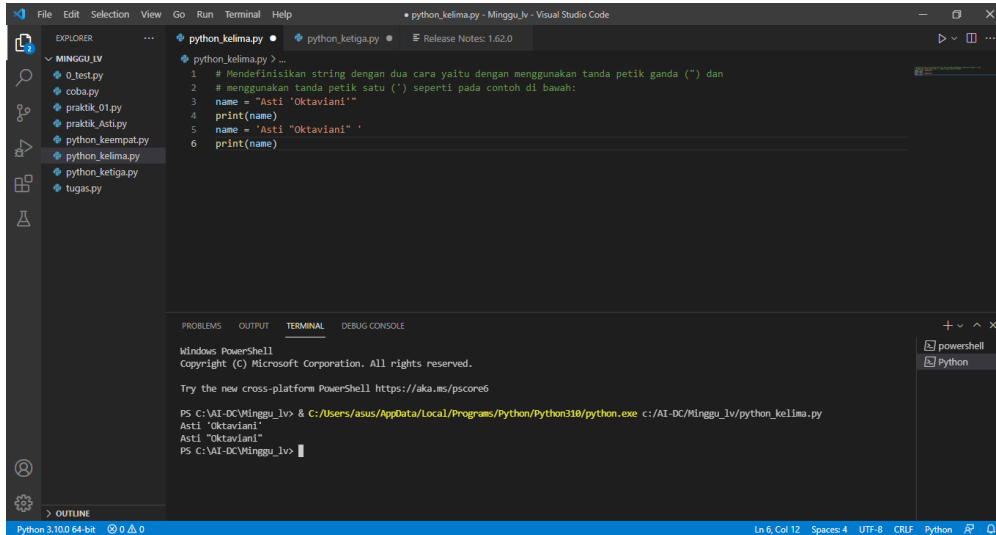


# Praktikum Dasar-dasar Pemrograman Python

## 1. String

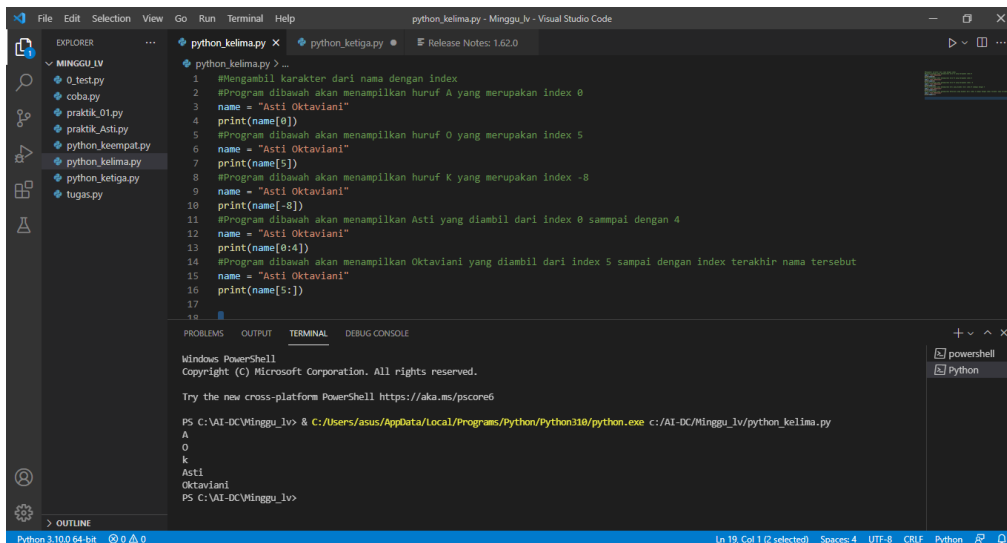


The screenshot shows the Visual Studio Code interface with a file explorer on the left containing files like 0\_test.py, cobas.py, praktik\_01.py, praktik\_Astip.py, python\_keempat.py, python\_kelima.py, python\_keliga.py, and tugas.py. The main editor displays the content of python\_kelima.py:

```
python_kelima.py >...
1 # Mendefinisikan string dengan dua cara yaitu dengan menggunakan tanda petik ganda (") dan
2 # menggunakan tanda petik satu (') seperti pada contoh di bawah:
3 name = "Asti 'Oktaviani'"
4 print(name)
5 name = 'Asti "Oktaviani" '
6 print(name)
```

