

LAPORAN PRAKTIKUM

PEMROGRAMAN BERORIENTASI 10 B 3 EK LANJUT

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Praktikum 2

Buatlah masing-masing 2 contoh jenis pewarisan di luar dari contoh yang telah diberikan, beri nama:

1. single1.py

```
class Orang:
    def __init__(self, nama, umur):
        self.nama = nama
        self.umur = umur

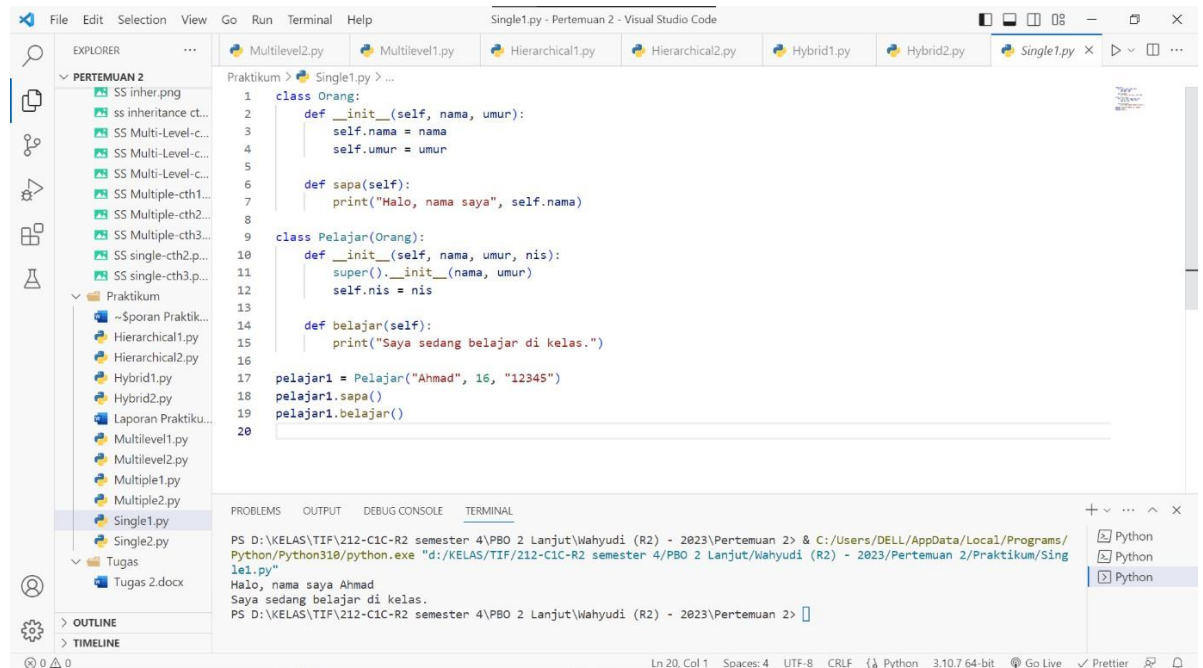
    def sapa(self):
        print("Halo, nama saya", self.nama)

class Pelajar(Orang):
    def __init__(self, nama, umur, nis):
        super().__init__(nama, umur)
        self.nis = nis

    def belajar(self):
        print("Saya sedang belajar di kelas.")

pelajar1 = Pelajar("Ahmad", 16, "12345")
pelajar1.sapa()
pelajar1.belajar()
```

