

# LAPORAN PRAKTIKUM

PEMROGRAMAN BERORIENTASI OBJEK LANJUT

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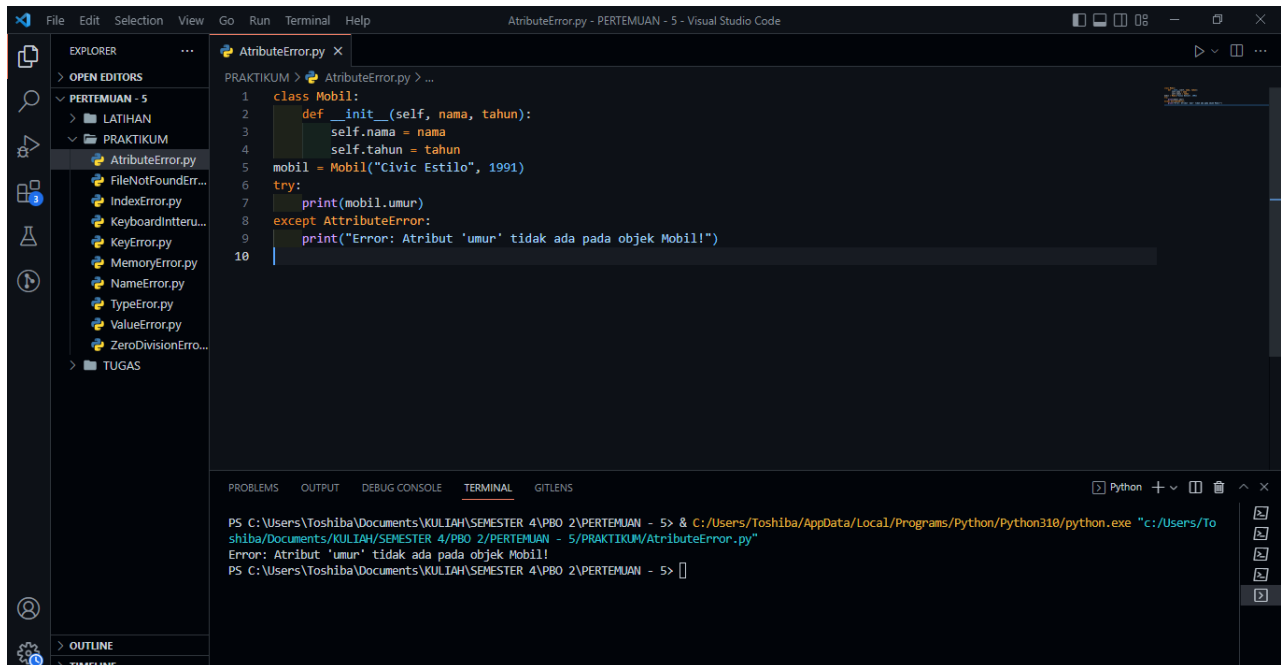
## Praktikum 5

Berikan masing-masing 1 contoh Exception Handling dengan contoh yang berbeda dari contoh yang sudah diberikan.

**Attribute Error :**

```
class Mobil:
    def __init__(self, nama, tahun):
        self.nama = nama
        self.tahun = tahun
mobil = Mobil("Civic Estilo", 1991)
try:
    print(mobil.umur)
except AttributeError:
    print("Error: Atribut 'umur' tidak ada pada objek Mobil!")
```