The terminal at the bottom shows the execution of the script using the command `c:\AI-DC\Minggu_1\python_kelima.py`, resulting in the output:

```
PS C:\AI-DC\Minggu_1\ & C:/Users/asus/AppData/Local/Programs/Python/Python310/python.exe c:/AI-DC/Minggu_1/python_kelima.py
Asti 'Oktaviani'
Asti "Oktaviani"
PS C:\AI-DC\Minggu_1\ >
```



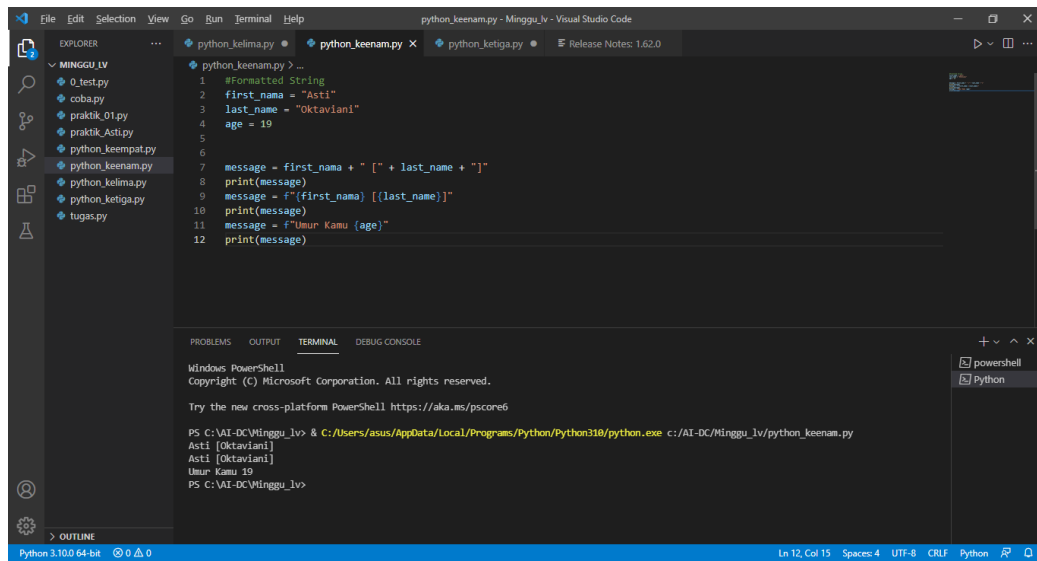
The screenshot shows the Visual Studio Code interface with the same file explorer. The main editor displays the content of python\_kelima.py with string indexing examples:

```
python_kelima.py >...
1 #Mengambil karakter dari nama dengan index
2 #Program dibawah akan menampilkan huruf A yang merupakan index 0
3 name = "Asti Oktaviani"
4 print(name[0])
5 #Program dibawah akan menampilkan huruf O yang merupakan index 5
6 name = "Asti Oktaviani"
7 print(name[5])
8 #Program dibawah akan menampilkan huruf k yang merupakan index -8
9 name = "Asti Oktaviani"
10 print(name[-8])
11 #Program dibawah akan menampilkan Asti yang diambil dari index 0 sampai dengan 4
12 name = "Asti Oktaviani"
13 print(name[0:4])
14 #Program dibawah akan menampilkan Oktaviani yang diambil dari index 5 sampai dengan index terakhir nama tersebut
15 name = "Asti Oktaviani"
16 print(name[5:])
17
18
```

The terminal at the bottom shows the execution of the script using the command `c:\AI-DC\Minggu_1\python_kelima.py`, resulting in the output:

```
PS C:\AI-DC\Minggu_1\ & C:/Users/asus/AppData/Local/Programs/Python/Python310/python.exe c:/AI-DC/Minggu_1/python_kelima.py
A
O
k
Asti
Oktaviani
PS C:\AI-DC\Minggu_1\ >
```

## 2. Formatted String



The screenshot shows the Visual Studio Code interface with a Python file named `python_keenam.py` open. The file contains a script that demonstrates formatted strings. The terminal window shows the output of the script, which prints the first and last names, the full name in brackets, and the age.

