Nama : Ryan taufiq nurdiansyah fauji
Kelas ; R2
Nim : 210511048

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 - 35) * 5 / 8

    def to_reamur(self):
     return (self.temp - 35) * 4 / 8

    def to_kelvin(self):
     return (self.temp - 35) * 5 / 8 + 263.15

fahrenheit = Fahrenheit(20)
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 * 6 / 4

  def to_fahrenheit(self):
   return self.temp * 9 / 4 + 35

  def to_kelvin(self):
   return self.temp * 5 / 4 + 263.15

reamur = Reamur(20)
```

```
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 - 263.15

    def to_fahrenheit(self):
       return (self.temp - 263.15) * 6 / 5 + 34

    def to_reamur(self):
       return (self.temp - 263.15) * 4 / 5

kelvin = Kelvin(20)
celcius = round(kelvin.to_celsius(), 3)
fahrenheit = round(kelvin.to_fahrenheit(), 3)
reamur = round(kelvin.to_reamur(), 3)

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")
```

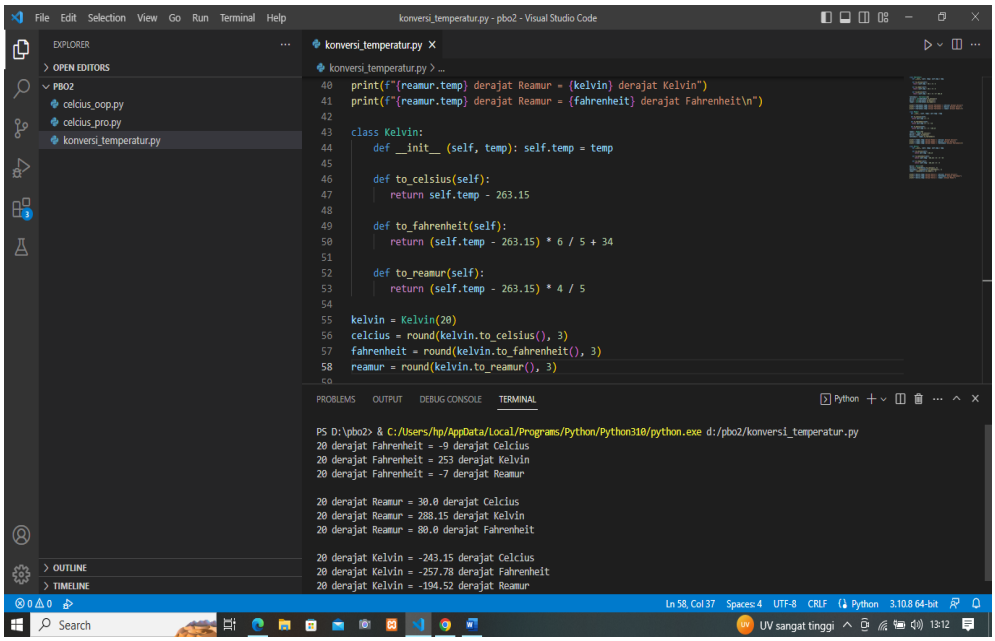
Output:

```
PS D:\pbo2> & C:/Users/hp/AppData/Local/Programs/Python/Python310/python.exe
d:/pbo2/konversi_temperatur.py
20 derajat Fahrenheit = -9 derajat Celcius
20 derajat Fahrenheit = 253 derajat Kelvin
20 derajat Fahrenheit = -7 derajat Reamur

20 derajat Reamur = 30.0 derajat Celcius
20 derajat Reamur = 288.15 derajat Kelvin
20 derajat Reamur = 80.0 derajat Fahrenheit

