

Nama: Andrian Shevchenko

NIM: 210511071

Kelas: TI21B (R2)

Tugas Minggu 1:

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

Jawaban berupa 3 buah screenshot script beserta hasilnya dikirim ke email (freddy.wicaksono@umc.ac.id) dengan subject: **Tugas-1 PBO2 2023**

Code:

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

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

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

    def to_kelvin(self):
        return (self.temp - 32) * 5 / 9 + 273.15

fahrenheit = Fahrenheit(30)
celcius = int(fahrenheit.to_celsius())
kelvin = int(fahrenheit.to_kelvin())
reamur = int(fahrenheit.to_reamur())

print(f"{fahrenheit.temp} derajat Fahrenheit = {celcius} derajat Celcius")
print(f"{fahrenheit.temp} derajat Fahrenheit = {kelvin} derajat Kelvin")
print(f"{fahrenheit.temp} derajat Fahrenheit = {reamur} derajat Reamur\n")

class Reamur:
    def __init__(self, temp):
        self.temp = temp

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

```

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

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

reamur = Reamur(30)
celcius = reamur.to_celsius()
kelvin = reamur.to_kelvin()
fahrenheit = reamur.to_fahrenheit()

print(f"{reamur.temp} derajat Reamur = {celcius} derajat Celcius")
print(f"{reamur.temp} derajat Reamur = {kelvin} derajat Kelvin")
print(f"{reamur.temp} derajat Reamur = {fahrenheit} derajat Fahrenheit\n")

class Kelvin:
    def __init__(self, temp):
        self.temp = temp

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

    def to_fahrenheit(self):
        return (self.temp - 273.15) * 9 / 5 + 32

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

kelvin = Kelvin(30)
celcius = round(kelvin.to_celsius(), 1)
fahrenheit = round(kelvin.to_fahrenheit(), 1)
reamur = round(kelvin.to_reamur(), 1)

print(f"{kelvin.temp} derajat Kelvin = {celcius} derajat Celcius")
print(f"{kelvin.temp} derajat Kelvin = {fahrenheit} derajat Fahrenheit")
print(f"{kelvin.temp} derajat Kelvin = {reamur} derajat Reamur")

```

Output:

<https://github.com/andrianshevc/Pemrog>
[raman Berorientasi Objek Lanjut/blob/](#)
[main/Pertemuan1/Tugas1/KonversiTemp](#)
[eratur.py](#)

30 derajat Fahrenheit = -1 derajat Celcius
30 derajat Fahrenheit = 272 derajat Kelvin
30 derajat Fahrenheit = 0 derajat Reamur

30 derajat Reamur = 37.5 derajat Celcius
30 derajat Reamur = 310.65 derajat Kelvin
30 derajat Reamur = 99.5 derajat Fahrenheit

30 derajat Kelvin = -243.1 derajat Celcius
30 derajat Kelvin = -405.7 derajat Fahrenheit
30 derajat Kelvin = -194.5 derajat Reamur

Screenshot:

The screenshot displays the Visual Studio Code interface with a Python file named `KonversiTemperatur.py` open. The code defines a `Reamur` class with methods to convert Reamur to Celsius, Fahrenheit, and Kelvin. It then creates a `reamur = Reamur(30)` object and prints the results of these conversions.

```
26
27
28     def to_celsius(self):
29         return self.temp * 5 / 4
30
31     def to_fahrenheit(self):
32         return self.temp * 9 / 4 + 32
33
34     def to_kelvin(self):
35         return self.temp * 5 / 4 + 273.15
36
37 reamur = Reamur(30)
38 celsius = reamur.to_celsius()
39 kelvin = reamur.to_kelvin()
40 fahrenheit = reamur.to_fahrenheit()
41
42 print(f'{reamur.temp} derajat Reamur = {celsius} derajat Celcius')
43 print(f'{reamur.temp} derajat Reamur = {kelvin} derajat Kelvin')
44 print(f'{reamur.temp} derajat Reamur = {fahrenheit} derajat Fahrenheit\n')
```

The terminal output shows the execution of the script, displaying the conversion results for 30 degrees Reamur:

```
PS C:\Users\SEVA\Documents\PBO_S4_SHV> & C:/Users/SEVA/AppData/Local/Programs/Python/Python310/python.exe "c:/Users/SEVA/Documen
ts/PBO_S4_SHV/Praktikum 1/KonversiTemperatur.py"
30 derajat Fahrenheit = -1 derajat Celcius
30 derajat Fahrenheit = 272 derajat Kelvin
30 derajat Fahrenheit = 0 derajat Reamur

30 derajat Reamur = 37.5 derajat Celcius
```