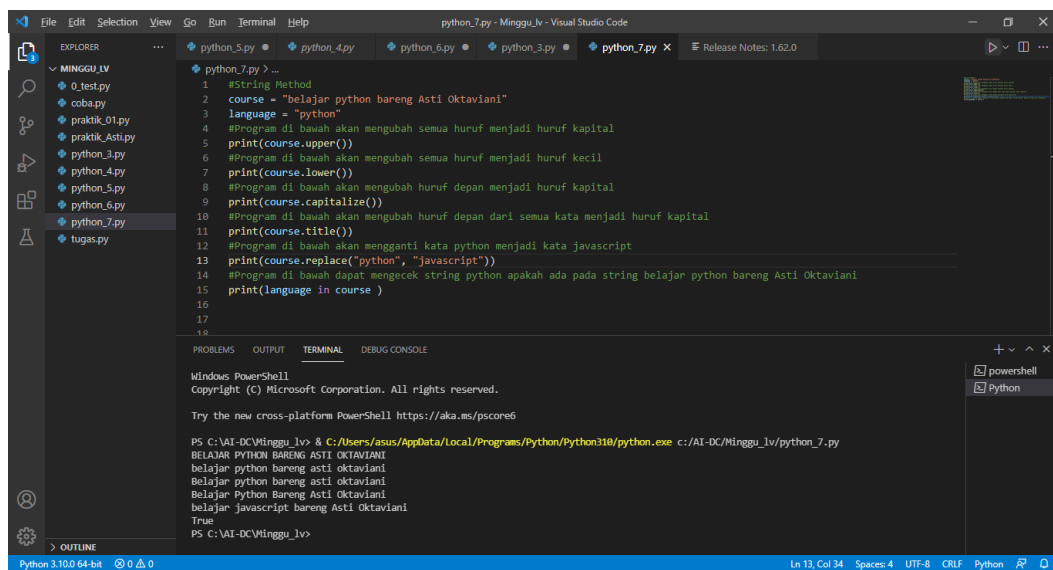
```
1 #Formatted String
2 first_nama = "Asti"
3 last_name = "Oktaviani"
4 age = 19
5
6
7 message = first_nama + " [" + last_name + "]"
8 print(message)
9 message = f"({first_nama}) [{last_name}]"
10 print(message)
11 message = f"Umur Kamu {age}"
12 print(message)
```

```
Windows PowerShell
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PS C:\AI-DC\Minggu_lv> & C:/Users/asus/AppData/Local/Programs/Python/Python310/python.exe c:/AI-DC/Minggu_lv/python_keenam.py
Asti [Oktaviani]
Asti [Oktaviani]
Umur Kamu 19
PS C:\AI-DC\Minggu_lv>
```

## 3. String Method



The screenshot shows the Visual Studio Code interface with a Python file named `python_7.py` open. The file contains a script that demonstrates various string methods. The terminal window shows the output of the script, which prints the course name in different cases and formats, and checks if the word 'python' is in the course name.