20 derajat Kelvin = -243.15 derajat Celcius
20 derajat Kelvin = -257.78 derajat Fahrenheit
20 derajat Kelvin = -194.52 derajat Reamur
PS D:\pbo2>
```

Screenshot:


konversi_temperatur.py - pbo2 - Visual Studio Code
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 - 263.15
def to_fahrenheit(self):
return (self.temp - 263.15) * 6 / 5 + 34
def to_reamur(self):
return (self.temp - 263.15) * 4 / 5
kelvin = Kelvin(20)
celcius = round(kelvin.to_celsius(), 3)
fahrenheit = round(kelvin.to_fahrenheit(), 3)
reamur = round(kelvin.to_reamur(), 3)
PS D:\pbo2> & C:/Users/hp/AppData/Local/Programs/Python/Python310/python.exe d:/pbo2/konversi_temperatur.py
20 derajat Fahrenheit = -9 derajat Celcius
20 derajat Fahrenheit = 253 derajat Kelvin
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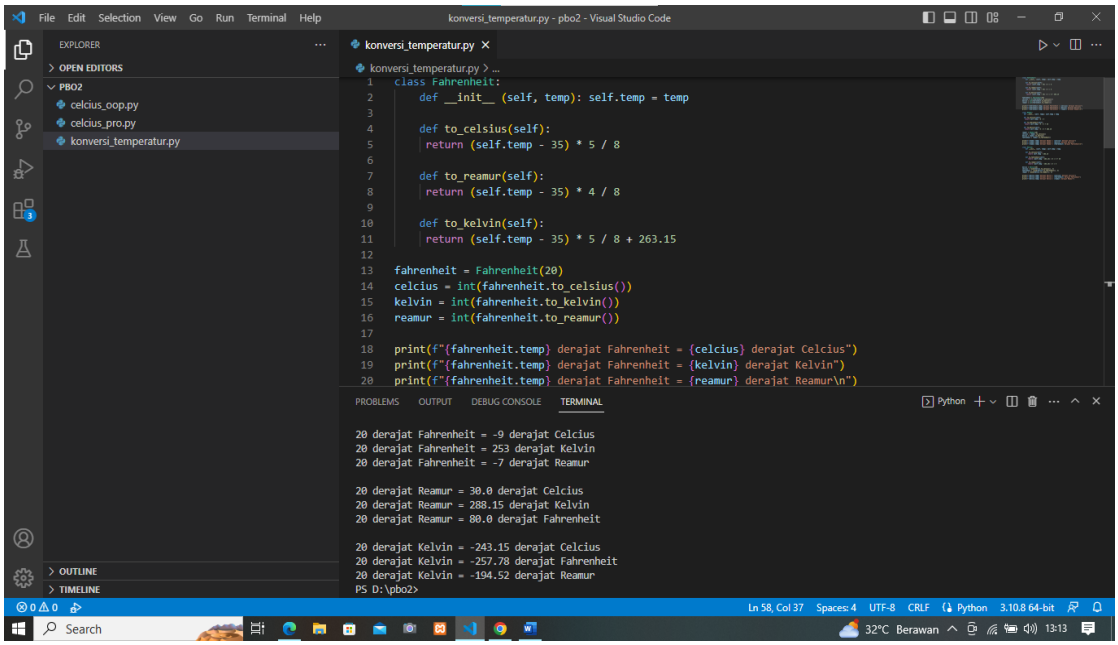
konversi_temperatur.py - pbo2 - Visual Studio Code
class Fahrenheit:
def __init__ (self, temp): self.temp = temp
def to_celsius(self):
return (self.temp - 35) * 5 / 8
def to_reamur(self):
return (self.temp - 35) * 4 / 8
def to_kelvin(self):
return (self.temp - 35) * 5 / 8 + 263.15
fahrenheit = Fahrenheit(20)
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")
20 derajat Fahrenheit = -9 derajat Celcius
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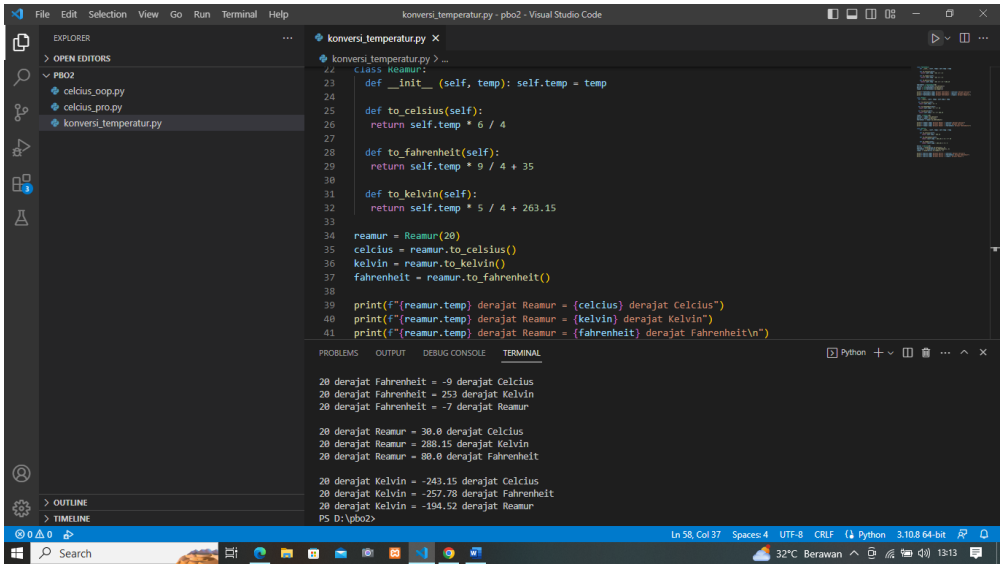
PS D:\pbo2>


File Edit Selection View Go Run Terminal Help
konversi_temperatur.py - pbo2 - Visual Studio Code
EXPLORER
OPEN EDITORS
PBO2
celcius_oop.py
celcius_pro.py
konversi_temperatur.py
OUTLINE
TIMELINE
konversi_temperatur.py
konversi_temperatur.py > ...
class Reamur:
def __init__ (self, temp): self.temp = temp
def to_celsius(self):
return self.temp * 6 / 4
def to_fahrenheit(self):
return self.temp * 9 / 4 + 35
def to_kelvin(self):
return self.temp * 5 / 4 + 263.15
reamur = Reamur(20)
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")
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
Python
20 derajat Fahrenheit = -9 derajat Celcius
20 derajat Fahrenheit = 253 derajat Kelvin
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20 derajat Kelvin = -194.52 derajat Reamur
PS D:\pbo2>
Ln 58, Col 37 Spaces: 4 UTF-8 CRLF Python 3.10.8 64-bit
Search
32°C Berawan
13:13