## Output



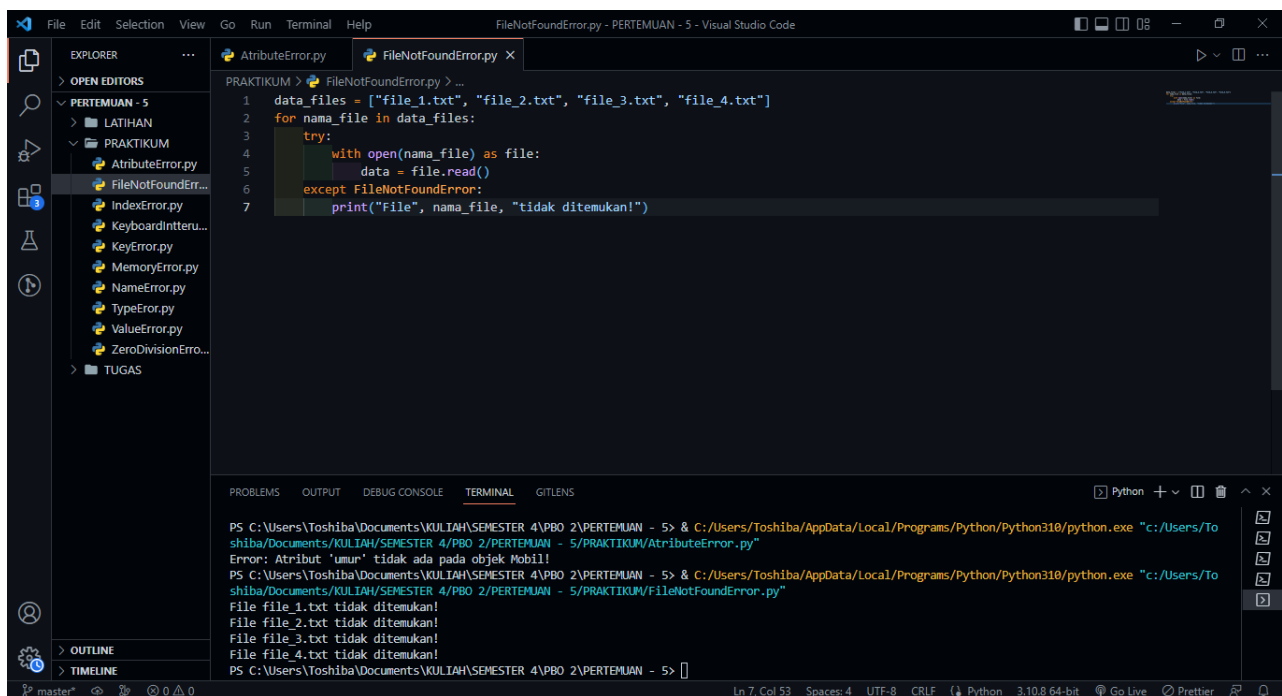
The screenshot shows the Visual Studio Code interface. The Explorer panel on the left displays a file tree with folders 'PERTEMUAN - 5', 'LATIHAN', and 'PRAKTIKUM'. Under 'PRAKTIKUM', the file 'AttributeError.py' is selected. The main editor shows the Python code from the previous block. The TERMINAL panel at the bottom shows the command prompt output:

```
PS C:\Users\Toshiba\Documents\KULIAH\SEMESTER 4\PBO 2\PERTEMUAN - 5> & C:/Users/Toshiba/AppData/Local/Programs/Python/Python310/python.exe "c:/Users/Toshiba/Documents/KULIAH/SEMESTER 4/PBO 2/PERTEMUAN - 5/PRAKTIKUM/AttributeError.py"
Error: Atribut 'umur' tidak ada pada objek Mobil!
PS C:\Users\Toshiba\Documents\KULIAH\SEMESTER 4\PBO 2\PERTEMUAN - 5>
```

## File Not Found Error :

```
data_files = ["file_1.txt", "file_2.txt", "file_3.txt", "file_4.txt"]
for nama_file in data_files:
    try:
        with open(nama_file) as file:
            data = file.read()
    except FileNotFoundError:
        print("File", nama_file, "tidak ditemukan!")
```