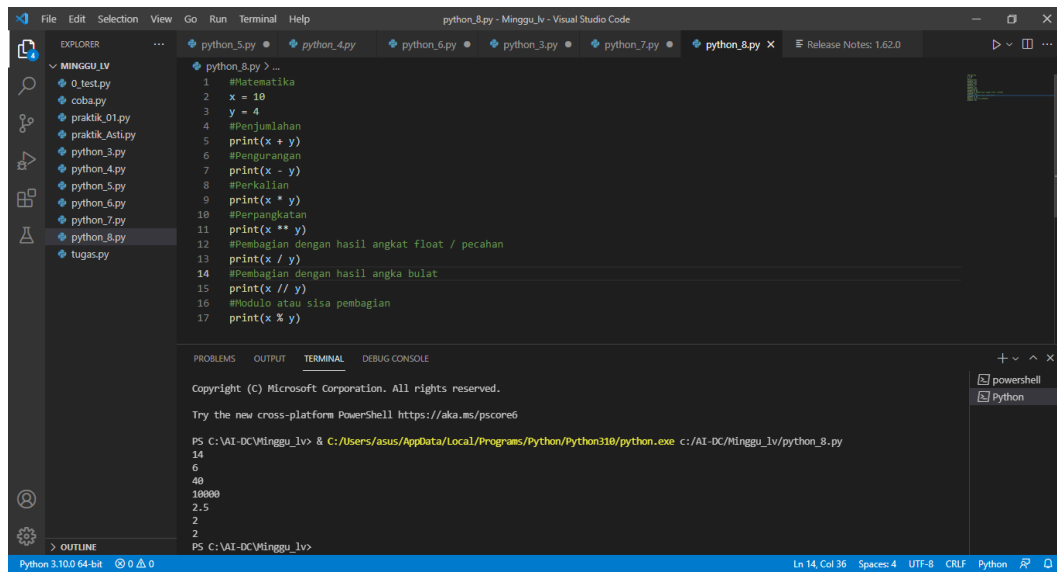
```
1 #String Method
2 course = "belajar python bareng Asti Oktaviani"
3 language = "python"
4 #Program di bawah akan mengubah semua huruf menjadi huruf kapital
5 print(course.upper())
6 #Program di bawah akan mengubah semua huruf menjadi huruf kecil
7 print(course.lower())
8 #Program di bawah akan mengubah huruf depan menjadi huruf kapital
9 print(course.capitalize())
10 #Program di bawah akan mengubah huruf depan dari semua kata menjadi huruf kapital
11 print(course.title())
12 #Program di bawah akan mengganti kata python menjadi kata javascript
13 print(course.replace("python", "javascript"))
14 #Program di bawah dapat mengecek string python apakah ada pada string belajar python bareng Asti Oktaviani
15 print(language in course)
16
17
18
```

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

PS C:\AI-DC\Minggu_lv> & C:/Users/asus/AppData/Local/Programs/Python/Python310/python.exe c:/AI-DC/Minggu_lv/python_7.py
BELAJAR PYTHON BARENG ASTI OKTAVIANI
belajar python bareng asti oktaviani
Belajar python bareng asti oktaviani
Belajar Python Bareng Asti Oktaviani
belajar javascript bareng Asti Oktaviani
True
PS C:\AI-DC\Minggu_lv>
```

## 4. Matematika

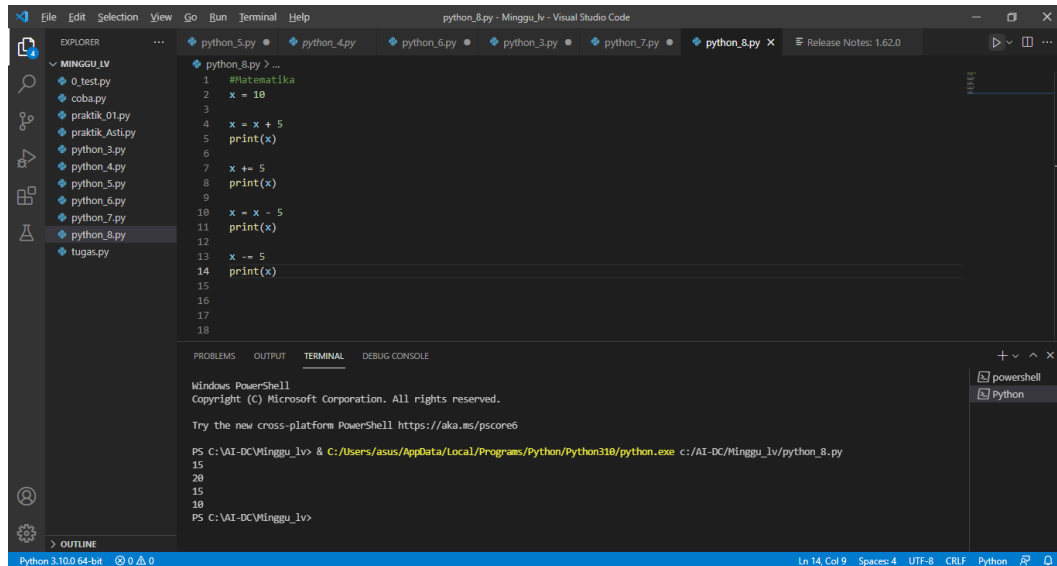


The screenshot shows the Visual Studio Code interface with a Python file named `python_8.py` open. The file contains a script for mathematical operations. The terminal window shows the command to run the script and its output.

