UNIVERSITAS MUHAMMADIYAH CIREBON

LAPORAN PRAKTIKUM

PEMROGRAMAN BERORIENTASI OBJEK LANJUT

2023

Prepared By:

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210510003

D3

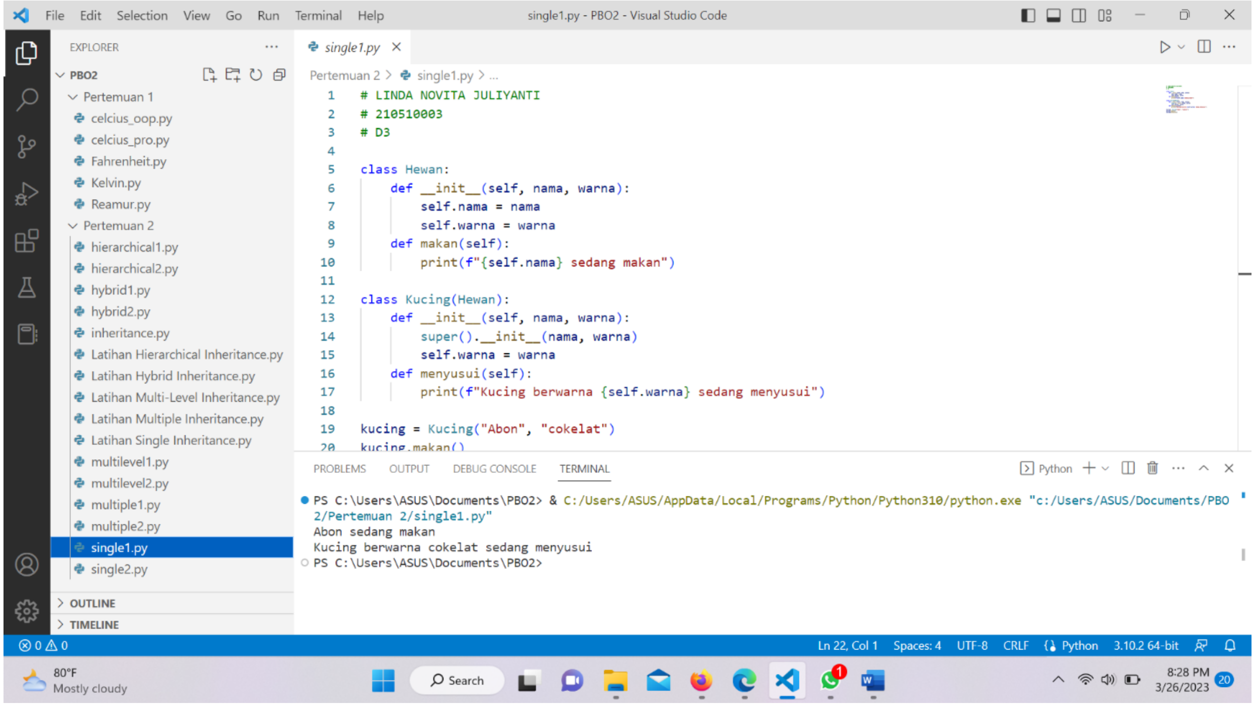
Praktikum :

1. Buatlah masing-masing 2 contoh jenis pewarisan di luar dari contoh yang telah diberikan, beri nama:
   single1.py, single2.py,
   multiple1.py, multiple2.py,
   hierarchical1.py, hierarchical2.py,
   multilevel1.py, multilevel2,
   hybrid1.py, hybrid2.py

Jawaban Praktikum :

1. Script single1.py dan single2.py

```
Single1.py

# LINDA NOVITA JULIYANTI
# 210510003
# D3

class Hewan:
    def __init__(self, nama, warna):
        self.nama = nama
        self.warna = warna
    def makan(self):
        print(f"{self.nama} sedang makan")

class Kucing(Hewan):
    def __init__(self, nama, warna):
        super().__init__(nama, warna)
        self.warna = warna
    def menyusui(self):
        print(f"Kucing berwarna {self.warna} sedang menyusui")

kucing = Kucing("Abon", "cokelat")
kucing.makan()
kucing.menyusui()
```

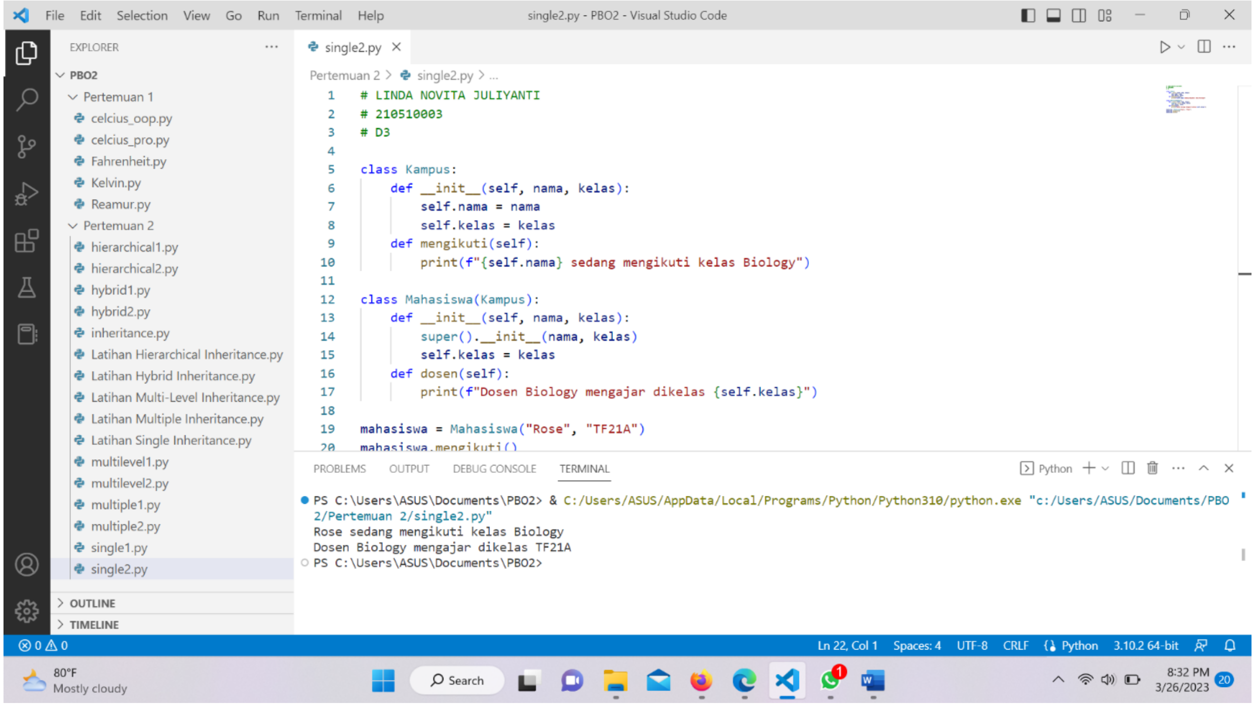


```
# LINDA NOVITA JULIYANTI
# 210510003
# D3

class Hewan:
    def __init__(self, nama, warna):
        self.nama = nama
        self.warna = warna
    def makan(self):
        print(f"{self.nama} sedang makan")

class Kucing(Hewan):
    def __init__(self, nama, warna):
        super().__init__(nama, warna)
        self.warna = warna
    def menyusui(self):
        print(f"Kucing berwarna {self.warna} sedang menyusui")

kucing = Kucing("Abon", "cokelat")
kucing.makan()
```

```
PS C:\Users\ASUS\Documents\PBO2> & C:/Users/ASUS/AppData/Local/Programs/Python/Python310/python.exe "c:/Users/ASUS/Documents/PBO
2/Pertemuan 2/single1.py"
Abon sedang makan
Kucing berwarna cokelat sedang menyusui
PS C:\Users\ASUS\Documents\PBO2>
```