OUTPUT SS



2. single2.py

```
class Orangtua:
    def __init__(self, rambut, umur):
        self.rambut = rambut
        self.umur = umur
    def jenisRambut(self):

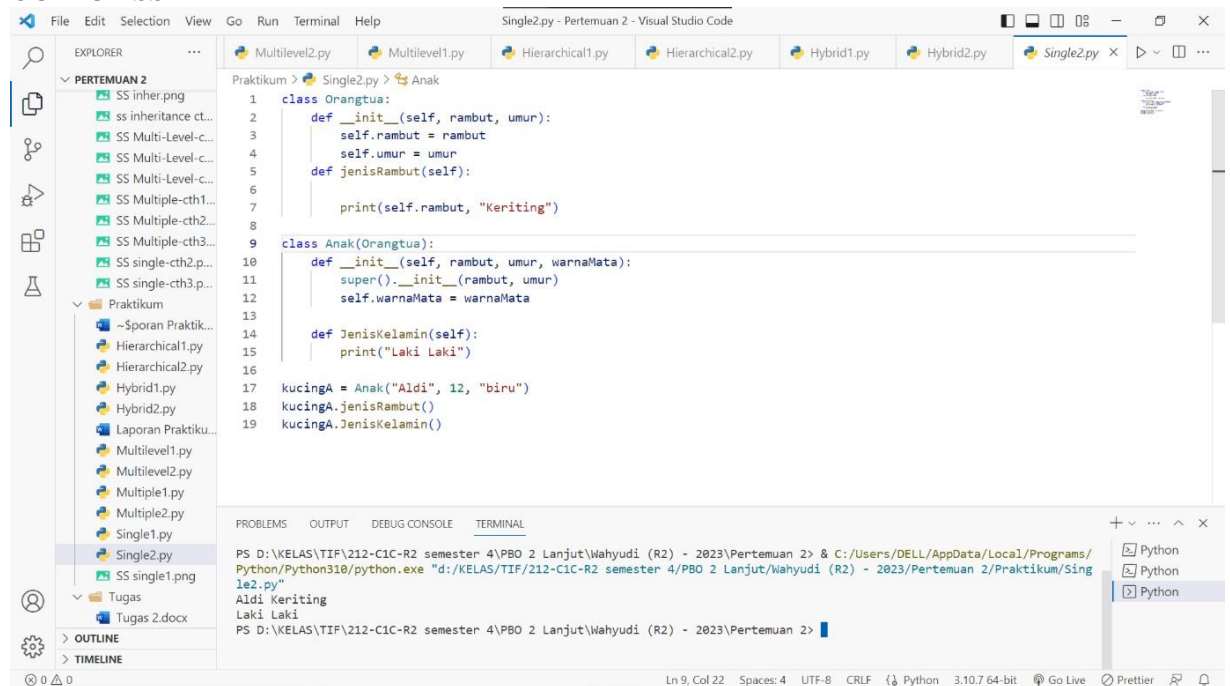
        print(self.rambut, "Keriting")

class Anak(Orangtua):
    def __init__(self, rambut, umur, warnaMata):
        super().__init__(rambut, umur)
        self.warnaMata = warnaMata

    def JenisKelamin(self):
        print("Laki Laki")

kucingA = Anak("Aldi", 12, "biru")
kucingA.jenisRambut()
kucingA.JenisKelamin()
```

OUTPUT SS



3. multiple1.py

```
class Tenaga :
    def setTenaga (self,tenaga):
        self.tenaga = tenaga

    def showTenaga(self):
        print(self.tenaga)
```

```

class Kelompok :
    def setKelompok(self,kelompok):
        self.kelompok = kelompok

    def showKelompok (self):
        print (self.kelompok)

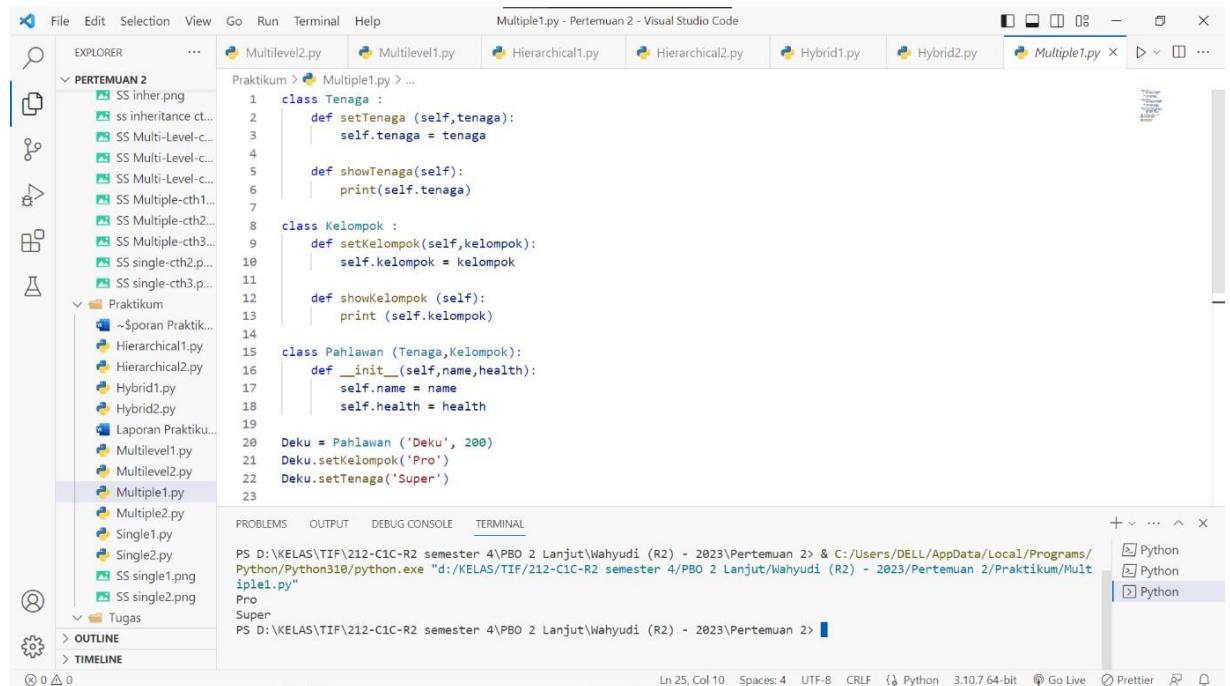
class Pahlawan (Tenaga,Kelompok):
    def __init__(self,name,health):
        self.name = name
        self.health = health

Deku = Pahlawan ('Deku', 200)
Deku.setKelompok('Pro')
Deku.setTenaga('Super')

Deku.showKelompok()
Deku.showTenaga()

