

TUGAS PRAKTIKUM #5 (ARTIFICIAL INTELLIGENCE)

ANGGA DWI WIBOWO

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Fakultas Rekayasa Sistem - Prodi Teknik Informatika

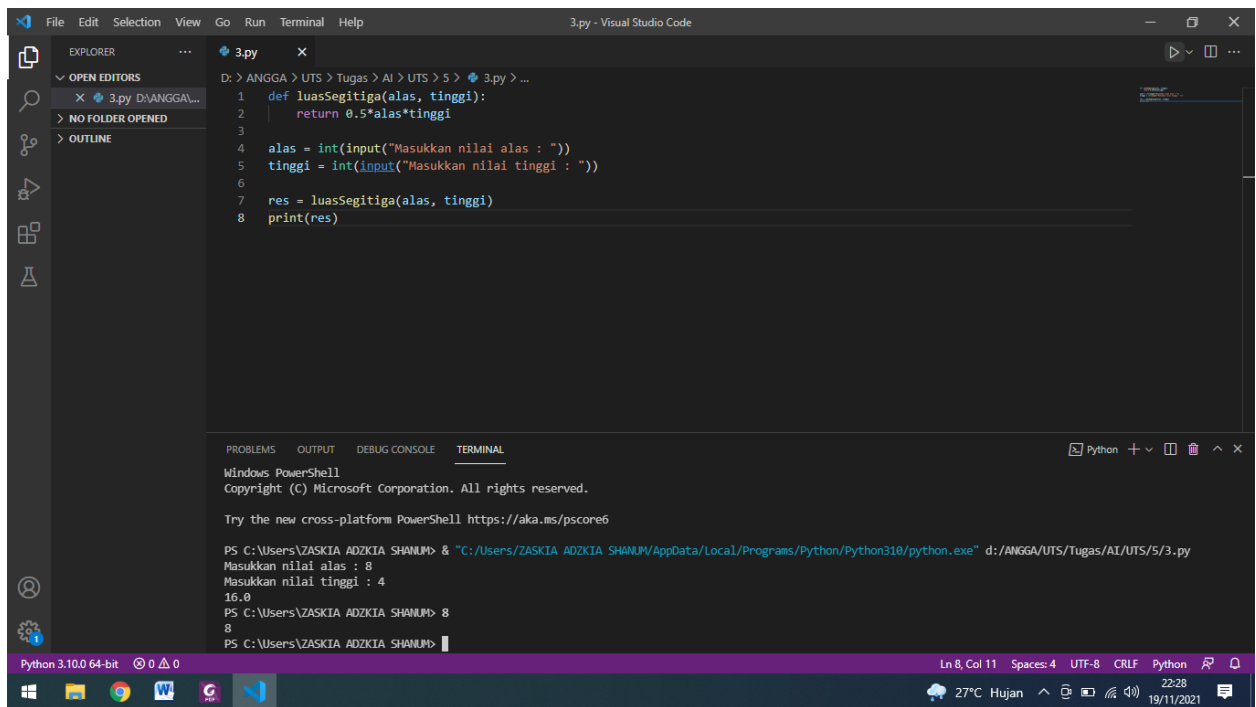
Universitas Teknologi Sumbawa

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8.6 Praktikum #1

Praktikum #2

Praktikum #3



The screenshot displays the Visual Studio Code interface. The Explorer panel on the left shows the file structure with '3.py' selected. The main editor window shows the following Python code:

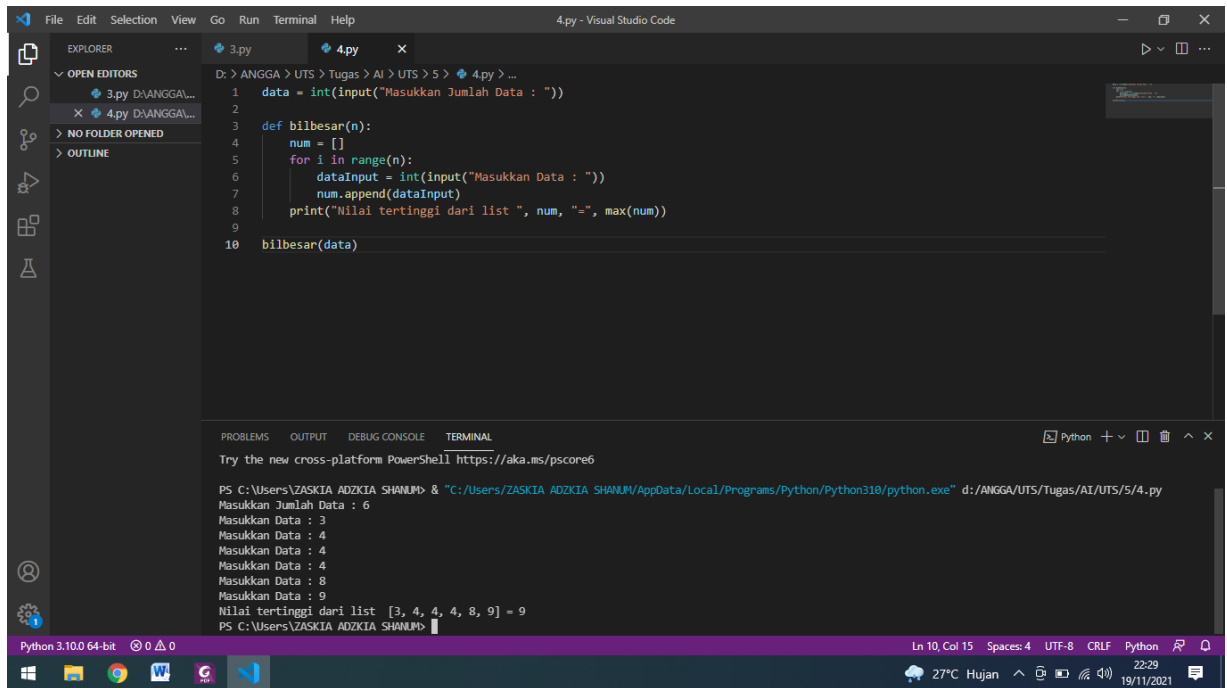
```
1 def luasSegitiga(alas, tinggi):  
2     return 0.5*alas*tinggi  
3  
4 alas = int(input("Masukkan nilai alas : "))  
5 tinggi = int(input("Masukkan nilai tinggi : "))  
6  
7 res = luasSegitiga(alas, tinggi)  
8 print(res)
```

