PROGRAM BERORIENTASI OBYEK LANJUT (POB/OOP)

TUGAS 1

Diajukan untuk memenuhi salah satu tugas mata kuliah Program Berorientasi Obyek Lanjutan yang diampu oleh Freddy Wicaksono,M.Kom

Disusun Oleh :

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Buatlah 3 buah class (Fahrenheit, Reamur, dan Kelvin) yang mengimplementasikan OOP dimana setiap class memiliki kemampuan untuk melakukan konversi ke Temperatur yang lain.

1. Sintask :
   a. Fahrenheit

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

    def to_celsius(self):
        return (self.temperature - 32) * 5 / 9

    def to_reamur(self):
        return (self.temperature - 32) * 4 / 9

    def to_kelvin(self):
        return (self.temperature + 459.67) * 5 / 9

# membuat objek Fahrenheit dengan nilai 7 derajat Fahrenheit
f = Fahrenheit(7)
print("|   CONVERTER  FAHRENHEIT   |")

# konversi suhu Fahrenheit ke Celsius
c = f.to_celsius()
print("\nCelsius = ",c)

# konversi suhu Fahrenheit ke Reamur
r = f.to_reamur()
print("Reamur = ",r)

# konversi suhu Fahrenheit ke Kelvin
k = f.to_kelvin()
print("Kelvin = ",k)
print("\n|  RIFKI PRAMAYANDI MAHESA  |")
print("|        210511156          |")
print("|         KELAS D           |")
```

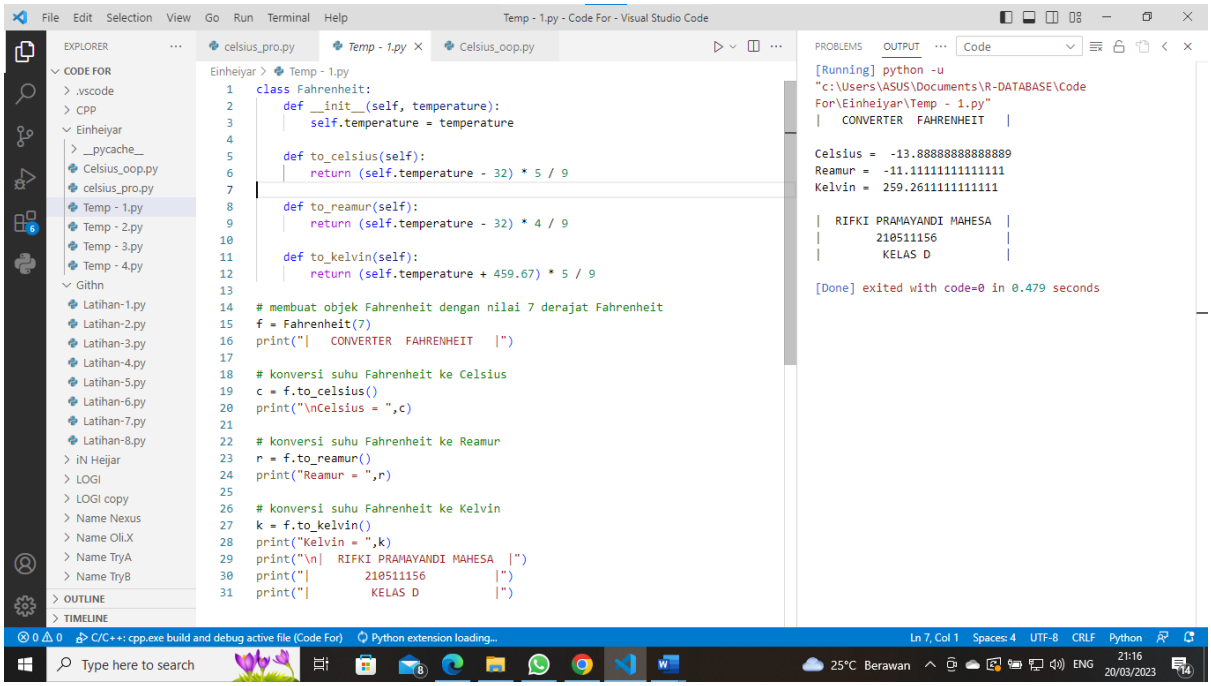
b. Reamur

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

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

    def to_fahrenheit(self):
        return self.temperature * 9 / 4 + 32

    def to_kelvin(self):
        return self.temperature * 5 / 4 + 273.15

# membuat objek Reamur dengan nilai 23 derajat Reamur
R = Reamur(23)
print("|   CONVERTER  REAMUR   |")

# konversi suhu Reamur ke Celsius
c = R.to_celsius()
print("\nCelsius = ",c)

# konversi suhu Reamur ke Fahrenheit
f = R.to_fahrenheit()
print("Fahrenheit = ",f)

# konversi suhu Reamur ke Kelvin
k = R.to_kelvin()
print("Kelvin = ",k)
print("\n|RIFKI PRAMAYANDI MAHESA|")
print("|      210511156        |")
print("|       KELAS D         |")
```

