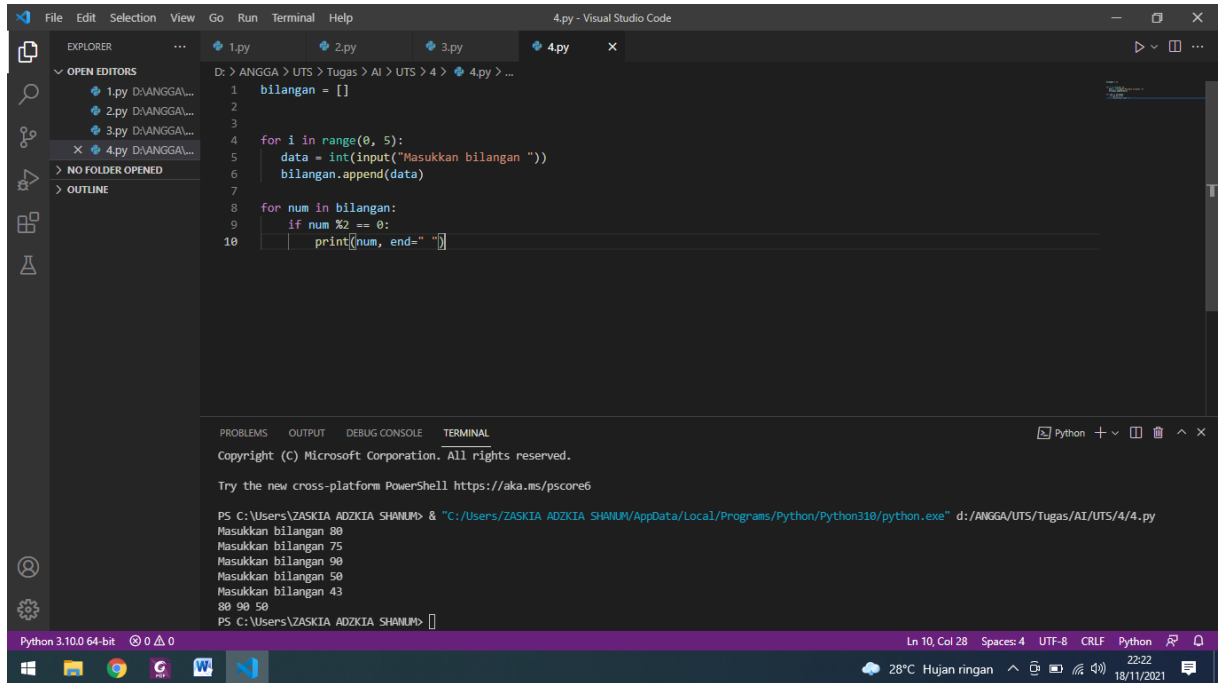
```
1 jml = 5
2 nama_list = []
3 nilai_list = []
4 ket_list = []
5
6 for lis in range(1, jml+1):
7     nama = str(input(f"Input nama ke {lis} : "))
8     nama_list.append(nama)
9     nilai = int(input(f"Input nilai ke {lis} : "))
10    nilai_list.append(nilai)
11    print()
12    if nilai_list[lis-1] >= 60:
13        ket = "Lulus"
14    else:
15        ket = "Tidak Lulus"
16    ket_list.append(ket)
17
18 print(f"""
19 =====
20 No      nama      nilai      Keterangan
21 =====
```

The terminal output shows the following data:

No	nama	nilai	Keterangan
1	angga	50	
2	hjh678	88	
3	kkjhh	77	
4	kghg6		

Praktikum #3

Praktikum #4



The screenshot shows the Visual Studio Code interface with a Python file named 4.py open. The code is a simple number guessing game. The terminal shows the execution of the script, which prompts the user to enter a number five times. The user enters 80, 75, 90, 50, and 43. The script prints the numbers entered and then prints 80 90 50.

```
1 bilangan = []
2
3
4 for i in range(0, 5):
5     data = int(input("Masukkan bilangan "))
6     bilangan.append(data)
7
8 for num in bilangan:
9     if num % 2 == 0:
10        print(num, end=" ")
```