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\ZASKIA ADZKIA SHANUM> & "C:\Users\ZASKIA ADZKIA SHANUM\AppData\Local\Programs\Python\Python310\python.exe" d:/ANGGA/UTS/Tugas/AI/UTS/5/3.py  
Masukkan nilai alas : 8  
Masukkan nilai tinggi : 4  
16.0  
PS C:\Users\ZASKIA ADZKIA SHANUM> 8  
PS C:\Users\ZASKIA ADZKIA SHANUM>
```

The status bar at the bottom indicates the file is '3.py', the Python version is 'Python 3.10.0 64-bit', and the encoding is 'UTF-8'.

Praktikum #4

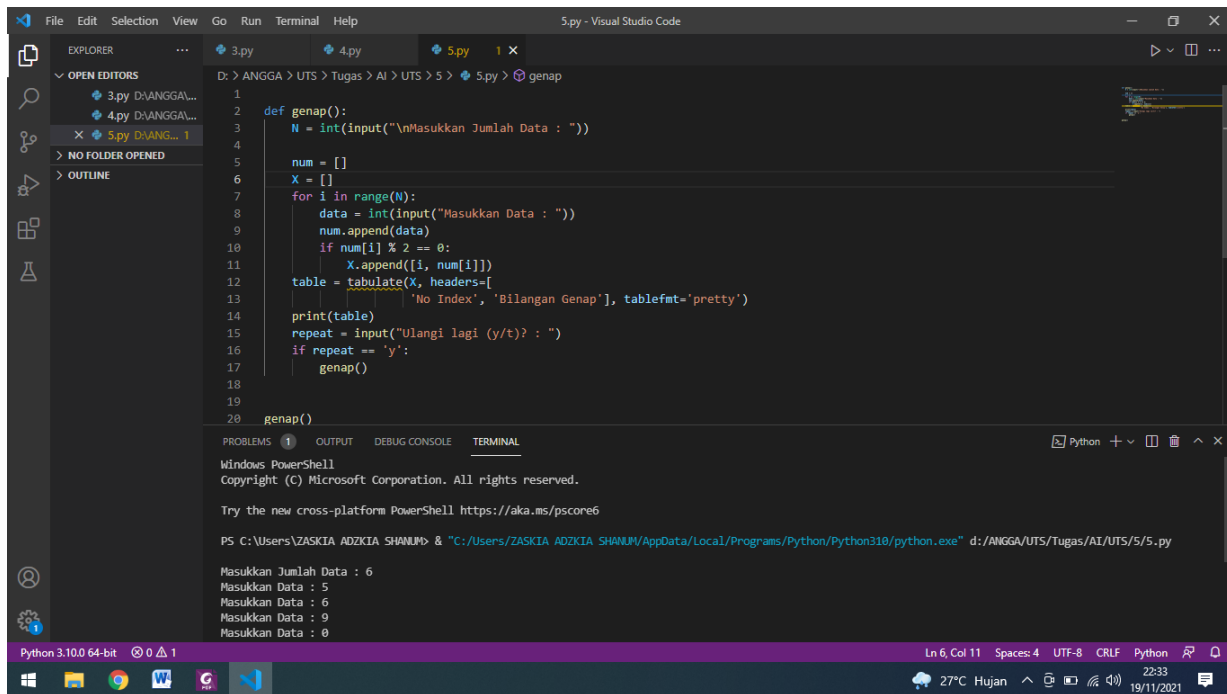


The screenshot shows the Visual Studio Code interface with a Python file named `4.py` open. The code defines a function `bilbesar` that takes a number `n` and a list `num` as input. It iterates through the range `1 to n`, prompting the user to enter data, which is then appended to the list. Finally, it prints the maximum value of the list.

```
1 data = int(input("Masukkan Jumlah Data : "))
2
3 def bilbesar(n):
4     num = []
5     for i in range(n):
6         dataInput = int(input("Masukkan Data : "))
7         num.append(dataInput)
8     print("Nilai tertinggi dari list ", num, "=", max(num))
9
10 bilbesar(data)
```

The terminal output shows the execution of the script, where the user enters 6 for the number of data points and then enters the values 3, 4, 4, 4, 8, and 9. The final output is: `Nilai tertinggi dari list [3, 4, 4, 4, 8, 9] = 9`.

Praktikum #5

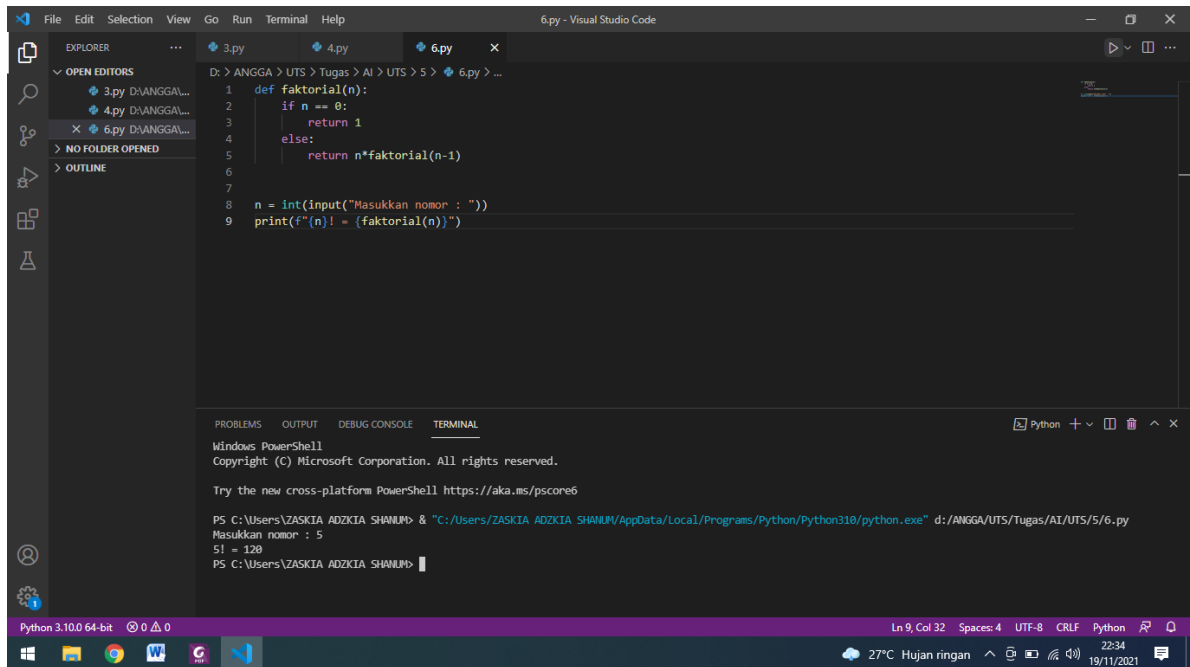


The screenshot shows the Visual Studio Code interface with a Python file named `5.py` open. The code defines a function `genap` that takes a number `N` as input. It iterates through the range `1 to N`, prompting the user to enter data, which is then appended to a list. The list is then formatted into a table with headers `'No Index'` and `'Bilangan Genap'`. The function also prompts the user to repeat the process.