Single2.py

```
# LINDA NOVITA JULIYANTI
# 210510003
# D3

class Kampus:
    def __init__(self, nama, kelas):
        self.nama = nama
        self.kelas = kelas
    def mengikuti(self):
        print(f"{self.nama} sedang mengikuti kelas Biology")

class Mahasiswa(Kampus):
    def __init__(self, nama, kelas):
        super().__init__(nama, kelas)
        self.kelas = kelas
    def dosen(self):
        print(f"Dosen Biology mengajar dikelas {self.kelas}")

mahasiswa = Mahasiswa("Rose", "TF21A")
mahasiswa.mengikuti()
mahasiswa.dosen()
```



```
# LINDA NOVITA JULIYANTI
# 210510003
# D3

class Kampus:
    def __init__(self, nama, kelas):
        self.nama = nama
        self.kelas = kelas
    def mengikuti(self):
        print(f"{self.nama} sedang mengikuti kelas Biology")

class Mahasiswa(Kampus):
    def __init__(self, nama, kelas):
        super().__init__(nama, kelas)
        self.kelas = kelas
    def dosen(self):
        print(f"Dosen Biology mengajar dikelas {self.kelas}")

mahasiswa = Mahasiswa("Rose", "TF21A")
mahasiswa.mengikuti()
```

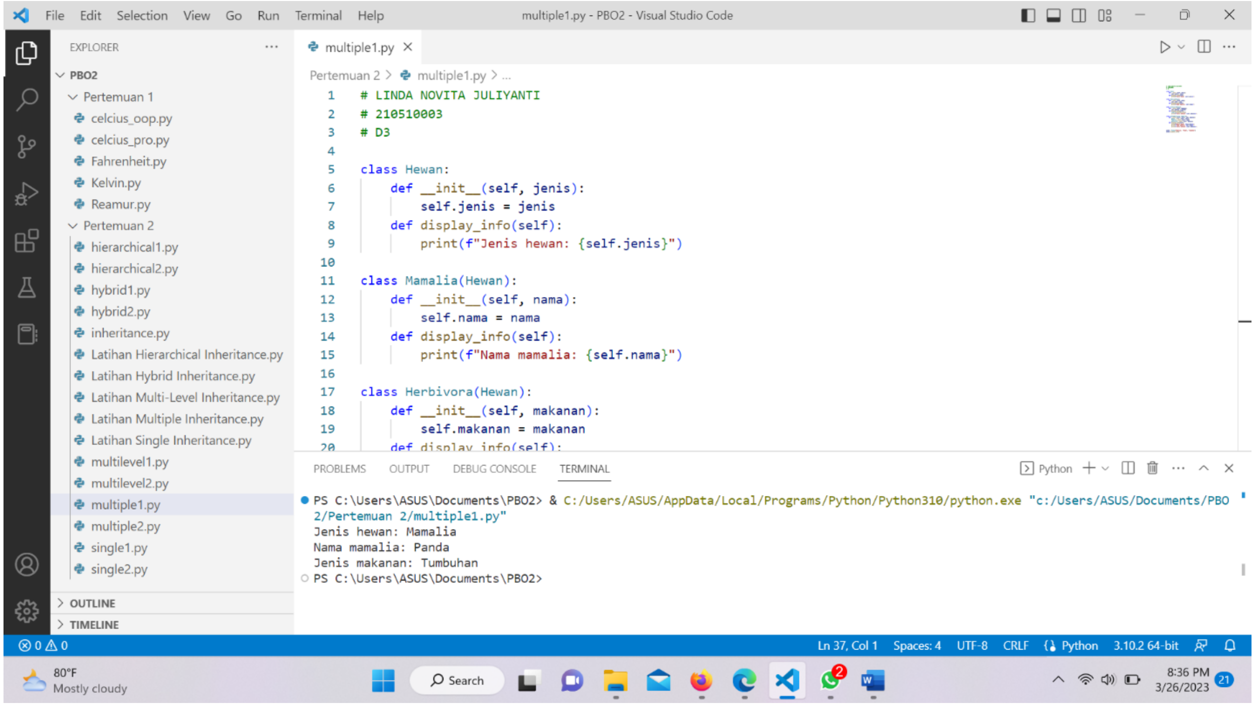
```
PS C:\Users\ASUS\Documents\PBO2> & C:/Users/ASUS/AppData/Local/Programs/Python/Python310/python.exe "c:/Users/ASUS/Documents/PBO
2/Pertemuan 2/single2.py"
Rose sedang mengikuti kelas Biology
Dosen Biology mengajar dikelas TF21A
PS C:\Users\ASUS\Documents\PBO2>
```