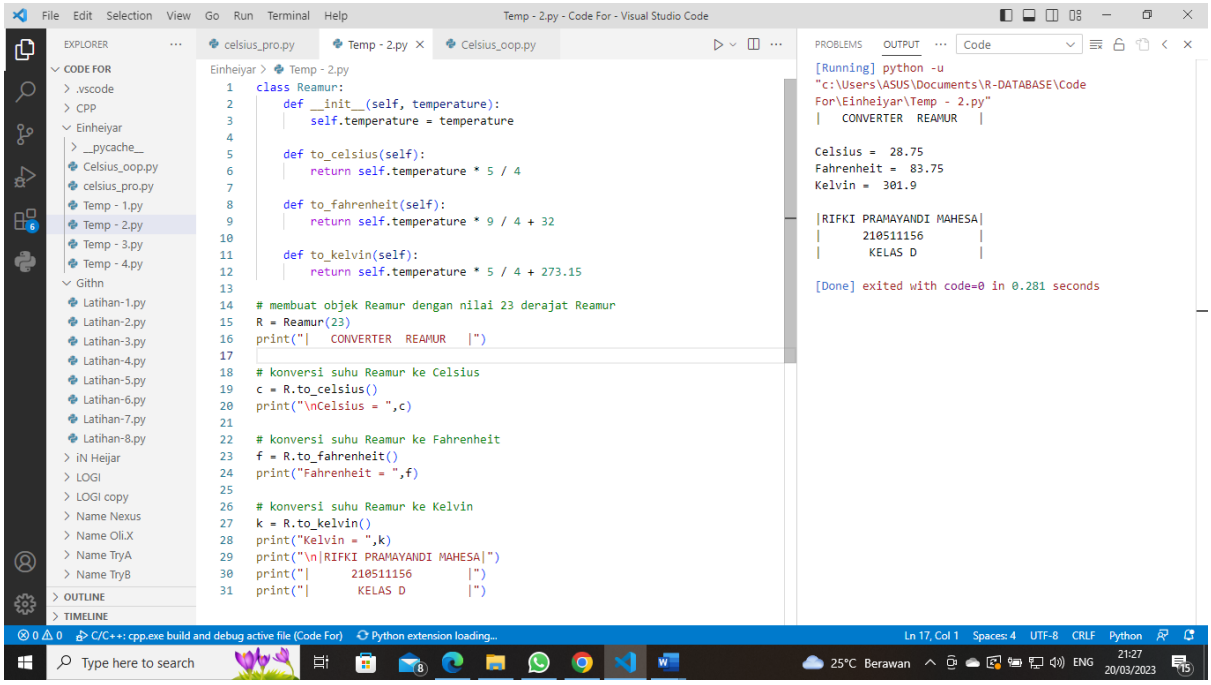
c. Kelvin

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

    def to_celsius(self):
        return self.temperature - 273.15

    def to_fahrenheit(self):
        return self.temperature * 9 / 5 - 459.67

    def to_reamur(self):
        return (self.temperature - 273.15) * 4 / 5

# membuat objek Kelvin dengan nilai 14 derajat Kelvin
K = Kelvin(14)
print("|   CONVERTER  KELVIN   |")

# konversi suhu Kelvin ke Celsius
c = K.to_celsius()
print("\nCelsius = ",c)

# konversi suhu Kelvin ke Fahrenheit
f = K.to_fahrenheit()
print("Fahrenheit = ",f)

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

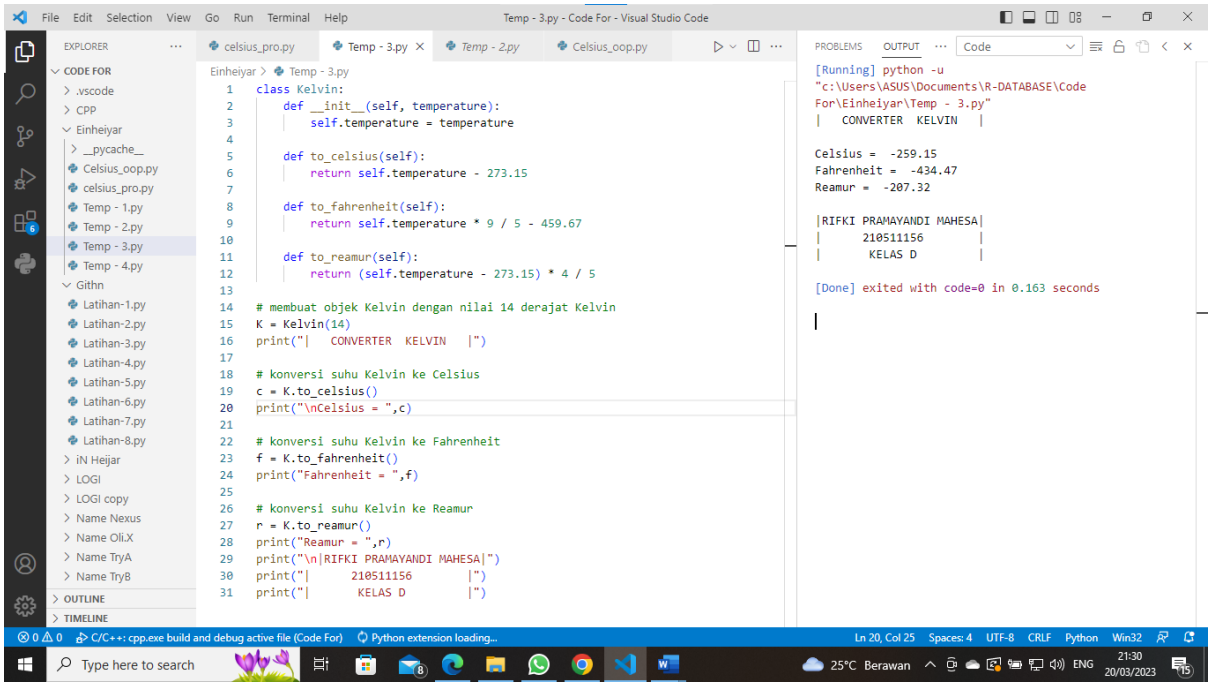
2. Hasil Program :
   a. Fahrenheit



   b. Reamur



c. Kelvin


File Edit Selection View Go Run Terminal Help
Temp - 3.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 Heijar
LOGI
LOGI copy
Name Nexus
Name Oli.X
Name TryA
Name TryB
OUTLINE
TIMELINE
celsius_pro.py
Temp - 3.py
Temp - 2.py
Celsius_oop.py
Einheiyar > Temp - 3.py
class Kelvin:
def __init__(self, temperature):