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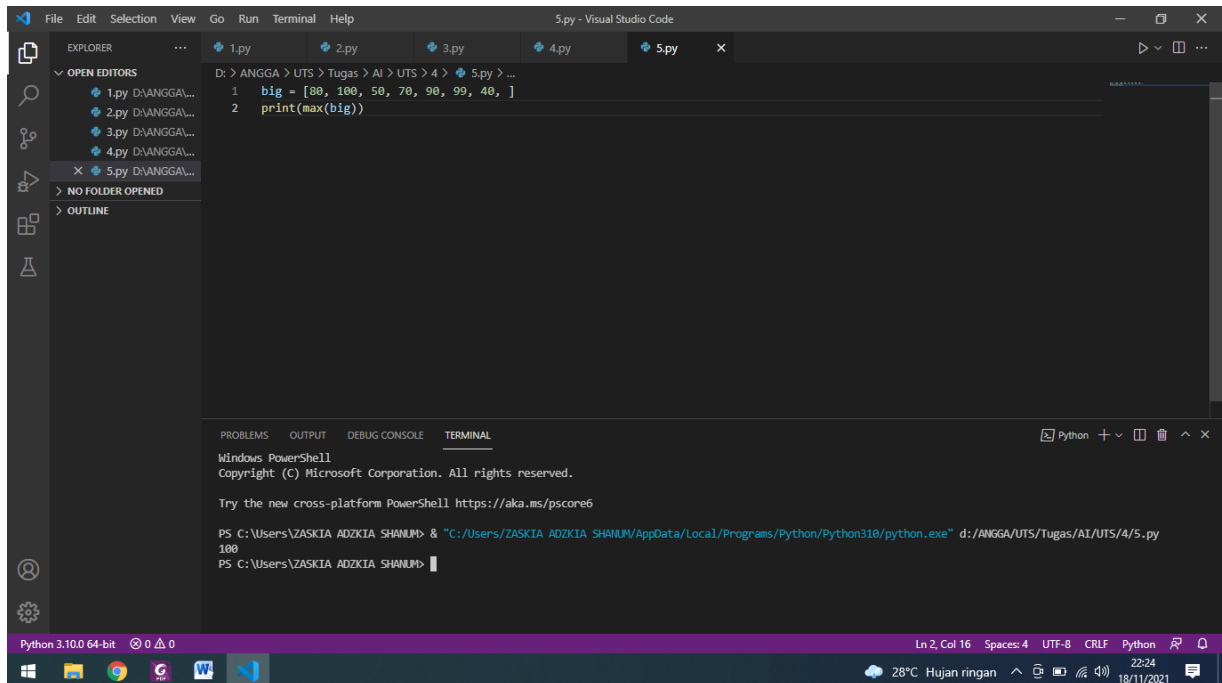
Try the new cross-platform PowerShell <https://aka.ms/pscore6>

PS C:\Users\ZASKIA ADZKIA SHANUM> & "C:/Users/ZASKIA ADZKIA SHANUM/AppData/Local/Programs/Python/Python310/python.exe" d:/ANGGA/UTS/Tugas/AI/UTS/4/4.py

Masukkan bilangan 80
Masukkan bilangan 75
Masukkan bilangan 90
Masukkan bilangan 50
Masukkan bilangan 43
80 90 50

PS C:\Users\ZASKIA ADZKIA SHANUM>

Praktikum #5



The screenshot shows the Visual Studio Code interface with a Python file named 5.py open. The code is a simple script to find the maximum value in a list. The terminal shows the execution of the script, which prints the maximum value of the list [80, 100, 50, 70, 90, 99, 40], which is 100.

```
1 big = [80, 100, 50, 70, 90, 99, 40, ]
2 print(max(big))
```