2. Script multiple1.py dan multiple2.py

Multiple1.py

```
# LINDA NOVITA JULIYANTI
# 210510003
# D3

class Hewan:
    def __init__(self, jenis):
        self.jenis = jenis
    def display_info(self):
        print(f"Jenis hewan: {self.jenis}")

class Mamalia(Hewan):
    def __init__(self, nama):
        self.nama = nama
    def display_info(self):
        print(f"Nama mamalia: {self.nama}")

class Herbivora(Hewan):
    def __init__(self, makanan):
        self.makanan = makanan
    def display_info(self):
        super().display_info()
```

```python
        print(f"Jenis makanan: {self.makanan}")

class Panda(Herbivora, Mamalia):
    def __init__(self, jenis, nama, makanan):
        Hewan.__init__(self, jenis)
        Mamalia.__init__(self, nama)
        Herbivora.__init__(self, makanan)
    def display_info(self):
        print(f"Jenis hewan: {self.jenis}")
        print(f"Nama mamalia: {self.nama}")
        print(f"Jenis makanan: {self.makanan}")


panda = Panda("Mamalia", "Panda", "Tumbuhan")
panda.display_info()
```

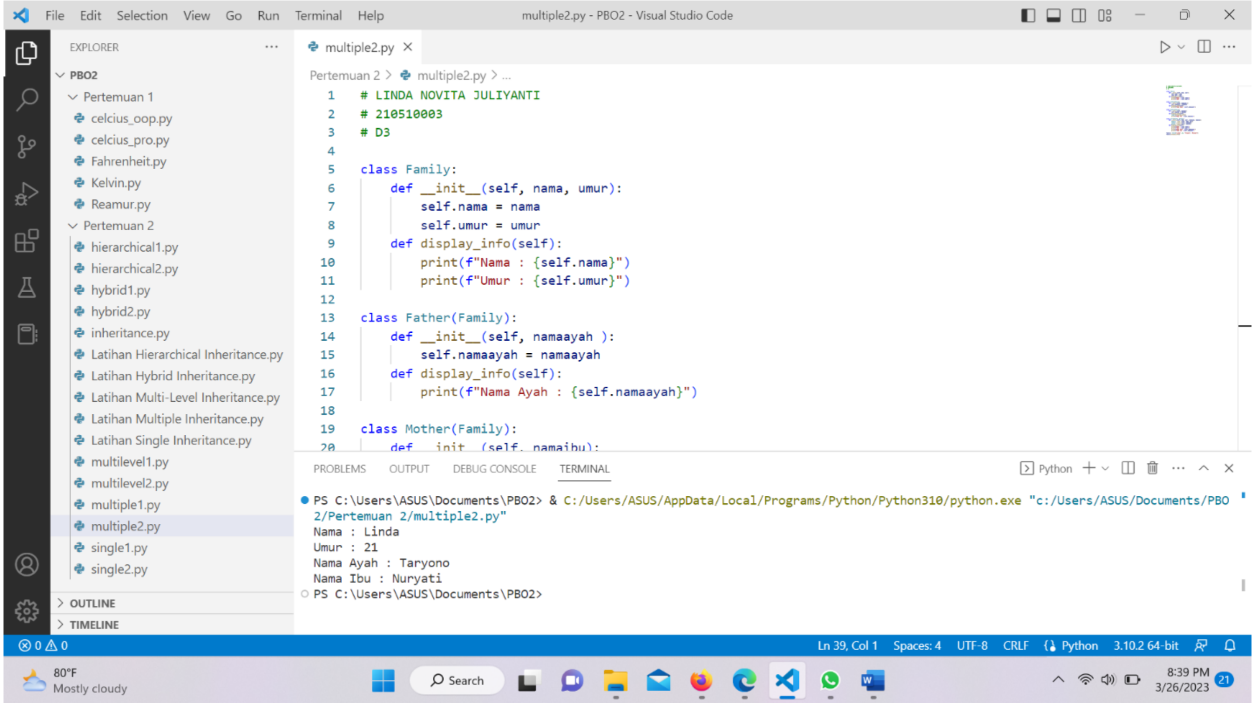


```python
# LINDA NOVITA JULIYANTI
# 210510003
# D3

class Hewan:
    def __init__(self, jenis):
        self.jenis = jenis
    def display_info(self):
        print(f"Jenis hewan: {self.jenis}")

class Mamalia(Hewan):
    def __init__(self, nama):
        self.nama = nama
    def display_info(self):
        print(f"Nama mamalia: {self.nama}")

class Herbivora(Hewan):
    def __init__(self, makanan):
        self.makanan = makanan
    def display_info(self):
```

```
PS C:\Users\ASUS\Documents\PBO2> & C:/Users/ASUS/AppData/Local/Programs/Python/Python310/python.exe "c:/Users/ASUS/Documents/PBO
2/Pertemuan 2/multiple1.py"
Jenis hewan: Mamalia
Nama mamalia: Panda
Jenis makanan: Tumbuhan
PS C:\Users\ASUS\Documents\PBO2>
```

Multiple2.py

```python
# LINDA NOVITA JULIYANTI
# 210510003
# D3

class Family:
    def __init__(self, nama, umur):
        self.nama = nama
        self.umur = umur
    def display_info(self):
        print(f"Nama : {self.nama}")
        print(f"Umur : {self.umur}")

class Father(Family):
    def __init__(self, namaayah ):
        self.namaayah = namaayah
    def display_info(self):
        print(f"Nama Ayah : {self.namaayah}")

class Mother(Family):
    def __init__(self, namaibu):
        self.namaibu = namaibu
    def display_info(self):
        super().display_info()
        print(f"Nama Ibu : {self.namaibu}")

class Child(Father, Mother):
    def __init__(self, nama, umur, namaayah, namaibu):
        Family.__init__(self, nama, umur)
        Father.__init__(self, namaayah)
        Mother.__init__(self, namaibu)
    def display_info(self):
        print(f"Nama : {self.nama}")
        print(f"Umur : {self.umur}")
        print(f"Nama Ayah : {self.namaayah}")
        print(f"Nama Ibu : {self.namaibu}")

family = Child("Linda", 21, "Taryono", "Nuryati")
family.display_info()
```