```

OUTPUT SS



4. multiple2.py,

```

class Manusia:
    def __init__(self, nama ,umur):
        self.nama = nama
        self.umur = umur

class Penari:
    def __init__(self, style):

```

```

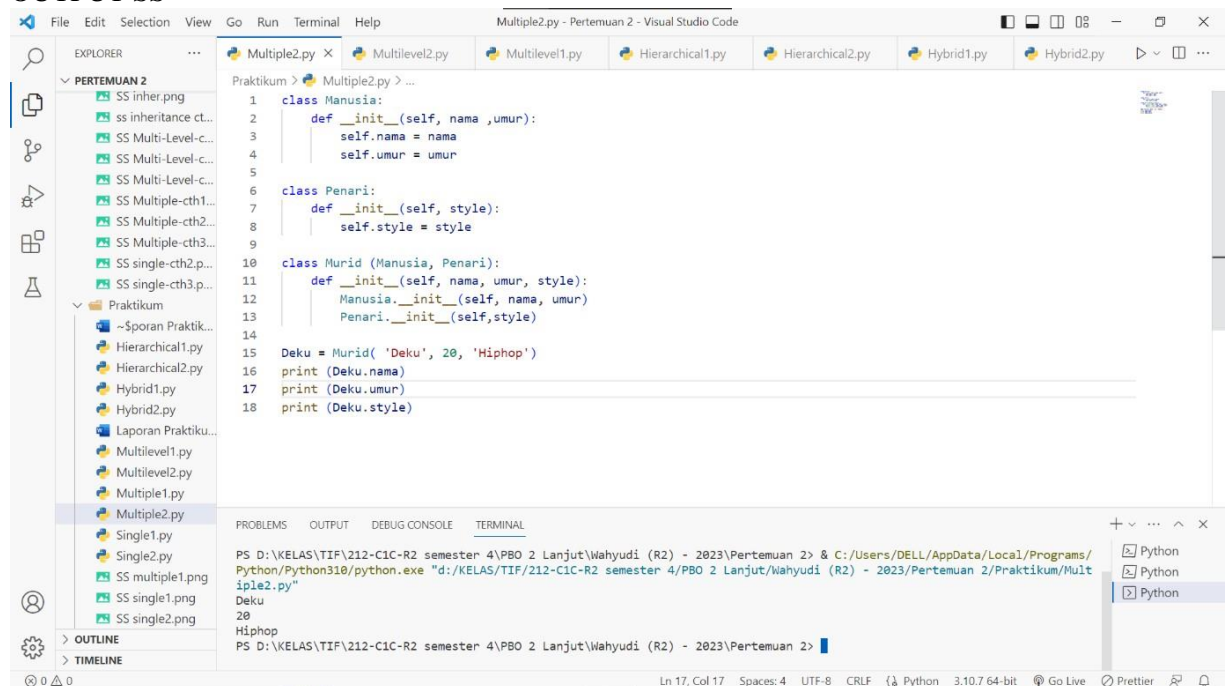
        self.style = style

class Murid (Manusia, Penari):
    def __init__(self, nama, umur, style):
        Manusia.__init__(self, nama, umur)
        Penari.__init__(self,style)

Deku = Murid( 'Deku', 20, 'Hiphop')
print (Deku.nama)
print (Deku.umur)
print (Deku.style)