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

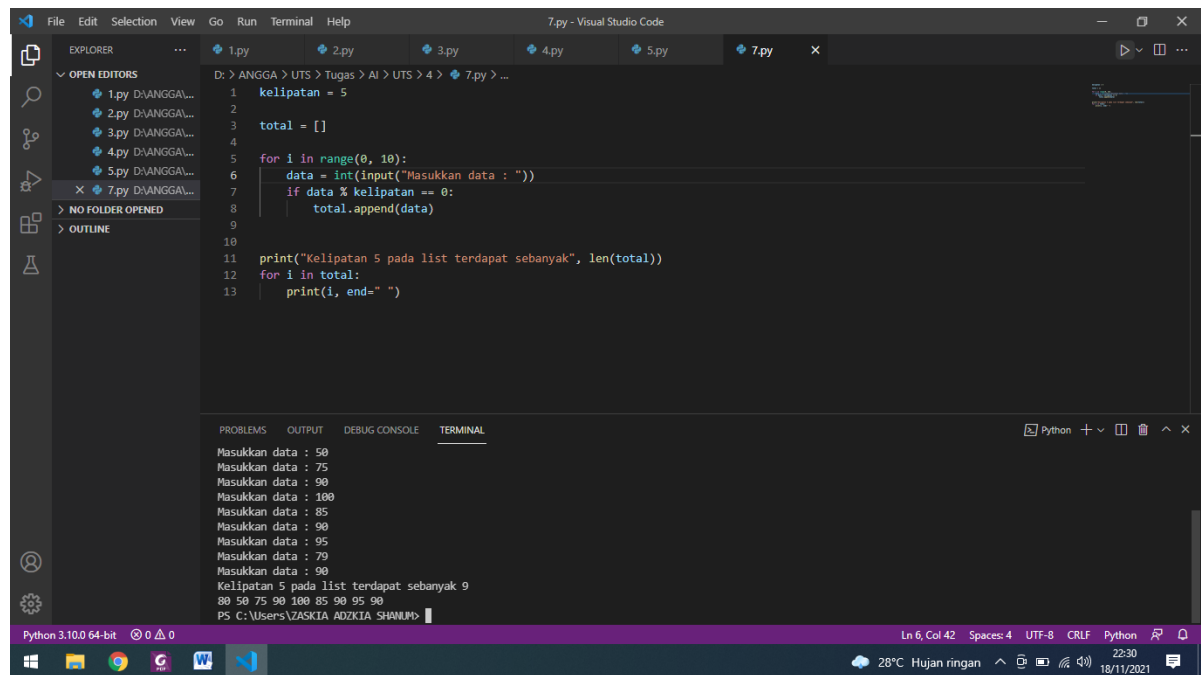
PS C:\Users\ZASKIA ADZKIA SHANUM> & "C:/Users/ZASKIA ADZKIA SHANUM/AppData/Local/Programs/Python/Python310/python.exe" d:/ANGGA/UTS/Tugas/AI/UTS/4/5.py

100

PS C:\Users\ZASKIA ADZKIA SHANUM>

Praktikum #6

Praktikum #7



The screenshot shows the Visual Studio Code interface with a Python file named 7.py. The code defines a list 'total' and a loop that prompts the user for 10 numbers. It checks if each number is a multiple of 5 and appends it to the 'total' list. Finally, it prints the count of multiples of 5 and lists them.