```
1 def genap():
2     N = int(input("\nMasukkan Jumlah Data : "))
3
4     num = []
5     X = []
6     for i in range(N):
7         data = int(input("Masukkan Data : "))
8         num.append(data)
9         if num[i] % 2 == 0:
10            X.append([i, num[i]])
11     table = tabulate(X, headers=[
12         'No Index', 'Bilangan Genap'], tablefmt='pretty')
13     print(table)
14     repeat = input("Ulangi lagi (y/t)? : ")
15     if repeat == 'y':
16         genap()
17
18 genap()
```

The terminal output shows the execution of the script, where the user enters 6 for the number of data points and then enters the values 5, 6, 9, and 0. The final output is a table with 4 rows and 2 columns, showing the index and the even numbers.

Praktikum #6



The screenshot shows the Visual Studio Code interface with a Python file named 6.py open. The code defines a recursive factorial function and prompts the user for a number. The terminal window shows the command prompt running the script and displaying the output for the input 5.

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

EXPLORER
  3.py
  4.py
  6.py
  NO FOLDER OPENED
  OUTLINE

OPEN EDITORS
  3.py
  4.py
  6.py

D:\ANGGA > UTS > Tugas > AI > UTS > 5 > 6.py > ...
1 def faktorial(n):
2     if n == 0:
3         return 1
4     else:
5         return n*faktorial(n-1)
6
7
8 n = int(input("Masukkan nomor : "))
9 print(f"{n}! = {faktorial(n)}")

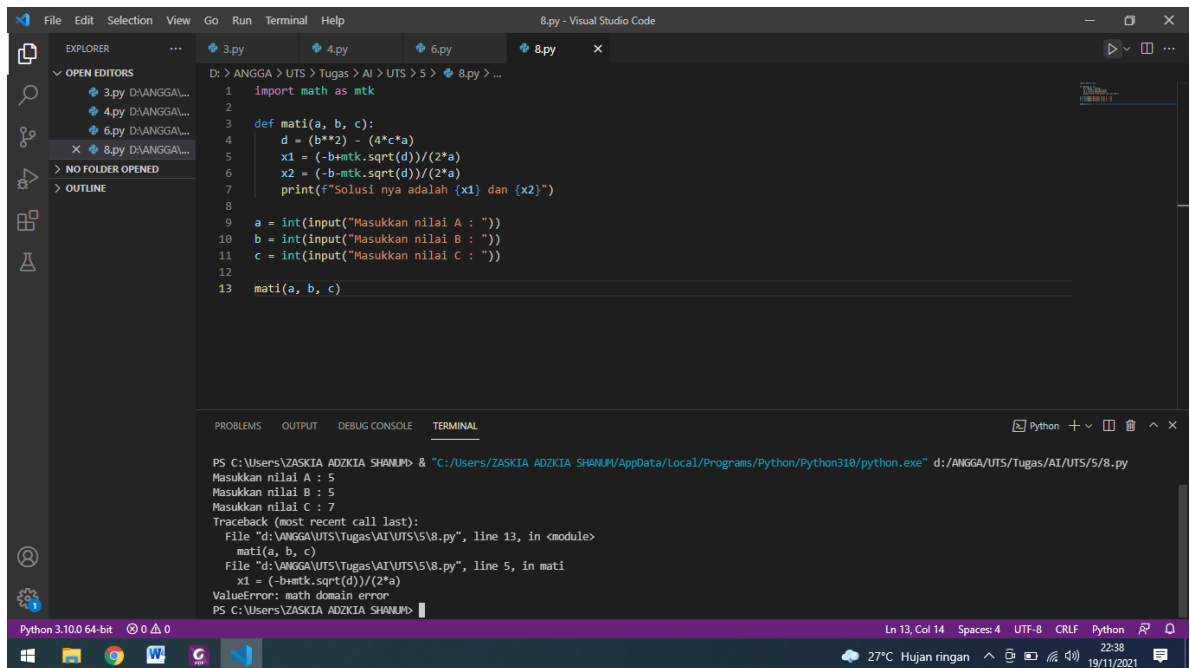
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

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

PS C:\Users\ZASKIA ADZKIA SHAMUD> & "C:/Users/ZASKIA ADZKIA SHAMUD/AppData/Local/Programs/Python/Python318/python.exe" d:/ANGGA/UTS/Tugas/AI/UTS/5/6.py
Masukkan nomor : 5
5! = 120
PS C:\Users\ZASKIA ADZKIA SHAMUD>
```