```

OUTPUT SS



5. hierarchical1.Py

```

class Parent:
    def func1(self):
        print("This function is in parent class.")

class Child1(Parent):
    def func2(self):
        print("This function is in child 1.")

class Child2(Parent):
    def func3(self):

```

```
print("This function is in child 2.")
```

```
# Driver's code
object1 = Child1()
object2 = Child2()
object1.func1()
object1.func2()
object2.func1()
object2.func3()
```

OUTPUT SS

The screenshot shows the Visual Studio Code interface with a project named 'PERTUMUAN 2'. The Explorer panel on the left shows a file tree with various Python files. The main editor displays the code for 'Hierarchical1.py', which defines a 'Parent' class with a 'func1' method, and two child classes, 'Child1' and 'Child2', each with their own methods. The 'Driver's code' at the bottom creates instances of 'Child1' and 'Child2' and calls their methods. The Output panel at the bottom shows the execution results, which match the expected output from the code: 'This function is in parent class.', 'This function is in child 1.', and 'This function is in child 2.'

6. hierarchical2.py

```
class Animal:
    def __init__(self, name):
        self.name = name

    def speak(self):
        print(f"{self.name} speaks.")

class Dog(Animal):
    def __init__(self, name):
        super().__init__(name)

    def speak(self):
        print(f"{self.name} barks.")

class Cat(Animal):
```



```

def __init__(self, name):
    super().__init__(name)

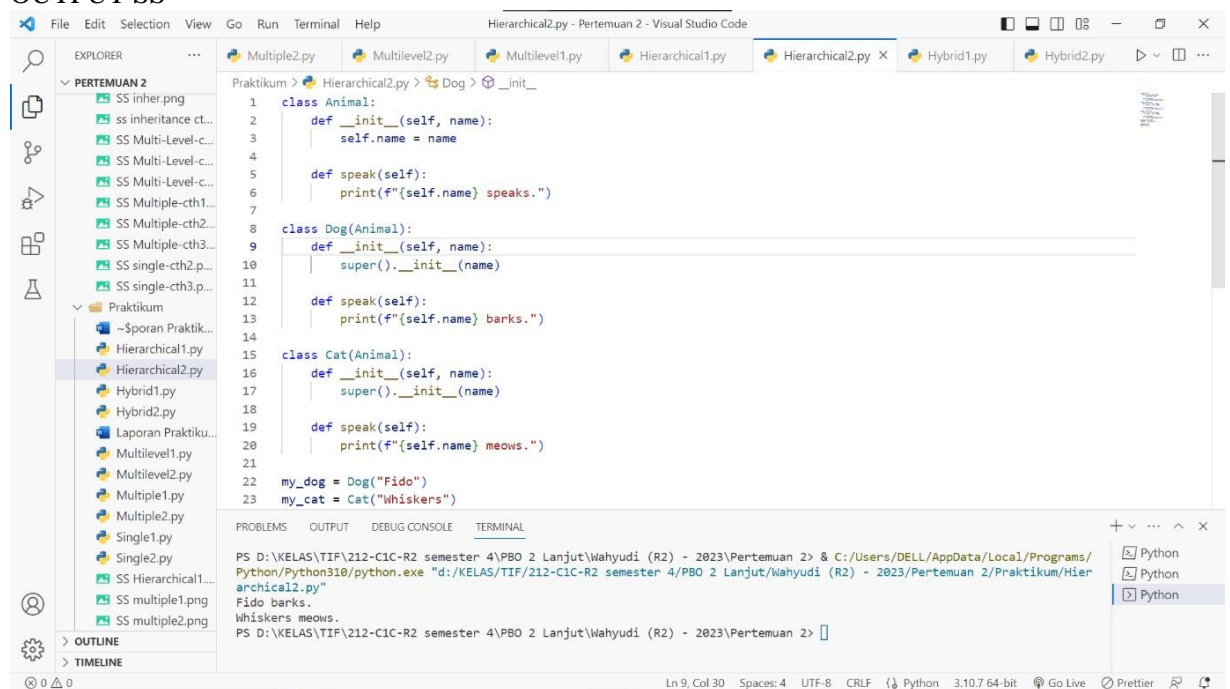
def speak(self):
    print(f"{self.name} meows.")

my_dog = Dog("Fido")
my_cat = Cat("Whiskers")

my_dog.speak()
my_cat.speak()