## Output



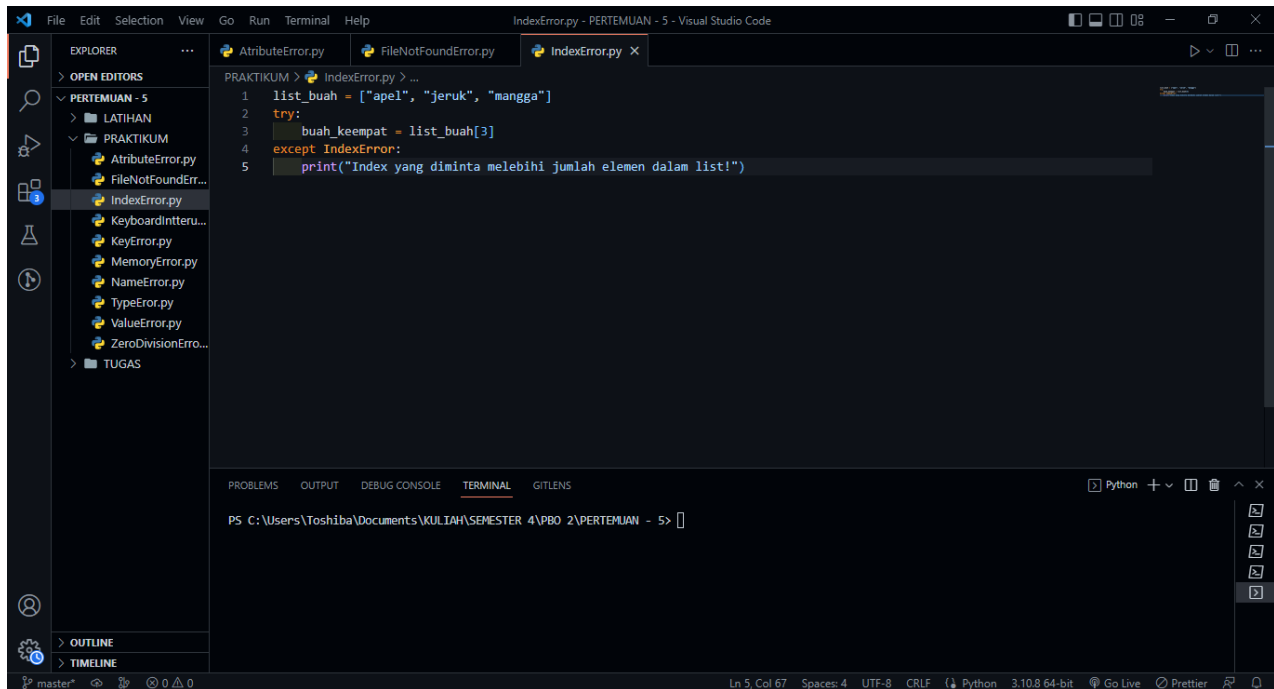
The screenshot shows the Visual Studio Code interface with a Python script named `FileNotFoundError.py` open in the editor. The script defines a list of file names and iterates through them, attempting to open each file. If a file is not found, it prints a message. The terminal output shows the execution of the script, displaying the error message for each file that was not found.

```
PS C:\Users\Toshiba\Documents\KULIAH\SEMESTER 4\PBO 2\PERTEMUAN - 5> & C:/Users/Toshiba/AppData/Local/Programs/Python/Python310/python.exe "c:/Users/Toshiba/Documents/KULIAH/SEMESTER 4/PBO 2/PERTEMUAN - 5/PRAKTIKUM/AttributeError.py"
Error: Atribut 'umur' tidak ada pada objek Mobil!
PS C:\Users\Toshiba\Documents\KULIAH\SEMESTER 4\PBO 2\PERTEMUAN - 5> & C:/Users/Toshiba/AppData/Local/Programs/Python/Python310/python.exe "c:/Users/Toshiba/Documents/KULIAH/SEMESTER 4/PBO 2/PERTEMUAN - 5/PRAKTIKUM/FileNotFoundError.py"
File file_1.txt tidak ditemukan!
File file_2.txt tidak ditemukan!
File file_3.txt tidak ditemukan!
File file_4.txt tidak ditemukan!
PS C:\Users\Toshiba\Documents\KULIAH\SEMESTER 4\PBO 2\PERTEMUAN - 5>
```

## Index Error :

```
list_buah = ["apel", "jeruk", "mangga"]
try:
    buah_keempat = list_buah[3]
except IndexError:
    print("Index yang diminta melebihi jumlah elemen dalam list!")
```