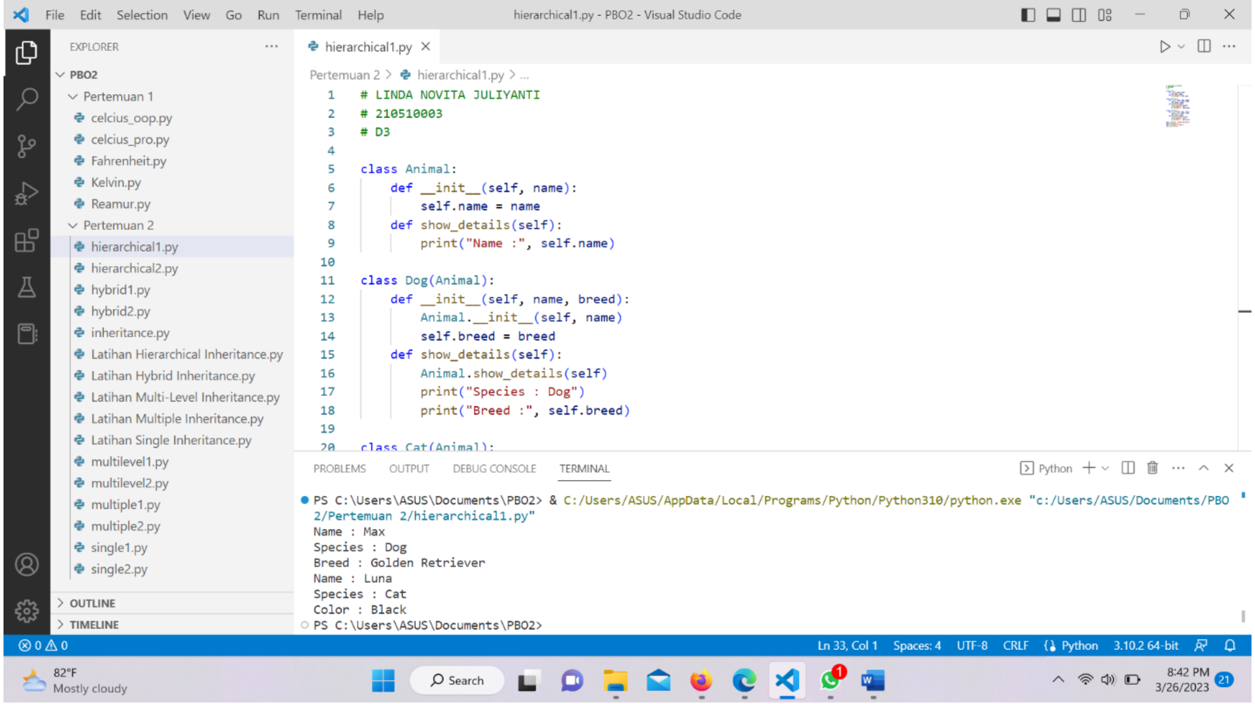
```
# LINDA NOVITA JULIYANTI
# 210510003
# D3

class Family:
    def __init__(self, nama, umur):
        self.nama = nama
        self.umur = umur
    def display_info(self):
        print(f"Nama : {self.nama}")
        print(f"Umur : {self.umur}")

class Father(Family):
    def __init__(self, namaayah ):
        self.namaayah = namaayah
    def display_info(self):
        print(f"Nama Ayah : {self.namaayah}")

class Mother(Family):
    def __init__(self, namaibu):
```

```
PS C:\Users\ASUS\Documents\PBO2> & C:/Users/ASUS/AppData/Local/Programs/Python/Python310/python.exe "c:/Users/ASUS/Documents/PBO
2/Pertemuan 2/multiple2.py"
Nama : Linda
Umur : 21
Nama Ayah : Taryono
Nama Ibu : Nuryati
PS C:\Users\ASUS\Documents\PBO2>
```

3. Script hierarchical1.py dan hierarchical2.py

Hierarchical1.py

```
# LINDA NOVITA JULIYANTI
# 210510003
# D3

class Animal:
    def __init__(self, name):
        self.name = name
    def show_details(self):
        print("Name :", self.name)

class Dog(Animal):
    def __init__(self, name, breed):
        Animal.__init__(self, name)
        self.breed = breed
    def show_details(self):
        Animal.show_details(self)
        print("Species : Dog")
        print("Breed :", self.breed)

class Cat(Animal):
    def __init__(self, name, color):
        Animal.__init__(self, name)
        self.color = color
    def show_details(self):
        Animal.show_details(self)
        print("Species : Cat")
        print("Color :", self.color)

dog = Dog("Max", "Golden Retriever")
dog.show_details()
cat = Cat("Luna", "Black")
cat.show_details()
```