```

OUTPUT SS



7. multilevel1.py

```

class Animal:
    def __init__(self, species):
        self.species = species

    def eat(self):
        print("The animal is eating.")

class Pet(Animal):
    def __init__(self, name, species):
        super().__init__(species)
        self.name = name

    def play(self):
        print("The pet is playing.")

```

```

class cat(Pet):
    def __init__(self, name, breed):
        super().__init__(name, "Canine")
        self.breed = breed

    def bark(self):
        print("Meow! Meow!")

my_cat = cat("Ane", "Golden Retriever")
print("Species:", my_cat.species)
print("Name:", my_cat.name)
my_cat.eat()
my_cat.play()
my_cat.bark()

```

OUTPUT SS

```

class cat(Pet):
    def __init__(self, name, breed):
        super().__init__(name, "Canine")
        self.breed = breed

    def bark(self):
        print("Meow! Meow!")

my_cat = cat("Ane", "Golden Retriever")
print("Species:", my_cat.species)
print("Name:", my_cat.name)
my_cat.eat()
my_cat.play()
my_cat.bark()

```

OUTPUT:

```

Species: Canine
Name: Ane
The animal is eating.
The pet is playing.
Meow! Meow!

```

8. multilevel2.py

```

class Vehicle:
    def __init__(self, color, wheels):
        self.color = color
        self.wheels = wheels

class Car(Vehicle):
    def __init__(self, color, wheels, speed):
        super().__init__(color, wheels)
        self.speed = speed

```



```

def drive(self):
    print(f"The {self.color} car is driving at {self.speed}
km/h.")

class ElectricCar(Car):
    def __init__(self, color, wheels, speed, battery_capacity):
        super().__init__(color, wheels, speed)
        self.battery_capacity = battery_capacity

    def charge(self):
        print(f"The {self.color} electric car is charging its battery
with {self.battery_capacity} kWh.")

my_electric_car = ElectricCar("blue", 4, 120, 60)
my_electric_car.drive()
my_electric_car.charge()

```

OUTPUT SS

The screenshot shows the Visual Studio Code interface with the file 'Multilevel2.py' open. The code in the editor matches the code block above. The terminal at the bottom shows the output of running the program:

```

PS D:\KELAS\TIF\212-C1C-R2 semester 4\PBO 2 Lanjut\Wahyudi (R2) - 2023\Pertemuan 2> & C:/Users/DELL/AppData/Local/Programs/Python/Python310/python.exe "d:/KELAS/TIF/212-C1C-R2 semester 4/PBO 2 Lanjut/Wahyudi (R2) - 2023/Pertemuan 2/Praktikum/Multilevel2.py"
The blue car is driving at 120 km/h.
The blue electric car is charging its battery with 60 kWh.
PS D:\KELAS\TIF\212-C1C-R2 semester 4\PBO 2 Lanjut\Wahyudi (R2) - 2023\Pertemuan 2>

```

9. hybrid1.py

```

class A:
    def method_a(self):
        print("Method A")

class B(A):
    def method_b(self):
        print("Method B")

class C(A):

