

LAPORAN PRAKTIKUM

PEMROGRAMAN BERORIENTASI OBJEK LANJUT

2023



Prepared By:

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PEMROGRAMAN BERORIENTASI OBJECK LANJUTAN

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Soal Praktikum:

1. Buatlah Class yang mengimplementasikan Prosedural, beri nama: celsius_pro.py
 - a. Sintaks :

```
class Celsius :
    def to_fahrenheit(celsius):
        return (celsius * 9/5) + 32

    def to_reamur(celsius):
        return celsius * 4/5

    def to_kelvin(celsius):
        return celsius + 273.15

print("|  CONVERTER  CELSIUS_PRO  |\n")

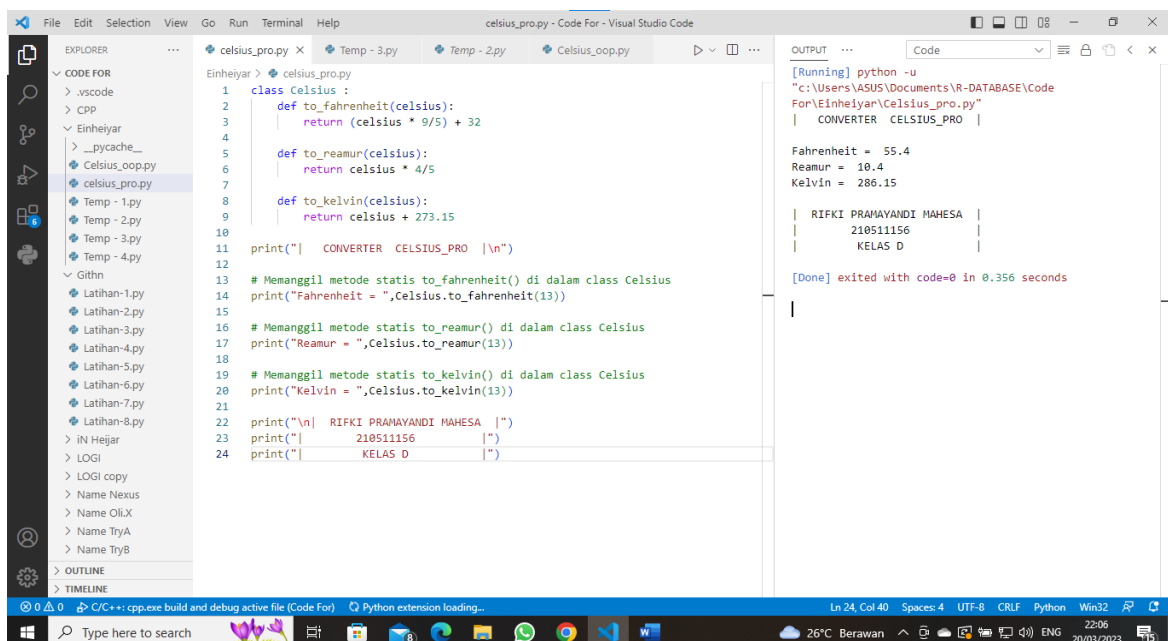
# Memanggil metode statis to_fahrenheit() di dalam class Celsius
print("Fahrenheit = ",Celsius.to_fahrenheit(13))

# Memanggil metode statis to_reamur() di dalam class Celsius
print("Reamur = ",Celsius.to_reamur(13))

# Memanggil metode statis to_kelvin() di dalam class Celsius
print("Kelvin = ",Celsius.to_kelvin(13))

print("\n|  RIFKI PRAMAYANDI MAHESA  |")
print("|          210511156          |")
print("|          KELAS D              |")
```

b. Hasil Program :



The screenshot shows the Visual Studio Code interface with a file named 'celsius_pro.py' open. The code defines a 'Celsius' class with three static methods: 'to_fahrenheit', 'to_reamur', and 'to_kelvin'. Below the class definition, there are several print statements that call these methods with the value 13 and also print a header and student information. The output window on the right shows the execution results, including the converted values for Fahrenheit (55.4), Reamur (10.4), and Kelvin (286.15), followed by the student's name and ID.