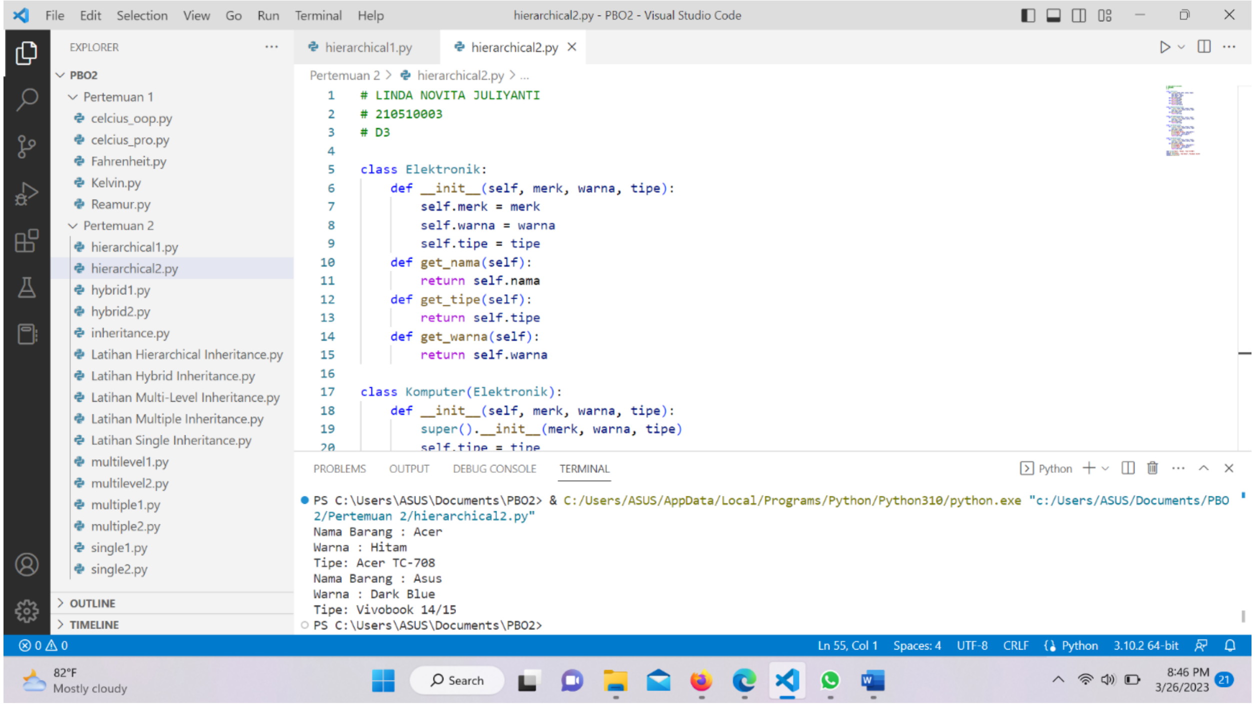


```
# LINDA NOVITA JULIYANTI
# 210510003
# D3

class Animal:
    def __init__(self, name):
        self.name = name
    def show_details(self):
        print("Name :", self.name)

class Dog(Animal):
    def __init__(self, name, breed):
        Animal.__init__(self, name)
        self.breed = breed
    def show_details(self):
        Animal.show_details(self)
        print("Species : Dog")
        print("Breed :", self.breed)

class Cat(Animal):
```

```
PS C:\Users\ASUS\Documents\PBO2> & C:/Users/ASUS/AppData/Local/Programs/Python/Python310/python.exe "c:/Users/ASUS/Documents/PBO
2/Pertemuan 2/hierarchical1.py"
Name : Max
Species : Dog
Breed : Golden Retriever
Name : Luna
Species : Cat
Color : Black
PS C:\Users\ASUS\Documents\PBO2>
```

Hierarchical2.py

```
# LINDA NOVITA JULIYANTI
# 210510003
# D3

class Elektronik:
    def __init__(self, merk, warna, tipe):
        self.merk = merk
        self.warna = warna
        self.tipe = tipe
    def get_nama(self):
        return self.nama
    def get_tipe(self):
        return self.tipe
    def get_warna(self):
        return self.warna

class Komputer(Elektronik):
    def __init__(self, merk, warna, tipe):
        super().__init__(merk, warna, tipe)
        self.tipe = tipe
    def get_tipe(self):
        return self.tipe

class Laptop(Elektronik):
    def __init__(self, merk, warna, tipe):
        super().__init__(merk, warna, tipe)
        self.tipe = tipe
    def get_tipe(self):
        return self.tipe

class Acer(Elektronik):
    def __init__(self, merk, warna, tipe):
        super().__init__(merk, warna, tipe)
        self.tipe = tipe
    def get_details(self):
        print(f"Nama Barang : {self.merk}")
        print(f"Warna : {self.warna}")
        print(f"Tipe: {self.tipe}")
        return self.tipe

class Asus(Elektronik):
    def __init__(self, merk, warna, tipe):
        super().__init__(merk, warna, tipe)
        self.tipe = tipe
    def get_details(self):
        print(f"Nama Barang : {self.merk}")
        print(f"Warna : {self.warna}")
        print(f"Tipe: {self.tipe}")
        return self.tipe

comp = Acer("Acer", "Hitam", "Acer TC-708")
comp.get_details()
laptop = Asus("Asus", "Dark Blue", "Vivobook 14/15")
laptop.get_details()
```

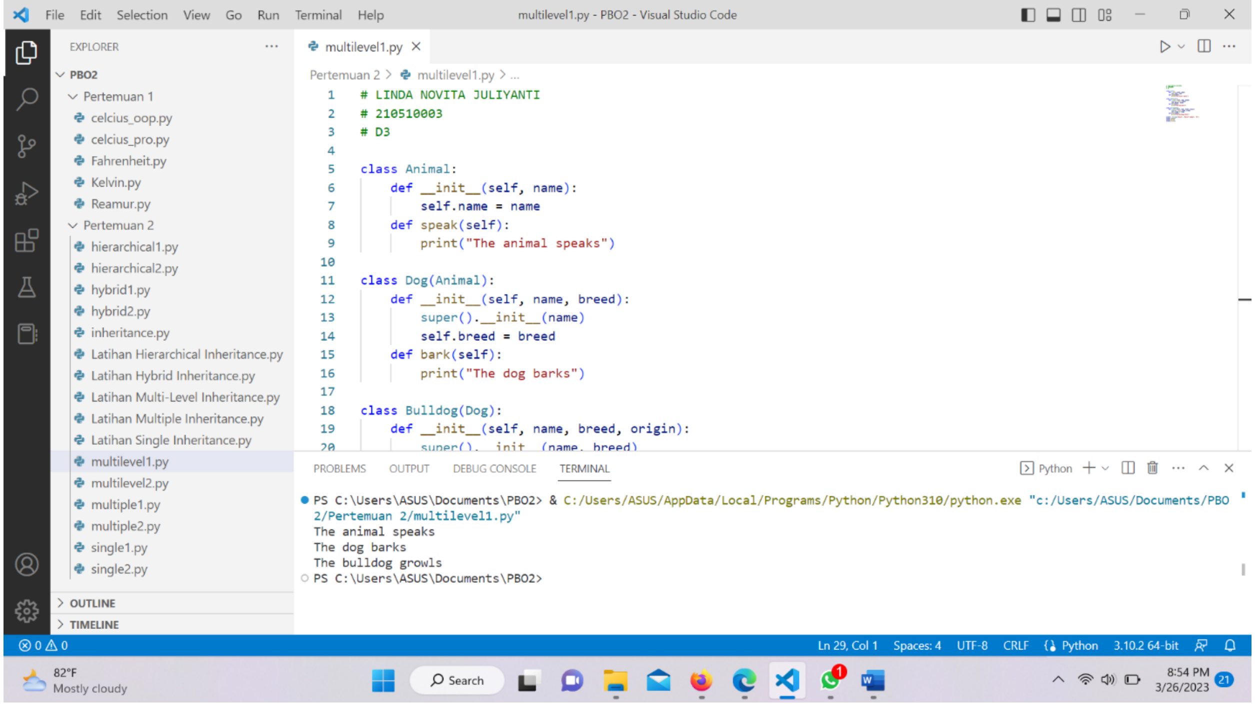


```python
# LINDA NOVITA JULIYANTI
# 210510003
# D3

class Elektronik:
    def __init__(self, merk, warna, tipe):
        self.merk = merk
        self.warna = warna
        self.tipe = tipe
    def get_nama(self):
        return self.nama
    def get_tipe(self):
        return self.tipe
    def get_warna(self):
        return self.warna

class Komputer(Elektronik):
    def __init__(self, merk, warna, tipe):
        super().__init__(merk, warna, tipe)
        self.tipe = tipe
```

```
PS C:\Users\ASUS\Documents\PBO2> & C:/Users/ASUS/AppData/Local/Programs/Python/Python310/python.exe "c:/Users/ASUS/Documents/PBO
2/Pertemuan 2/hierarchical2.py"
Nama Barang : Acer
Warna : Hitam
Tipe: Acer TC-708
Nama Barang : Asus
Warna : Dark Blue
Tipe: Vivobook 14/15
PS C:\Users\ASUS\Documents\PBO2>
```