```
1 #Matematika
2 x = 10
3 y = 4
4 #Penjumlahan
5 print(x + y)
6 #Pengurangan
7 print(x - y)
8 #Perkalian
9 print(x * y)
10 #Perpangkatan
11 print(x ** y)
12 #Pembagian dengan hasil angkat float / pecahan
13 print(x / y)
14 #Pembagian dengan hasil angka bulat
15 print(x // y)
16 #Modulo atau sisa pembagian
17 print(x % y)
```

Terminal Output:

```
PS C:\AI-DC\Winggu_lv> & C:/Users/asus/AppData/Local/Programs/Python/Python310/python.exe c:/AI-DC/Winggu_lv/python_8.py
14
6
40
10000
2.5
2
2
PS C:\AI-DC\Winggu_lv>
```



The screenshot shows the Visual Studio Code interface with a Python file named `python_8.py` open. The file contains a script for arithmetic operations. The terminal window shows the command to run the script and its output.

```
1 #Matematika
2 x = 10
3
4 x = x + 5
5 print(x)
6
7 x += 5
8 print(x)
9
10 x = x - 5
11 print(x)
12
13 x -= 5
14 print(x)
15
16
17
18
```

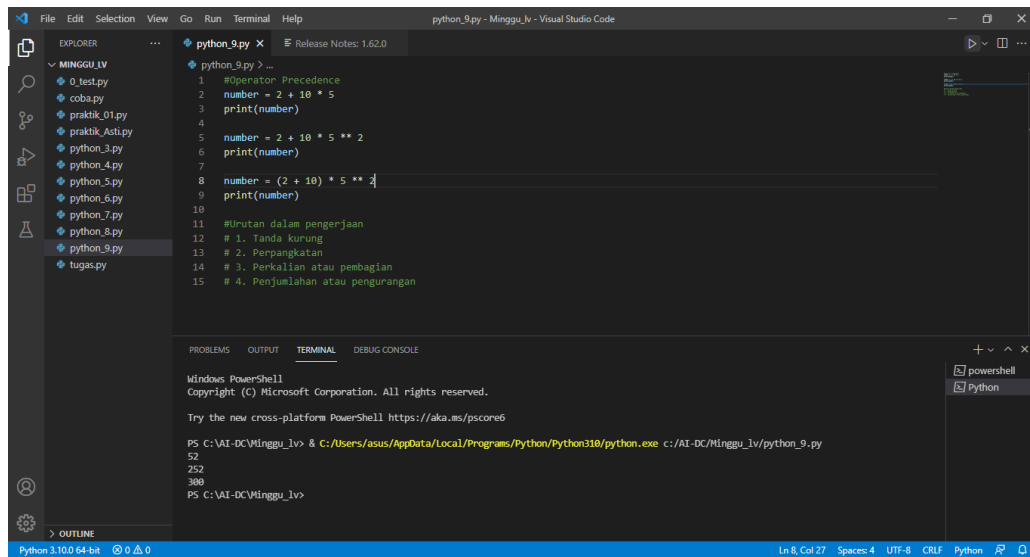
Terminal Output:

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

PS C:\AI-DC\Winggu_lv> & C:/Users/asus/AppData/Local/Programs/Python/Python310/python.exe c:/AI-DC/Winggu_lv/python_8.py
15
20
15
10
PS C:\AI-DC\Winggu_lv>
```