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

EXPLORER
CODE FOR
  .vscode
  CPP
  Einheiyar
    __pycache__
    Celsius_oop.py
    celsius_pro.py
    Temp - 1.py
    Temp - 2.py
    Temp - 3.py
    Temp - 4.py
  Githn
    Latihan-1.py
    Latihan-2.py
    Latihan-3.py
    Latihan-4.py
    Latihan-5.py
    Latihan-6.py
    Latihan-7.py
    Latihan-8.py
  in Hejar
  LOGI
  LOGI copy
  Name Nexus
  Name OliX
  Name TryA
  Name TryB
  OUTLINE
  TIMELINE

celsius_pro.py
1 class Celsius :
2     def to_fahrenheit(celsius):
3         return (celsius * 9/5) + 32
4
5     def to_reamur(celsius):
6         return celsius * 4/5
7
8     def to_kelvin(celsius):
9         return celsius + 273.15
10
11 print("|  CONVERTER  CELSIUS_PRO  |\n")
12
13 # Memanggil metode statis to_fahrenheit() di dalam class Celsius
14 print("Fahrenheit = ",Celsius.to_fahrenheit(13))
15
16 # Memanggil metode statis to_reamur() di dalam class Celsius
17 print("Reamur = ",Celsius.to_reamur(13))
18
19 # Memanggil metode statis to_kelvin() di dalam class Celsius
20 print("Kelvin = ",Celsius.to_kelvin(13))
21
22 print("\n|  RIFKI PRAMAYANDI MAHESA  |")
23 print("|          210511156          |")
24 print("|          KELAS D              |")

OUTPUT
[Running] python -u
"C:\Users\IASUS\Documents\R-DATABASE\Code
For\Einheiyar\celsius_pro.py"
|  CONVERTER  CELSIUS_PRO  |

Fahrenheit = 55.4
Reamur = 10.4
Kelvin = 286.15

|  RIFKI PRAMAYANDI MAHESA  |
|          210511156          |
|          KELAS D              |

[Done] exited with code=0 in 0.356 seconds
```

2. Buatlah Class yang mengimplementasikan Object Oriented Programming, beri nama: celcius_oop.py
- a. Sintaks :

```
class Celsius:
    def __init__(self, temperature):
        self.temperature = temperature