4. Script multilevel1.py dan multilevel2.py

```python
Multilevel1.py

# LINDA NOVITA JULIYANTI
# 210510003
# D3

class Animal:
    def __init__(self, name):
        self.name = name
    def speak(self):
        print("The animal speaks")

class Dog(Animal):
    def __init__(self, name, breed):
        super().__init__(name)
        self.breed = breed
    def bark(self):
        print("The dog barks")

class Bulldog(Dog):
    def __init__(self, name, breed, origin):
        super().__init__(name, breed)
        self.origin = origin
    def growl(self):
        print("The bulldog growls")

animal = Bulldog("Basset", "Mastiff Combat", "UK")
animal.speak()
animal.bark()
animal.growl()
```

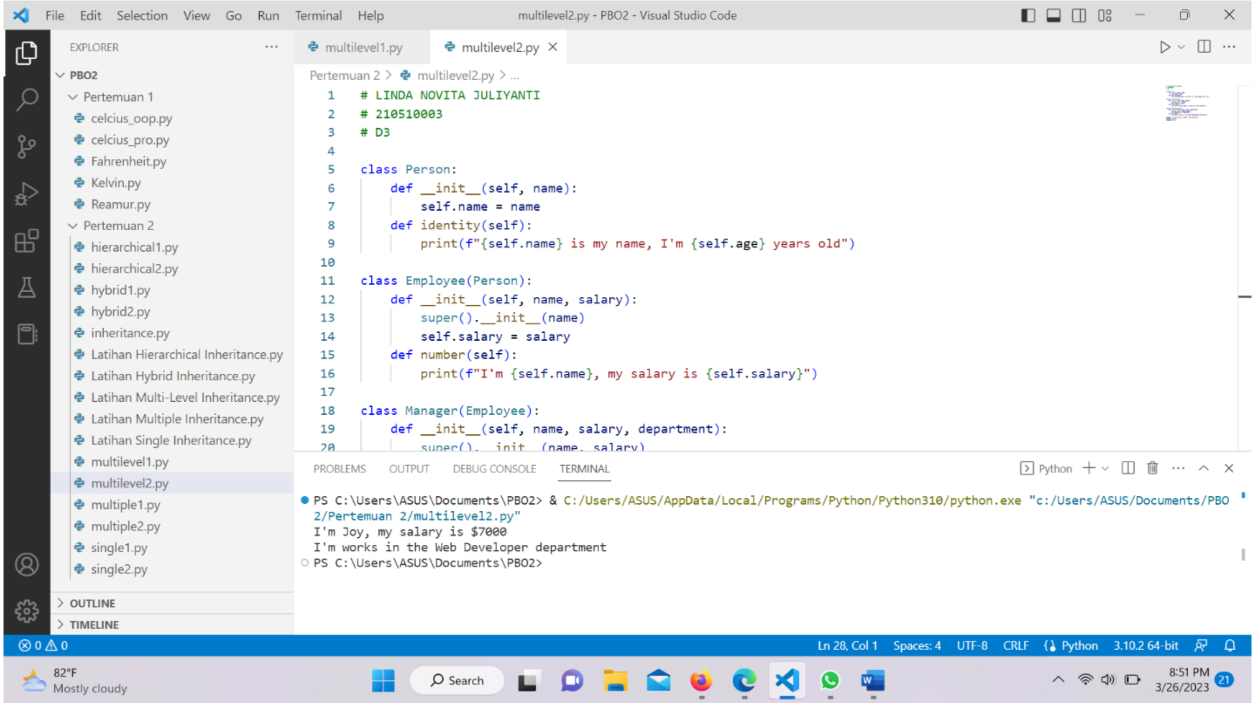


```python
# LINDA NOVITA JULIYANTI
# 210510003
# D3

class Animal:
    def __init__(self, name):
        self.name = name
    def speak(self):
        print("The animal speaks")

class Dog(Animal):
    def __init__(self, name, breed):
        super().__init__(name)
        self.breed = breed
    def bark(self):
        print("The dog barks")

class Bulldog(Dog):
    def __init__(self, name, breed, origin):
        super().__init__(name, breed)
```

```
PS C:\Users\ASUS\Documents\PBO2> & C:/Users/ASUS/AppData/Local/Programs/Python/Python310/python.exe "c:/Users/ASUS/Documents/PBO
2/Pertemuan 2/multilevel1.py"
The animal speaks
The dog barks
The bulldog growls
PS C:\Users\ASUS\Documents\PBO2>
```