Praktikum #7

Praktikum #8



The screenshot shows the Visual Studio Code interface with a Python file named 8.py open. The code defines a function to solve quadratic equations. The terminal window shows the command prompt running the script, inputting values for a, b, and c, and then displaying a traceback error message.

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

EXPLORER
  3.py
  4.py
  6.py
  8.py
  NO FOLDER OPENED
  OUTLINE

OPEN EDITORS
  3.py
  4.py
  6.py
  8.py

D:\ANGGA > UTS > Tugas > AI > UTS > 5 > 8.py > ...
1 import math as mtk
2
3 def mati(a, b, c):
4     d = (b**2) - (4*c*a)
5     x1 = (-b+mtk.sqrt(d))/(2*a)
6     x2 = (-b-mtk.sqrt(d))/(2*a)
7     print(f"Solusi nya adalah {x1} dan {x2}")
8
9 a = int(input("Masukkan nilai A : "))
10 b = int(input("Masukkan nilai B : "))
11 c = int(input("Masukkan nilai C : "))
12
13 mati(a, b, c)

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
PS C:\Users\ZASKIA ADZKIA SHAMUD> & "C:/Users/ZASKIA ADZKIA SHAMUD/AppData/Local/Programs/Python/Python318/python.exe" d:/ANGGA/UTS/Tugas/AI/UTS/5/8.py
Masukkan nilai A : 5
Masukkan nilai B : 5
Masukkan nilai C : 7
Traceback (most recent call last):
  File "d:/ANGGA/UTS/Tugas/AI/UTS/5/8.py", line 13, in <module>
    mati(a, b, c)
  File "d:/ANGGA/UTS/Tugas/AI/UTS/5/8.py", line 5, in mati
    x1 = (-b+mtk.sqrt(d))/(2*a)
ValueError: math domain error
PS C:\Users\ZASKIA ADZKIA SHAMUD>
```