    def to_fahrenheit(self):
        return (self.temperature * 9/5) + 32

    def to_kelvin(self):
        return self.temperature + 273

    def to_reamur(self):
        return self.temperature * 4/5

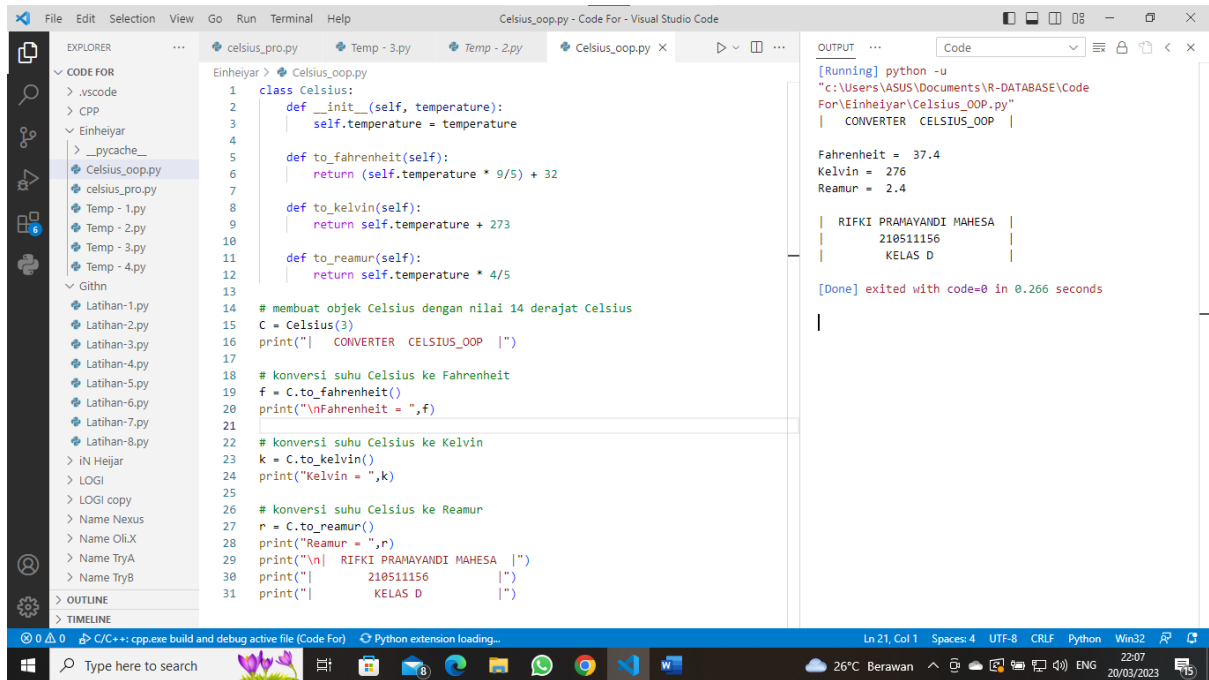
# membuat objek Celsius dengan nilai 14 derajat Celsius
C = Celsius(3)
print("|   CONVERTER   CELSIUS_OOP   |")

# konversi suhu Celsius ke Fahrenheit
f = C.to_fahrenheit()
print("\nFahrenheit = ",f)

# konversi suhu Celsius ke Kelvin
k = C.to_kelvin()
print("Kelvin = ",k)

# konversi suhu Celsius ke Reamur
r = C.to_reamur()
print("Reamur = ",r)
print("\n|   RIFKI PRAMAYANDI MAHESA   |")
print("|           210511156           |")
print("|           KELAS D           |")
```

b. Hasil Program :



The screenshot displays the Visual Studio Code interface with a Python file named `Celsius_oop.py` open. The code defines a `Celsius` class with methods for converting Celsius to Fahrenheit, Kelvin, and Reamur. It also includes a main block that creates a `Celsius` object and performs these conversions.

```
1 class Celsius:
2     def __init__(self, temperature):
3         self.temperature = temperature
4
5     def to_fahrenheit(self):
6         return (self.temperature * 9/5) + 32
7
8     def to_kelvin(self):
9         return self.temperature + 273
10
11    def to_reamur(self):
12        return self.temperature * 4/5
13
14    # membuat objek Celsius dengan nilai 14 derajat Celsius
15    c = Celsius(3)
16    print("| CONVERTER CELSIUS_OOP |")
17
18    # konversi suhu Celsius ke Fahrenheit
19    f = c.to_fahrenheit()
20    print("\nFahrenheit = ",f)
21
22    # konversi suhu Celsius ke Kelvin
23    k = c.to_kelvin()
24    print("Kelvin = ",k)
25
26    # konversi suhu Celsius ke Reamur
27    r = c.to_reamur()
28    print("Reamur = ",r)
29    print("\n| RIFKI PRAMAYANDI MAHESA |")
30    print("| 210511156 |")
31    print("| KELAS D |")
```

The output window shows the execution results:

```
[Running] python -u
"C:\Users\ASUS\Documents\R-DATABASE\Code
For\Einheiyar\Celsius_OOP.py"
| CONVERTER CELSIUS_OOP |

Fahrenheit = 37.4
Kelvin = 276
Reamur = 2.4

| RIFKI PRAMAYANDI MAHESA |
| 210511156 |
| KELAS D |

[Done] exited with code=0 in 0.266 seconds
```