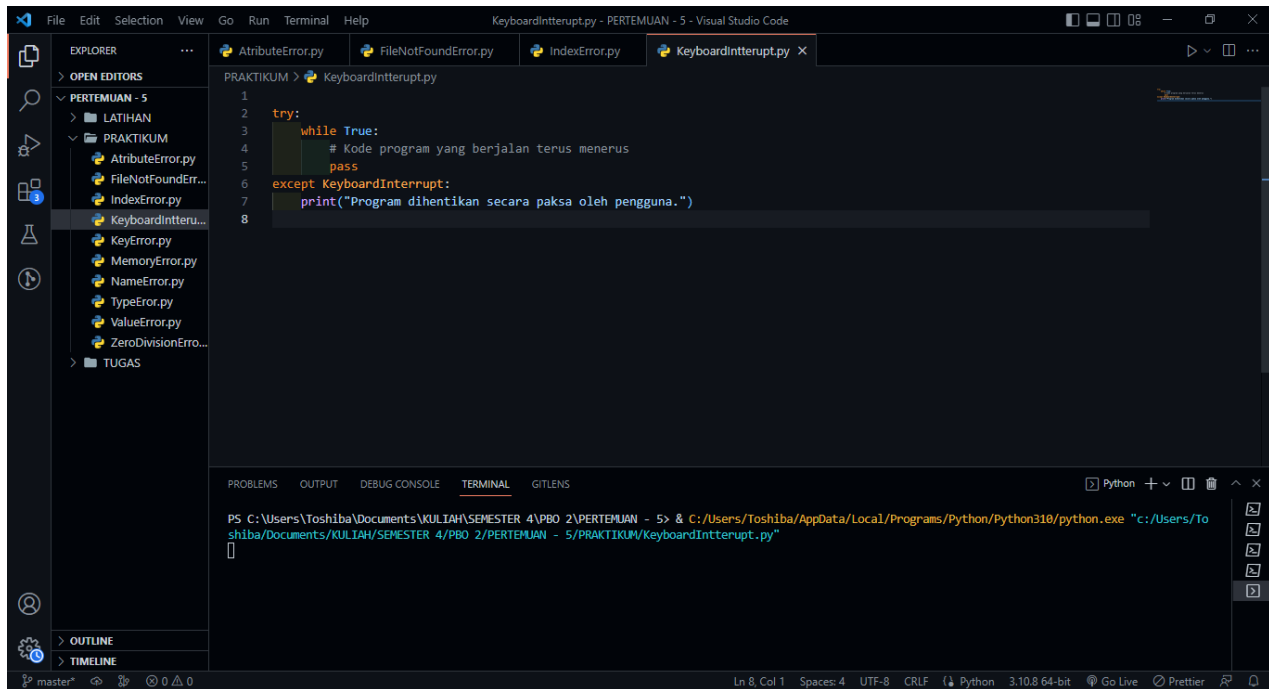
## Output



## Keyboard Interruption :

```
try:
    while True:
        # Kode program yang berjalan terus menerus
        pass
except KeyboardInterrupt:
    print("Program dihentikan secara paksa oleh pengguna.")
```