## 5. Operator Precedence



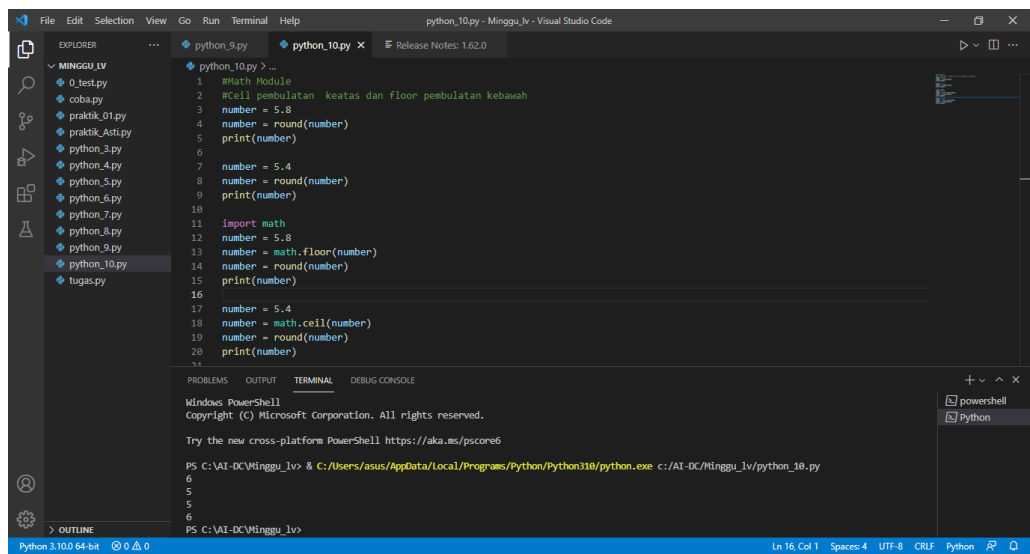
The screenshot shows a Visual Studio Code window with a Python file named `python_9.py`. The code demonstrates operator precedence with the following lines:

```
1 #Operator Precedence
2 number = 2 + 10 * 5
3 print(number)
4
5 number = 2 + 10 * 5 ** 2
6 print(number)
7
8 number = (2 + 10) * 5 ** 2
9 print(number)
10
11 #Urutan dalam pengerjaan
12 # 1. Tanda kurung
13 # 2. Perpangkatan
14 # 3. Perkalian atau pembagian
15 # 4. Penjumlahan atau pengurangan
```

The terminal output shows the results of these calculations:

```
PS C:\AI-DC\Minggu_1v> c:/Users/asus/AppData/Local/Programs/Python/Python318/python.exe c:/AI-DC/Minggu_1v/python_9.py
52
252
380
PS C:\AI-DC\Minggu_1v>
```

## 6. Math Module



The screenshot shows a Visual Studio Code window with a Python file named `python_10.py`. The code demonstrates the use of the `math` module for rounding and floor/ceil operations:

```
1 #Math Module
2 #Cell pembulatan keatas dan floor pembulatan kebawah
3 number = 5.8
4 number = round(number)
5 print(number)
6
7 number = 5.4
8 number = round(number)
9 print(number)
10
11 import math
12 number = 5.8
13 number = math.floor(number)
14 number = round(number)
15 print(number)
16
17 number = 5.4
18 number = math.ceil(number)
19 number = round(number)
20 print(number)
```

The terminal output shows the results of these operations:

```
PS C:\AI-DC\Minggu_1v> & c:/Users/asus/AppData/Local/Programs/Python/Python318/python.exe c:/AI-DC/Minggu_1v/python_10.py
6
5
5
6
PS C:\AI-DC\Minggu_1v>
```