Multilevel2.py

```python
# LINDA NOVITA JULIYANTI
# 210510003
# D3

class Person:
    def __init__(self, name):
        self.name = name
    def identity(self):
        print(f"{self.name} is my name, I'm {self.age} years old")

class Employee(Person):
    def __init__(self, name, salary):
        super().__init__(name)
        self.salary = salary
    def number(self):
        print(f"I'm {self.name}, my salary is {self.salary}")

class Manager(Employee):
    def __init__(self, name, salary, department):
        super().__init__(name, salary)
        self.department = department
    def work(self):
        print(f"I'm works in the {self.department} department")

manager = Manager("Joy", "$7000", "Web Developer")
manager.number()
manager.work()
```



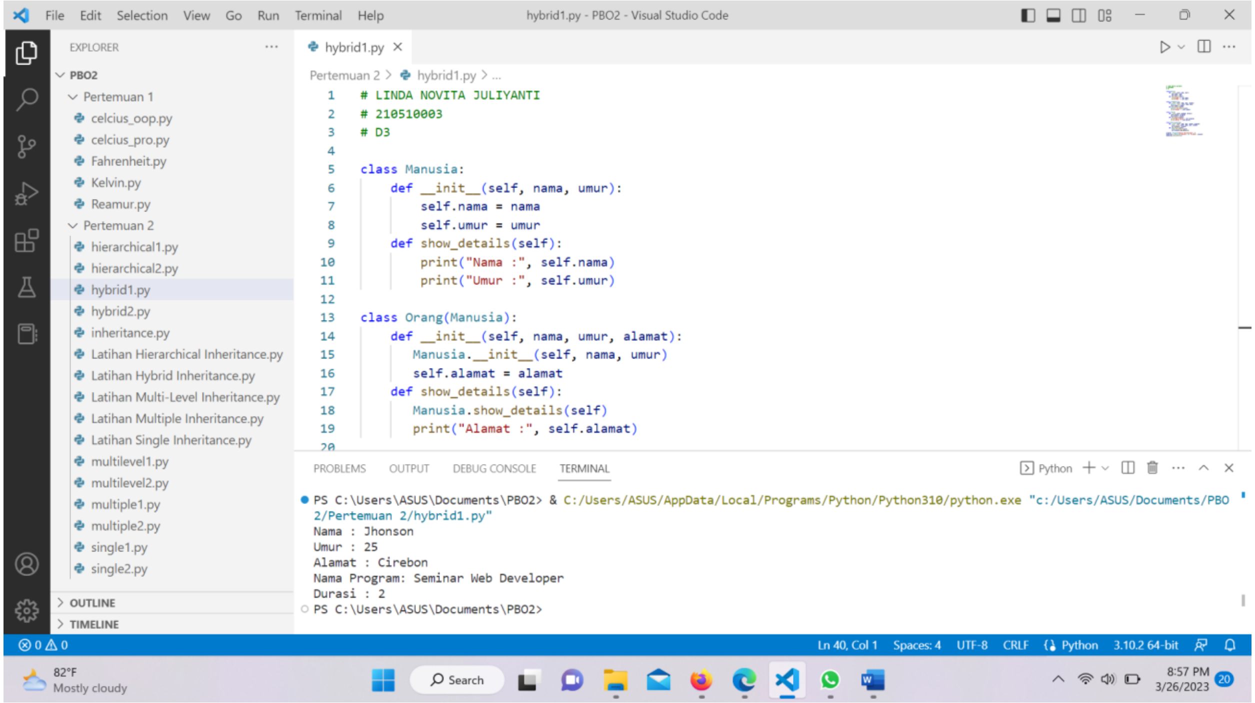
```
# LINDA NOVITA JULIYANTI
# 210510003
# D3

class Person:
    def __init__(self, name):
        self.name = name
    def identity(self):
        print(f"{self.name} is my name, I'm {self.age} years old")

class Employee(Person):
    def __init__(self, name, salary):
        super().__init__(name)
        self.salary = salary
    def number(self):
        print(f"I'm {self.name}, my salary is {self.salary}")

class Manager(Employee):
    def __init__(self, name, salary, department):
        super().__init__(name, salary)
```

```
PS C:\Users\ASUS\Documents\PBO2> & C:/Users/ASUS/AppData/Local/Programs/Python/Python310/python.exe "c:/Users/ASUS/Documents/PBO
2/Pertemuan 2/multilevel2.py"
I'm Joy, my salary is $7000
I'm works in the Web Developer department
PS C:\Users\ASUS\Documents\PBO2>
```

5. Script hybrid1.py dan hybrid2.py

Hybrid1.py

```
# LINDA NOVITA JULIYANTI
# 210510003
# D3

class Manusia:
    def __init__(self, nama, umur):
        self.nama = nama
        self.umur = umur
    def show_details(self):
        print("Nama :", self.nama)
        print("Umur :", self.umur)

class Orang(Manusia):
    def __init__(self, nama, umur, alamat):
       Manusia.__init__(self, nama, umur)
       self.alamat = alamat
    def show_details(self):
       Manusia.show_details(self)
       print("Alamat :", self.alamat)

class Program:
    def __init__(self, program, durasi):
       self.program = program
       self.durasi = durasi
    def show_details(self):
       print("Nama Program:", self.program)
       print("Durasi :", self.durasi)

class Mahasiswa(Orang):
    def __init__(self, nama, umur, alamat, program):
        Orang.__init__(self, nama, umur, alamat)
        self.program = program
    def show_details(self):
        Orang.show_details(self)
        self.program.show_details()

program = Program("Seminar Web Developer", 2)
mahasiswa = Mahasiswa("Jhonson", 25, "Cirebon", program)
mahasiswa.show_details()
```