## Output

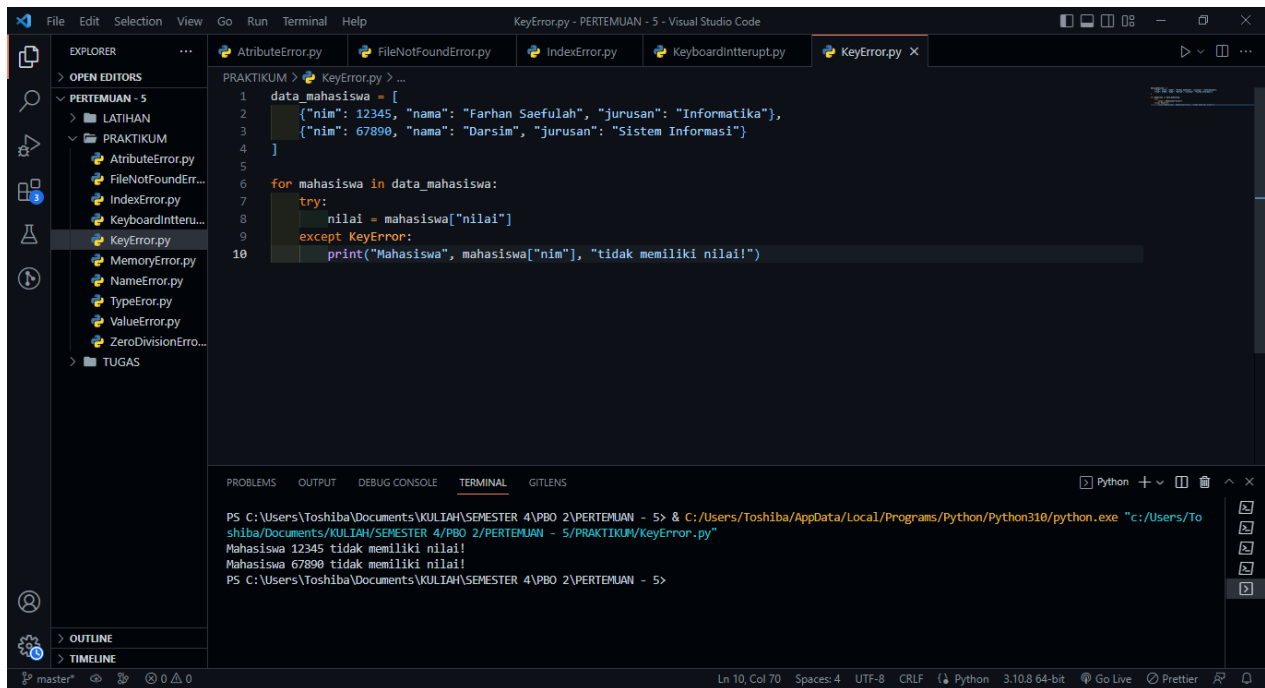


## Key Error:

```
data_mahasiswa = [
    {"nim": 12345, "nama": "Farhan Saefulah", "jurusan": "Informatika"},
    {"nim": 67890, "nama": "Darsim", "jurusan": "Sistem Informasi"}
]

for mahasiswa in data_mahasiswa:
    try:
        nilai = mahasiswa["nilai"]
    except KeyError:
        print("Mahasiswa", mahasiswa["nim"], "tidak memiliki nilai!")
```

## Output



The screenshot shows the Visual Studio Code interface with a Python file named `KeyError.py` open. The code in the editor is as follows:

```
1 data_mahasiswa = [
2     {"nim": 12345, "nama": "Farhan Saefulah", "jurusan": "Informatika"},
3     {"nim": 67890, "nama": "Darsim", "jurusan": "Sistem Informasi"}
4 ]
5
6 for mahasiswa in data_mahasiswa:
7     try:
8         nilai = mahasiswa["nilai"]
9     except KeyError:
10        print("Mahasiswa", mahasiswa["nim"], "tidak memiliki nilai!")
```

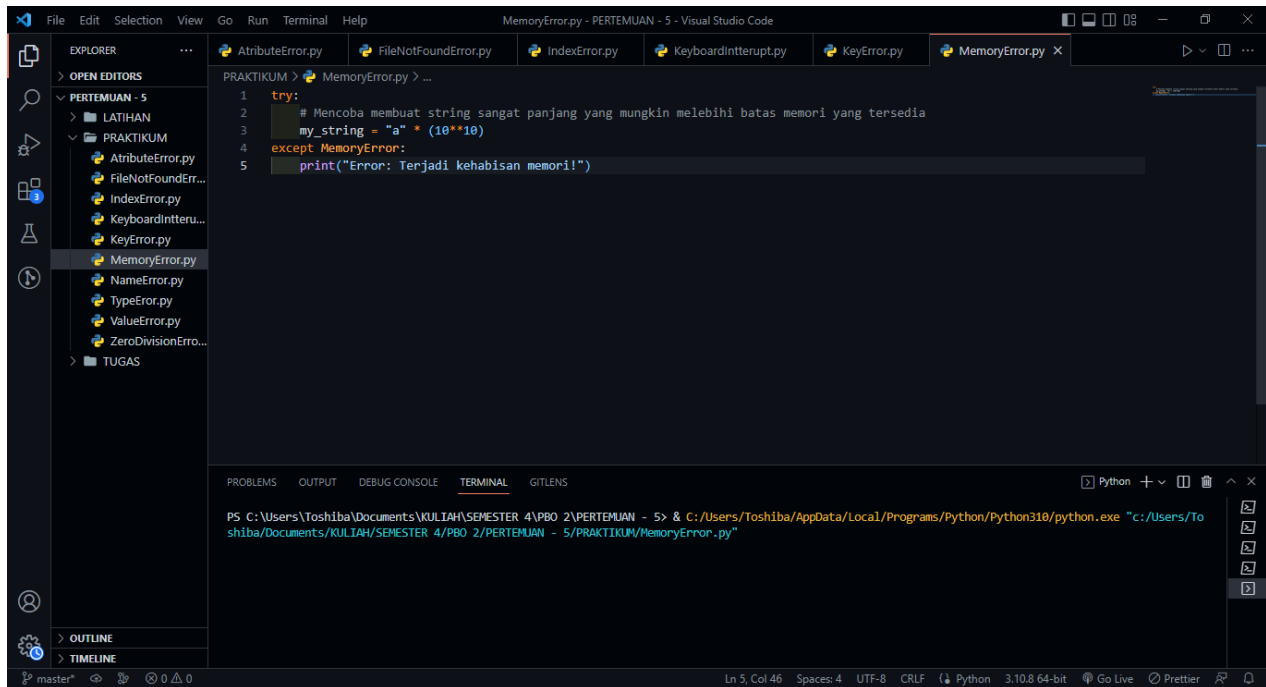
The terminal at the bottom shows the output of the script:

```
P5 C:\Users\Toshiba\Documents\KULIAH\SEMESTER 4\PBO 2\PERTEMUAN - 5> & C:\Users\Toshiba\AppData\Local\Programs\Python\Python310\python.exe "c:/Users/Toshiba/Documents/KULIAH/SEMESTER 4/PBO 2/PERTEMUAN - 5/PRAKTIKUM/KeyError.py"
Mahasiswa 12345 tidak memiliki nilai!
Mahasiswa 67890 tidak memiliki nilai!
P5 C:\Users\Toshiba\Documents\KULIAH\SEMESTER 4\PBO 2\PERTEMUAN - 5>
```