self.temperature = temperature
def to_celsius(self):
return self.temperature - 273.15
def to_fahrenheit(self):
return self.temperature * 9 / 5 - 459.67
def to_reamur(self):
return (self.temperature - 273.15) * 4 / 5
# membuat objek Kelvin dengan nilai 14 derajat Kelvin
K = Kelvin(14)
print("| CONVERTER KELVIN |")
# konversi suhu Kelvin ke Celsius
c = K.to_celsius()
print("\nCelsius = ",c)
# konversi suhu Kelvin ke Fahrenheit
f = K.to_fahrenheit()
print("Fahrenheit = ",f)
# konversi suhu Kelvin ke Reamur
r = K.to_reamur()
print("Reamur = ",r)
print("\n|RIFKI PRAMAYANDI MAHESA|")
print("| 210511156 |")
print("| KELAS D |")
PROBLEMS OUTPUT Code
[Running] python -u
"c:\Users\ASUS\Documents\R-DATABASE\Code
For\Einheiyar\Temp - 3.py"
| CONVERTER KELVIN |
Celsius = -259.15
Fahrenheit = -434.47
Reamur = -207.32
|RIFKI PRAMAYANDI MAHESA|
| 210511156 |
| KELAS D |
[Done] exited with code=0 in 0.163 seconds
0 0 C/C++: cpp.exe build and debug active file (Code For) Python extension loading...
Ln 20, Col 25 Spaces: 4 UTF-8 CRLF Python Win32
Type here to search
25°C Berawan
ENG
21:30
20/03/2023