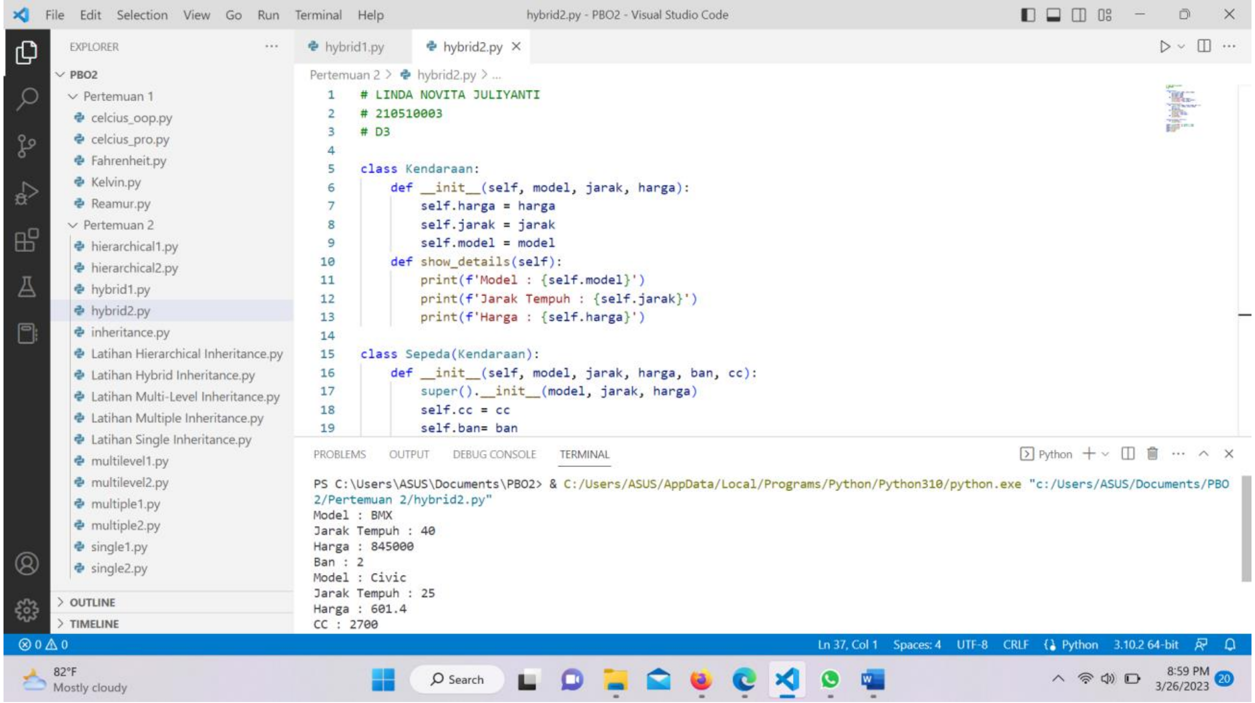

File Edit Selection View Go Run Terminal Help
hybrid1.py - PBO2 - Visual Studio Code
EXPLORER
PBO2
Pertemuan 1
celcius_oop.py
celcius_pro.py
Fahrenheit.py
Kelvin.py
Reamur.py
Pertemuan 2
hierarchical1.py
hierarchical2.py
hybrid1.py
hybrid2.py
inheritance.py
Latihan Hierarchical Inheritance.py
Latihan Hybrid Inheritance.py
Latihan Multi-Level Inheritance.py
Latihan Multiple Inheritance.py
Latihan Single Inheritance.py
multilevel1.py
multilevel2.py
multiple1.py
multiple2.py
single1.py
single2.py
OUTLINE
TIMELINE
hybrid1.py
Pertemuan 2 > hybrid1.py > ...
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
Python
Ln 40, Col 1 Spaces: 4 UTF-8 CRLF Python 3.10.2 64-bit
82°F
Mostly cloudy
Search
8:57 PM
3/26/2023

```
# LINDA NOVITA JULIYANTI
# 210510003
# D3

class Manusia:
    def __init__(self, nama, umur):
        self.nama = nama
        self.umur = umur
    def show_details(self):
        print("Nama :", self.nama)
        print("Umur :", self.umur)

class Orang(Manusia):
    def __init__(self, nama, umur, alamat):
       Manusia.__init__(self, nama, umur)
       self.alamat = alamat
    def show_details(self):
       Manusia.show_details(self)
       print("Alamat :", self.alamat)
```

```
PS C:\Users\ASUS\Documents\PBO2> & C:/Users/ASUS/AppData/Local/Programs/Python/Python310/python.exe "c:/Users/ASUS/Documents/PBO
2/Pertemuan 2/hybrid1.py"
Nama : Jhonson
Umur : 25
Alamat : Cirebon
Nama Program: Seminar Web Developer
Durasi : 2
PS C:\Users\ASUS\Documents\PBO2>
```

Hybrid2.py

```
# LINDA NOVITA JULIYANTI
# 210510003
# D3

class Kendaraan:
    def __init__(self, model, jarak, harga):
        self.harga = harga
        self.jarak = jarak
        self.model = model
    def show_details(self):
        print(f'Model : {self.model}')
        print(f'Jarak Tempuh : {self.jarak}')
        print(f'Harga : {self.harga}')

class Sepeda(Kendaraan):
    def __init__(self, model, jarak, harga, ban, cc):
        super().__init__(model, jarak, harga)
        self.cc = cc
        self.ban= ban
    def show_details(self):
        super().show_details()
        print(f'CC : {self.cc}')
        print(f'Ban : {self.ban}')
    def rating(self):
        print('4 star')

class Mobil(Sepeda, Kendaraan):
    def rating(self):
        print('5 star')

sepeda = Sepeda("BMX", 40, 845000, 2, 500)
mobil = Mobil("Civic", 25, 601.4, 4, 2700)
sepeda.show_details()
mobil.show_details()
sepeda.rating()
mobil.rating()
```



```
# LINDA NOVITA JULIYANTI
# 210510003
# D3

class Kendaraan:
    def __init__(self, model, jarak, harga):
        self.harga = harga
        self.jarak = jarak
        self.model = model
    def show_details(self):
        print(f'Model : {self.model}')
        print(f'Jarak Tempuh : {self.jarak}')
        print(f'Harga : {self.harga}')

class Sepeda(Kendaraan):
    def __init__(self, model, jarak, harga, ban, cc):
        super().__init__(model, jarak, harga)
        self.cc = cc
        self.ban= ban
```

```
PS C:\Users\ASUS\Documents\PBO2> & C:/Users/ASUS/AppData/Local/Programs/Python/Python310/python.exe "c:/Users/ASUS/Documents/PBO
2/Pertemuan 2/hybrid2.py"
Model : BMX
Jarak Tempuh : 40
Harga : 845000
Ban : 2
Model : Civic
Jarak Tempuh : 25
Harga : 601.4
CC : 2700
```