## Memory Error :

```
try:
    # Mencoba membuat string sangat panjang yang mungkin melebihi batas memori
    yang tersedia
    my_string = "a" * (10**10)
except MemoryError:
    print("Error: Terjadi kehabisan memori!")
```

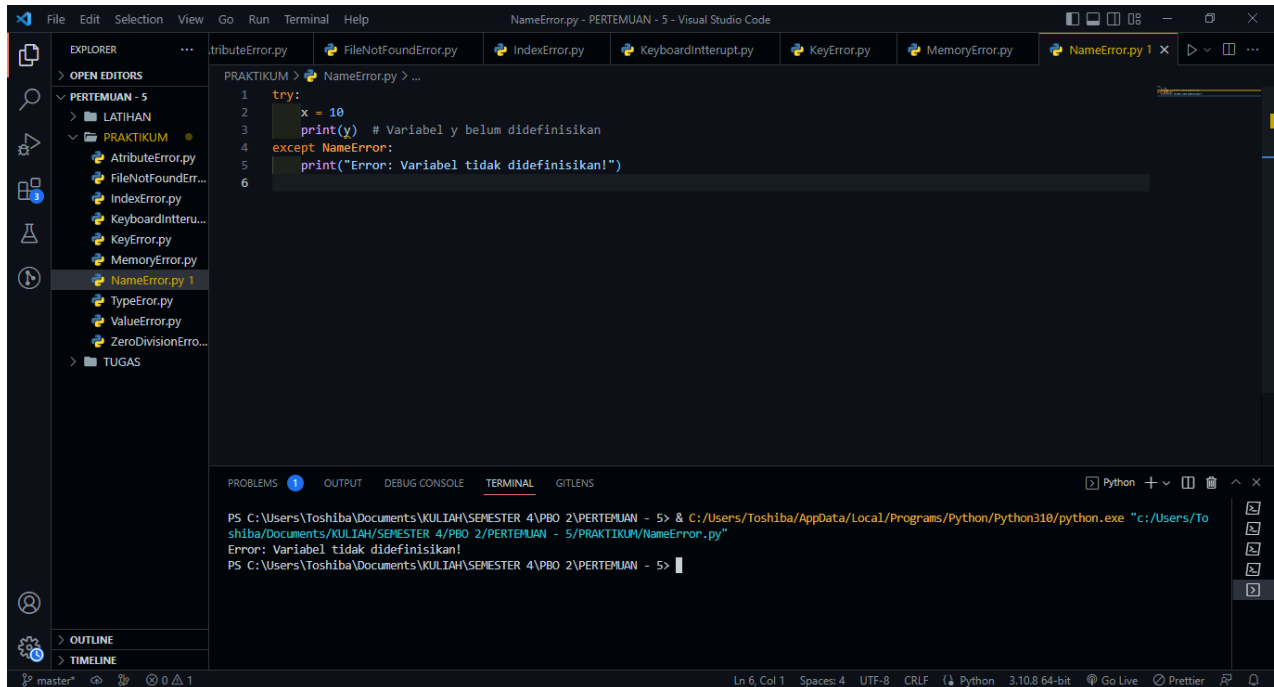
## Output



## Name Error :

```
try:
    x = 10
    print(y) # Variabel y belum didefinisikan
except NameError:
    print("Error: Variabel tidak didefinisikan!")
```