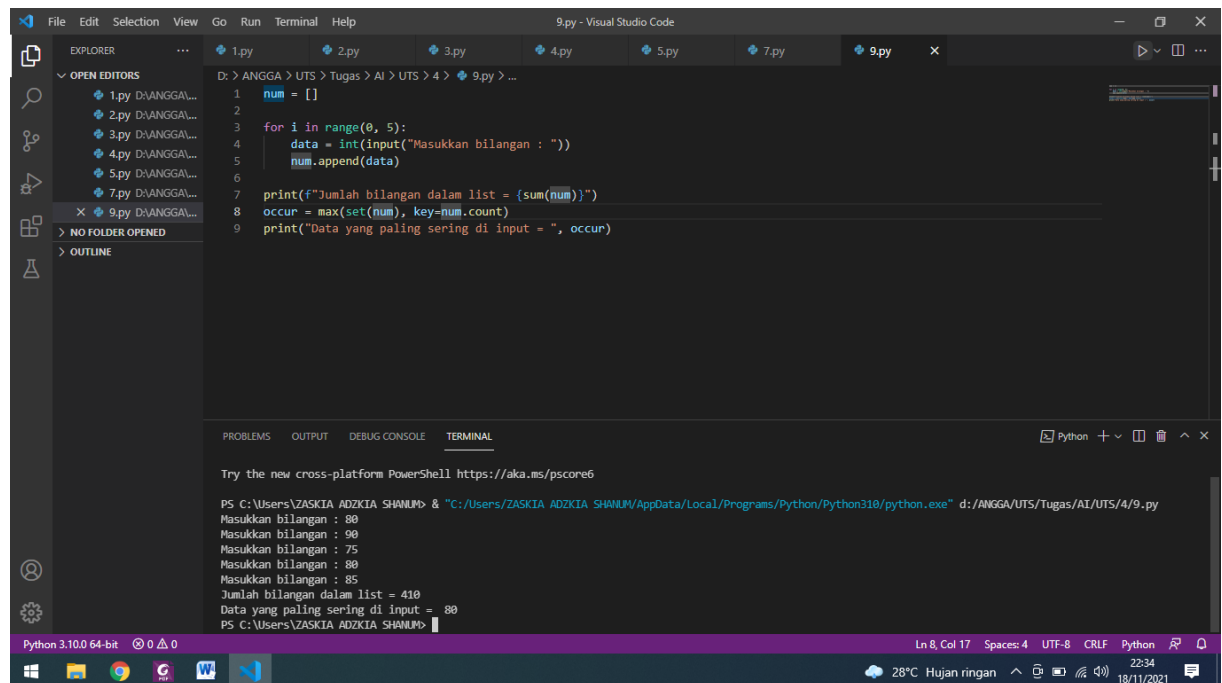
```
1 kelipatan = 5
2
3 total = []
4
5 for i in range(0, 10):
6     data = int(input("Masukkan data : "))
7     if data % kelipatan == 0:
8         total.append(data)
9
10
11 print("Kelipatan 5 pada list terdapat sebanyak", len(total))
12 for i in total:
13     print(i, end=" ")
```

The terminal output shows the execution of the script:

```
Masukkan data : 50
Masukkan data : 75
Masukkan data : 90
Masukkan data : 100
Masukkan data : 85
Masukkan data : 90
Masukkan data : 95
Masukkan data : 79
Masukkan data : 90
Kelipatan 5 pada list terdapat sebanyak 9
80 50 75 90 100 85 90 95 90
```

Praktikum #8

Praktikum #9



The screenshot shows the Visual Studio Code interface with a Python file named 9.py. The code defines a list 'num' and a loop that prompts the user for 5 numbers. It then calculates the sum of the numbers and finds the most frequent number using a set and a dictionary.