```

```

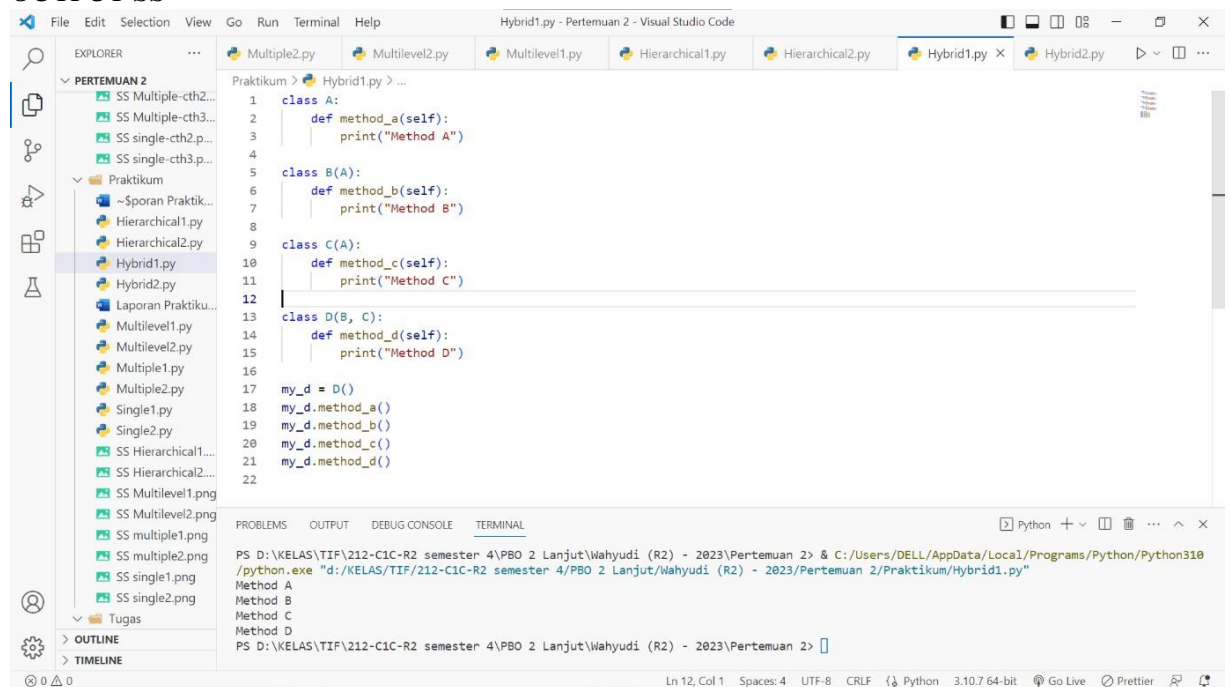
def method_c(self):
    print("Method C")

class D(B, C):
    def method_d(self):
        print("Method D")

my_d = D()
my_d.method_a()
my_d.method_b()
my_d.method_c()
my_d.method_d()

```

OUTPUT SS



10. hybrid2.py

```

class Animal:
    def __init__(self, name):
        self.name = name

    def speak(self):
        pass

class Dog(Animal):
    def speak(self):
        return "Woof!"

class Cat(Animal):
    def speak(self):

```

```

        return "Meow"

class Bird(Animal):
    def speak(self):
        return "Tweet tweet!"

def main():
    dog = Dog("Buddy")
    cat = Cat("Mittens")
    bird = Bird("Polly")

    print(dog.name + ": " + dog.speak())
    print(cat.name + ": " + cat.speak())
    print(bird.name + ": " + bird.speak())

if __name__ == "__main__":
    main()

```

OUTPUT SS

The screenshot shows the Visual Studio Code interface. The Explorer panel on the left displays a file tree with a folder named 'PERTEMUAN 2' containing several files, including 'Hybrid2.py'. The main editor window shows the code for 'Hybrid2.py', which defines a base class 'Animal' and three subclasses: 'Dog', 'Cat', and 'Bird'. Each subclass has a 'speak' method that returns a specific sound. A 'main' function creates instances of these classes and prints their names and sounds. The TERMINAL panel at the bottom shows the command prompt running the script, resulting in the following output:

```

PS D:\KELAS\TIF\212-C1C-R2 semester 4\PBO 2 Lanjut\Wahyudi (R2) - 2023\Pertemuan 2> & C:/Users/DELL/AppData/Local/Programs/Python/Python310/python.exe "d:/KELAS/TIF/212-C1C-R2 semester 4/PBO 2 Lanjut/Wahyudi (R2) - 2023/Pertemuan 2/Praktikum/Hybrid2.py"
Buddy: Woof!
Mittens: Meow
Polly: Tweet tweet!
PS D:\KELAS\TIF\212-C1C-R2 semester 4\PBO 2 Lanjut\Wahyudi (R2) - 2023\Pertemuan 2>

```