## Output



The screenshot shows the Visual Studio Code interface. The Explorer sidebar on the left displays a project structure with folders 'PERTEMUAN - 5' and 'LATIHAN', and a subfolder 'PRAKTIKUM' containing several Python files. The file 'NameError.py 1' is selected. The main editor window shows the code in 'NameError.py' with a try-except block. The code attempts to print a variable 'y' that has not been defined, resulting in a NameError. The terminal at the bottom shows the command to run the script and the resulting error message.

```
1 try:
2     x = 10
3     print(y) # Variabel y belum didefinisikan
4 except NameError:
5     print("Error: Variabel tidak didefinisikan!")
6
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL GITLENS

```
PS C:\Users\Toshiba\Documents\KULIAH\SEMESTER 4\PBO 2\PERTEMUAN - 5> & C:/Users/Toshiba/AppData/Local/Programs/Python/Python310/python.exe "c:/Users/Toshiba/Documents/KULIAH/SEMESTER 4/PBO 2/PERTEMUAN - 5/PRAKTIKUM/NameError.py"
Error: Variabel tidak didefinisikan!
PS C:\Users\Toshiba\Documents\KULIAH\SEMESTER 4\PBO 2\PERTEMUAN - 5>
```

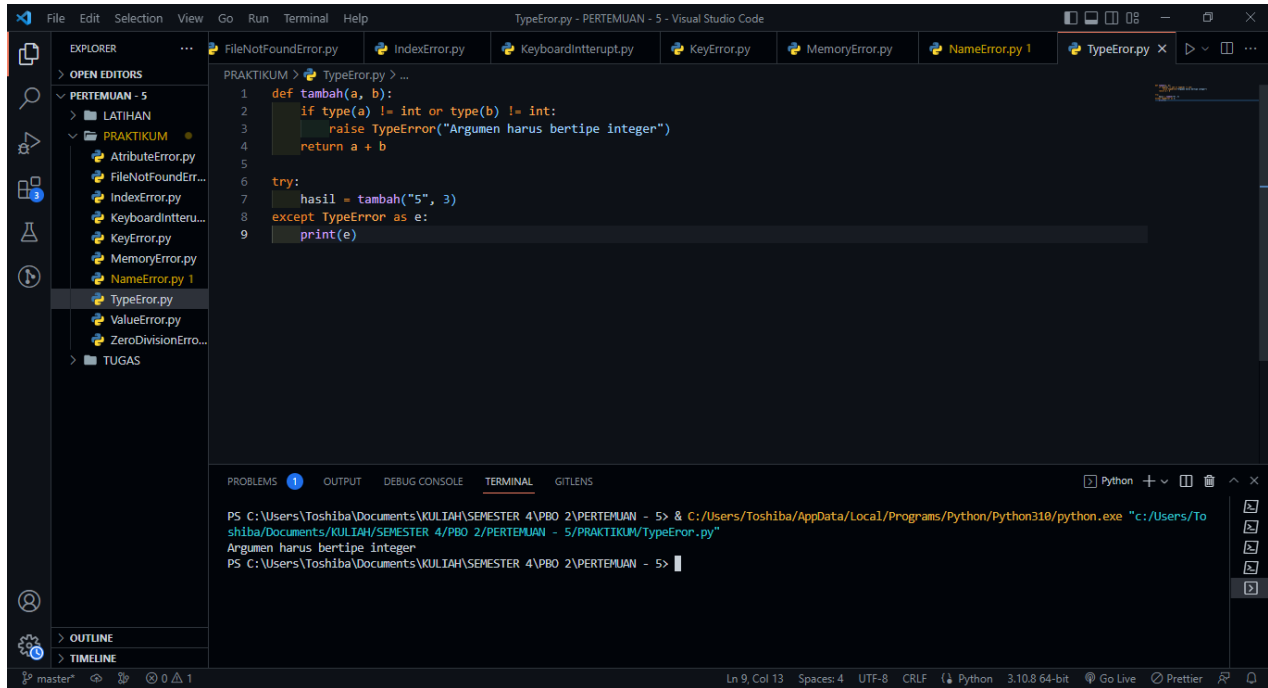
## Type Error :

```
def tambah(a, b):
    if type(a) != int or type(b) != int:
        raise TypeError("Argumen harus bertipe integer")
    return a + b

try:
    hasil = tambah("5", 3)
except TypeError as e:
    print(e)
```



## Output



The screenshot shows the Visual Studio Code interface. The Explorer panel on the left shows a project structure with folders 'PERTEMUAN - 5', 'LATIHAN', and 'PRAKTIKUM'. The 'PRAKTIKUM' folder contains several Python files, including 'TypeError.py'. The main editor displays the code in 'TypeError.py':