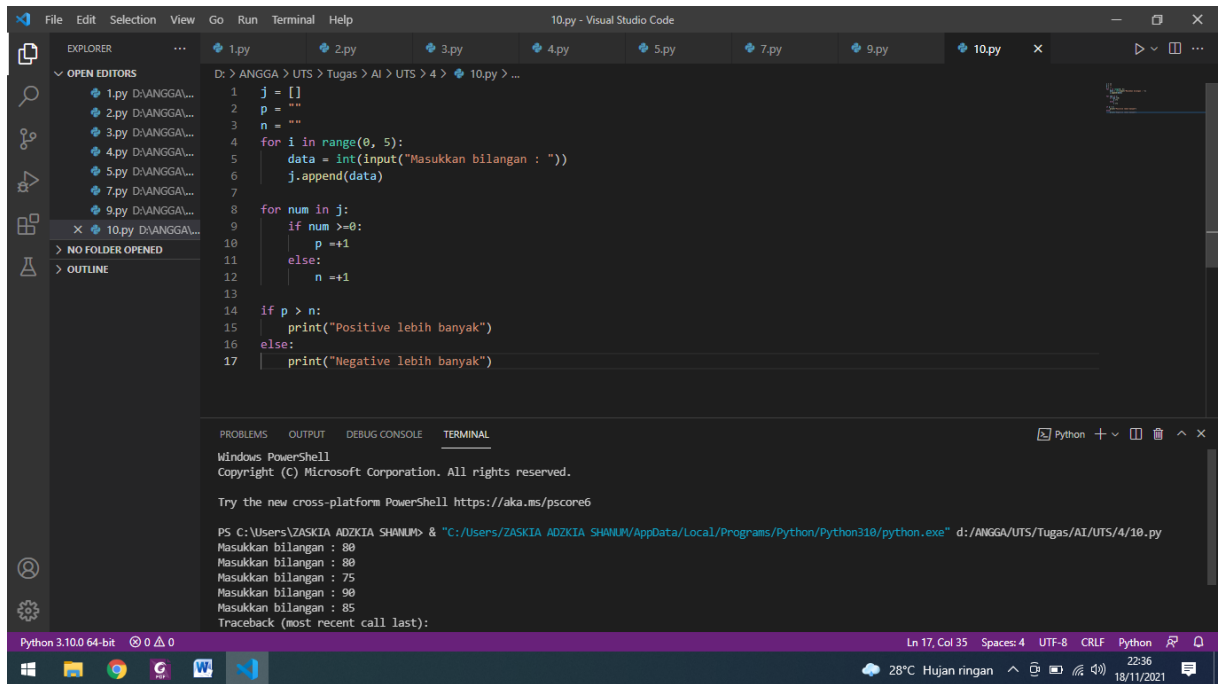
```
1 num = []
2
3 for i in range(0, 5):
4     data = int(input("Masukkan bilangan : "))
5     num.append(data)
6
7 print(f"Jumlah bilangan dalam list = {sum(num)}")
8 occur = max(set(num), key=num.count)
9 print("Data yang paling sering di input = ", occur)
```

The terminal output shows the execution of the script:

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

PS C:\Users\ZASKIA ADZKIA SHANUM> & "C:\Users\ZASKIA ADZKIA SHANUM\AppData\Local\Programs\Python\Python310\python.exe" d:/ANGGA/UTS/Tugas/AI/UTS/4/9.py
Masukkan bilangan : 80
Masukkan bilangan : 90
Masukkan bilangan : 75
Masukkan bilangan : 80
Masukkan bilangan : 85
Jumlah bilangan dalam list = 410
Data yang paling sering di input = 80
PS C:\Users\ZASKIA ADZKIA SHANUM>
```

Praktikum #10



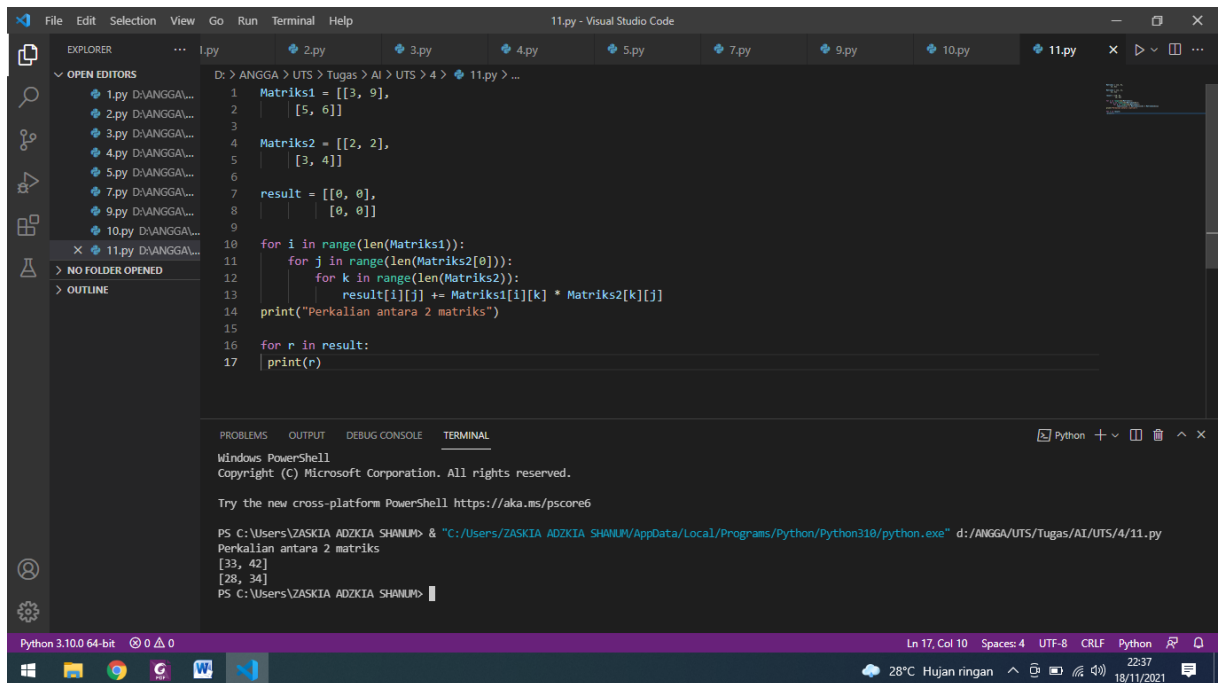
The screenshot shows the Visual Studio Code interface with a Python file named 10.py open. The code defines a list 'j' and a variable 'p'. It uses a loop to take input from the user and append it to the list. Then, it checks if the input is greater than the length of the list. If so, it prints "Positive lebih banyak". Otherwise, it prints "Negative lebih banyak". The terminal shows the execution of the script, with input values 80, 80, 75, 90, and 85, and the corresponding output messages.

```
1 j = []
2 p = ""
3 n = ""
4 for i in range(0, 5):
5     data = int(input("Masukkan bilangan : "))
6     j.append(data)
7
8 for num in j:
9     if num >= 0:
10        p += 1
11    else:
12        n += 1
13
14 if p > n:
15     print("Positive lebih banyak")
16 else:
17     print("Negative lebih banyak")
```

Terminal Output:

```
PS C:\Users\ZASKIA ADZKIA SHAMUD > "C:\Users\ZASKIA ADZKIA SHAMUD\AppData\Local\Programs\Python\Python310\python.exe" d:/ANGGA/UTS/Tugas/AI/UTS/4/10.py
Masukkan bilangan : 80
Masukkan bilangan : 80
Masukkan bilangan : 75
Masukkan bilangan : 90
Masukkan bilangan : 85
Traceback (most recent call last):
```

Praktikum #11



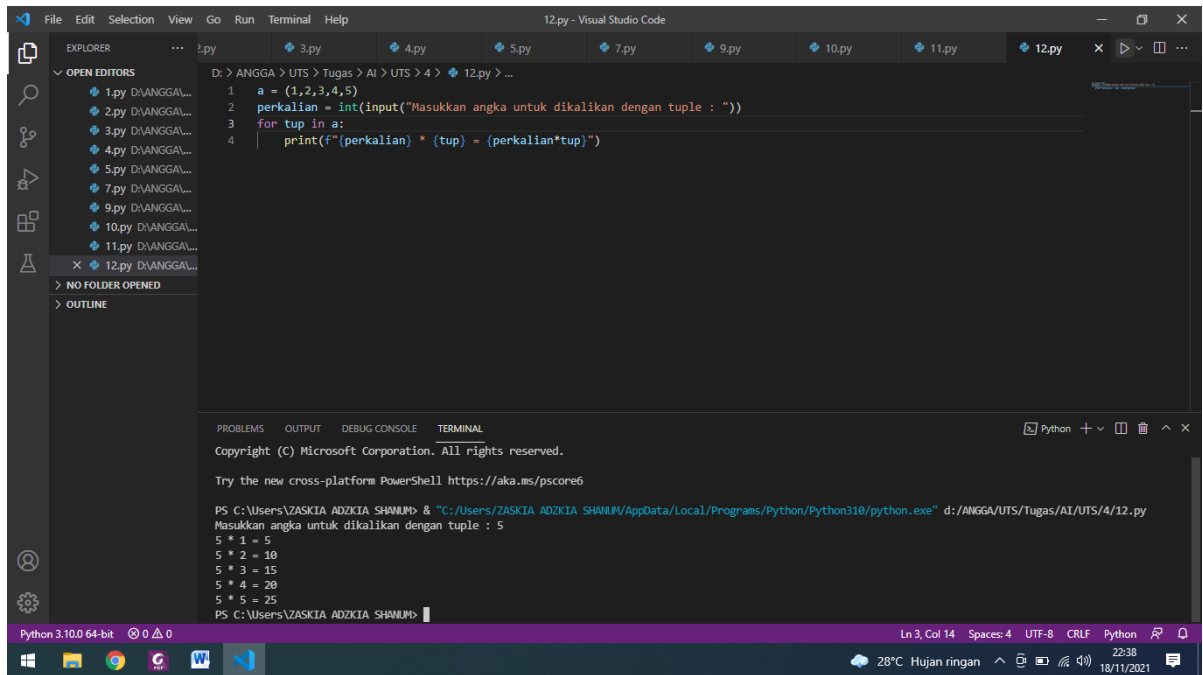
The screenshot shows the Visual Studio Code interface with a Python file named 11.py open. The code defines two matrices, 'Matriks1' and 'Matriks2', and a result matrix 'result'. It uses nested loops to calculate the product of the two matrices. The terminal shows the execution of the script, with the output of the matrix multiplication.

```
1 Matriks1 = [[3, 9],
2             [5, 6]]
3
4 Matriks2 = [[2, 2],
5             [3, 4]]
6
7 result = [[0, 0],
8           [0, 0]]
9
10 for i in range(len(Matriks1)):
11     for j in range(len(Matriks2[0])):
12         for k in range(len(Matriks2)):
13             result[i][j] += Matriks1[i][k] * Matriks2[k][j]
14 print("Perkalian antara 2 matriks")
15
16 for r in result:
17     print(r)
```

Terminal Output:

```
PS C:\Users\ZASKIA ADZKIA SHAMUD > "C:\Users\ZASKIA ADZKIA SHAMUD\AppData\Local\Programs\Python\Python310\python.exe" d:/ANGGA/UTS/Tugas/AI/UTS/4/11.py
Perkalian antara 2 matriks
[33, 42]
[28, 34]
```

Praktikum #12



The screenshot shows the Visual Studio Code interface with a Python file named 12.py open. The code defines a tuple `a = (1, 2, 3, 4, 5)` and prompts the user to input a number to multiply the tuple. The terminal shows the program running and calculating the products of the tuple with the input values 1 through 5.

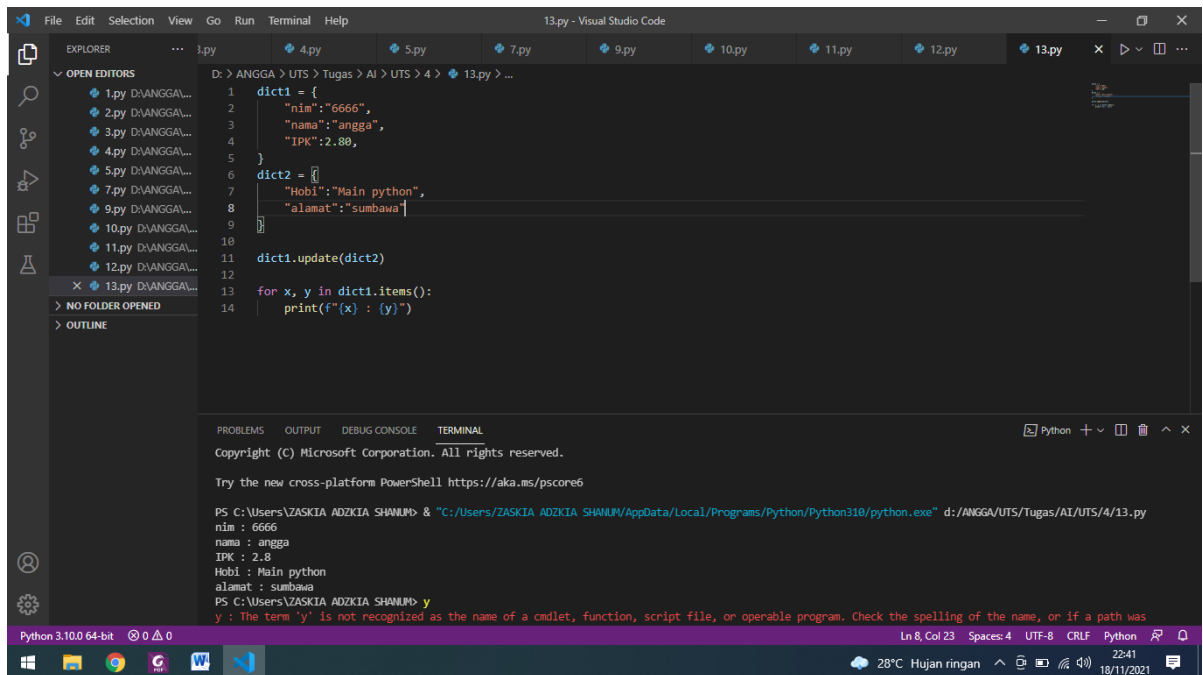
```
D:\> ANGGA > UTS > Tugas > AI > UTS > 4 > 12.py > ...
1 a = (1,2,3,4,5)
2 perkalian = int(input("Masukkan angka untuk dikalikan dengan tuple : "))
3 for tup in a:
4     print(f'{perkalian} * {tup} = {perkalian*tup}')
```

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PS C:\Users\ZASKIA ADZKIA SHANMUP> & "C:/Users/ZASKIA ADZKIA SHANMUP/AppData/Local/Programs/Python/Python310/python.exe" d:/ANGGA/UTS/Tugas/AI/UTS/4/12.py
Masukkan angka untuk dikalikan dengan tuple : 5
5 * 1 = 5
5 * 2 = 10
5 * 3 = 15
5 * 4 = 20
5 * 5 = 25
PS C:\Users\ZASKIA ADZKIA SHANMUP>

Praktikum #13



The screenshot shows the Visual Studio Code interface with a Python file named 13.py open. The code defines two dictionaries, `dict1` and `dict2`, and updates `dict1` with the contents of `dict2`. The terminal shows the program running and displaying the contents of the updated dictionary.

```
D:\> ANGGA > UTS > Tugas > AI > UTS > 4 > 13.py > ...
1 dict1 = {
2     "nim": "6666",
3     "nama": "angga",
4     "IPK": 2.80,
5 }
6 dict2 = {
7     "Hobi": "Main python",
8     "alamat": "sumbawa"
9 }
10
11 dict1.update(dict2)
12
13 for x, y in dict1.items():
14     print(f'{x} : {y}')
```

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PS C:\Users\ZASKIA ADZKIA SHANMUP> & "C:/Users/ZASKIA ADZKIA SHANMUP/AppData/Local/Programs/Python/Python310/python.exe" d:/ANGGA/UTS/Tugas/AI/UTS/4/13.py
nim : 6666
nama : angga
IPK : 2.8
Hobi : Main python
alamat : sumbawa
PS C:\Users\ZASKIA ADZKIA SHANMUP> y
y : The term 'y' is not recognized as the name of a cmdlet, function, script file, or operable program. Check the spelling of the name, or if a path was