```
1 def tambah(a, b):  
2     if type(a) != int or type(b) != int:  
3         raise TypeError("Argumen harus bertipe integer")  
4     return a + b  
5  
6 try:  
7     hasil = tambah("5", 3)  
8 except TypeError as e:  
9     print(e)
```

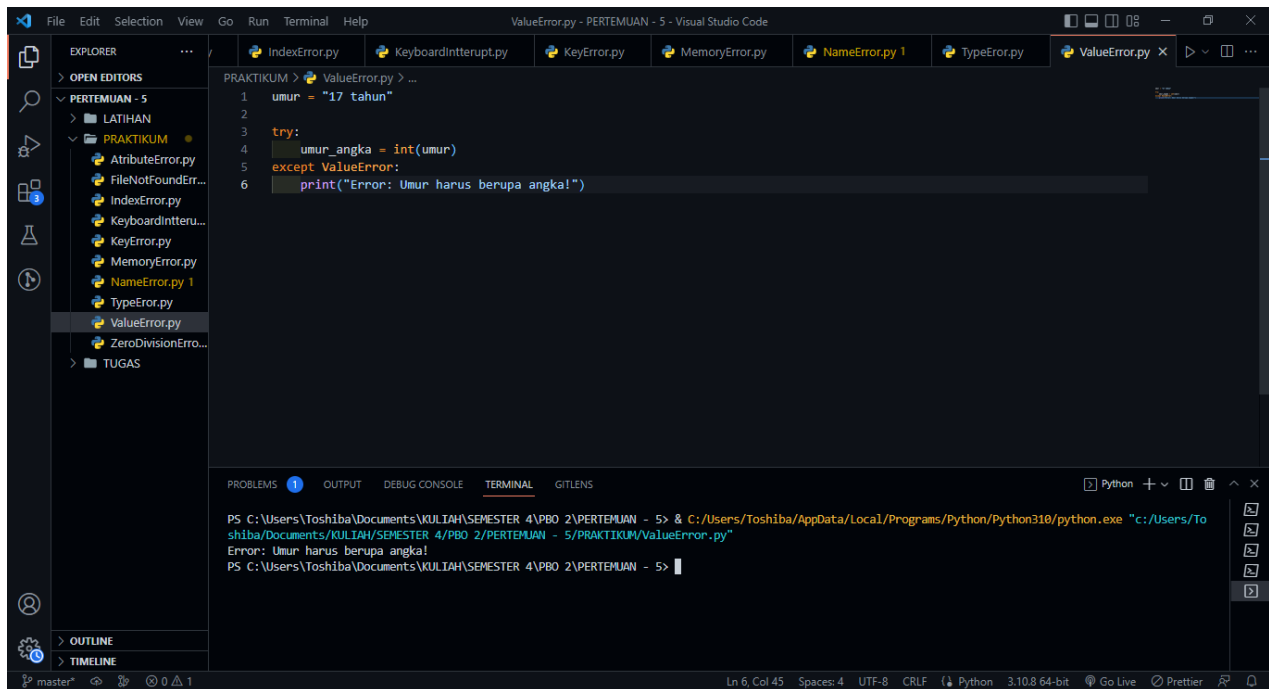
The TERMINAL panel at the bottom shows the command prompt output:

```
P5 C:\Users\Toshiba\Documents\KULIAH\SEMESTER 4\PBO 2\PERTEMUAN - 5> & C:\Users\Toshiba\AppData\Local\Programs\Python\Python310\python.exe "c:/Users/Toshiba/Documents/KULIAH/SEMESTER 4/PBO 2/PERTEMUAN - 5/PRAKTIKUM/TypeError.py"  
Argumen harus bertipe integer  
P5 C:\Users\Toshiba\Documents\KULIAH\SEMESTER 4\PBO 2\PERTEMUAN - 5>
```

## Value Error :

```
umur = "17 tahun"  
  
try:  
    umur_angka = int(umur)  
except ValueError:  
    print("Error: Umur harus berupa angka!")
```

## Output



## Zero Division Error :

```
data = [1, 2, 0, 4, 5]
for nilai in data:
    try:
        hasil = 10 / nilai
    except ZeroDivisionError:
        print("Terjadi kesalahan pembagian dengan nol!")
```

## Output

