



PEMROGRAMAN BERORIENTASI OBJEK LANJUT

2023



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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

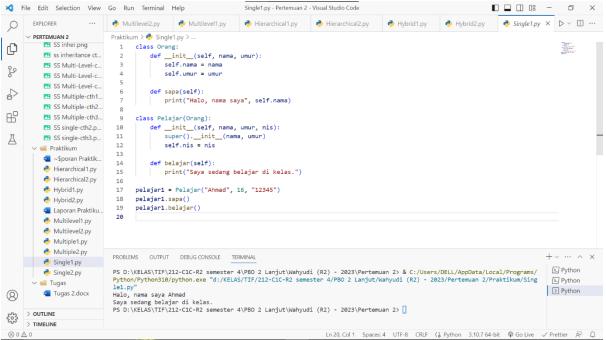
    def sapa(self):
        print("Halo, nama saya", self.nama)

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()
```





2. single2.py

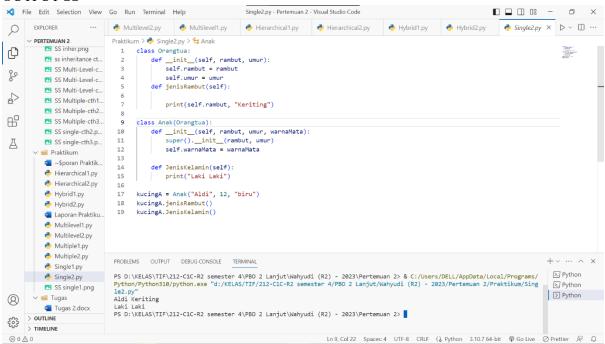
```
class Orangtua:
    def __init__(self, rambut, umur):
        self.rambut = rambut
        self.umur = umur
    def jenisRambut(self):
        print(self.rambut, "Keriting")

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)
```

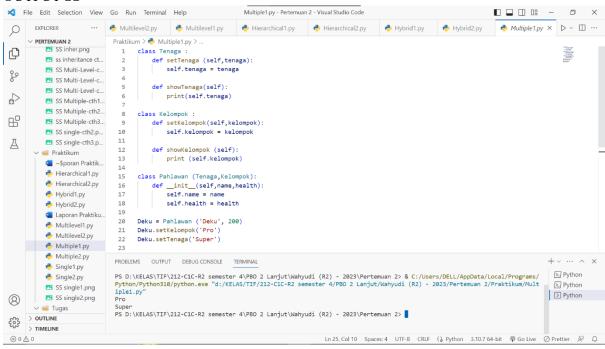
```
class Kelompok :
    def setKelompok(self,kelompok):
        self.kelompok = kelompok

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()
```



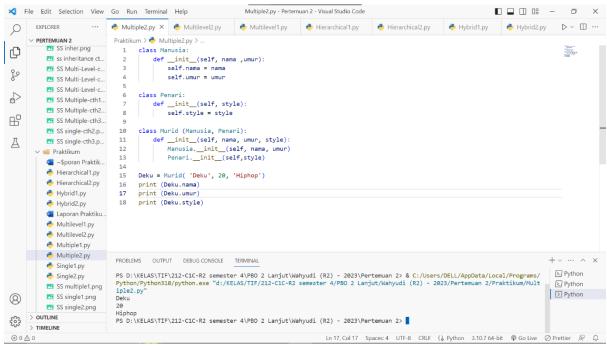
4. multiple2.py,

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

class Penari:
    def __init__(self, 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)
```



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.func3()
```

OUTPUT SS ★ File Edit Selection View Go Run Terminal Help Hierarchical 1.py - Pertemuan 2 - Visual Studio Code **□** □ □ □ · × EXPLORER ··· 👶 Multiple2.py 👶 Multiple2.py 👶 Multiple2.py 🐧 Multiple2.py 🐧 Hierarchical1.py X M: SS inher.png 1 class Parent: M: ss inheritance ct... 2 def func1(self): M: SS Multi-Level-c... 3 print("This function is in parent class.") M: SS Multi-Level-c... 4 Praktikum > ₱ Hierarchical1.py > ♣ Child1 > ๗ func2 C စ္စ SS Multi-Level-c... <\lambda SS Multiple-cth1... SS Multiple-cth2... SS Single-cth3... SS single-cth2.p... SS single-cth3.p... Place of the func2(self): print("This function is in child 1.") Д ∨ 📹 Praktikum -Sporan Praktik... -Hierarchical.py -Hierarchical2py -Hybrid1.py Hybrid2.pv Multiple2.py disple1.py disple2.py disple2.py disple2.py disple2.py disple2.py disple3.py disple3 PS D:\KELAS\TIF\212-C1C-R2 semester 4\P80 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/P80 2 Lanjut/Wahyudi (R2) - 2023\Pertemuan 2/Praktikum/Hier archicall.py" This function is in parent class. This function is in child 1. This function is in parent class. This function is in parent class. This function is in child 2. PS D:\KELAS\TIF\212-C1C-R2 semester 4\P80 2 Lanjut\Wahyudi (R2) - 2023\Pertemuan 2> [] Python SS multiple1.png > Python SS multiple2.png SS single1.png > OUTLINE > TIMELINE ⊗ 0 △ 0 Ln 9, Col 21 Tab Size: 4 UTF-8 CRLF {} Python 3.10.7 64-bit @ Go Live ⊘ Prettier 尽 ♀

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):
```

```
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                          Praktikum 12 def speak(self):
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    print(f"{self.name} meows.")
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23 my_cat = Cat("Whiskers")
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7. multilevel1.py

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

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

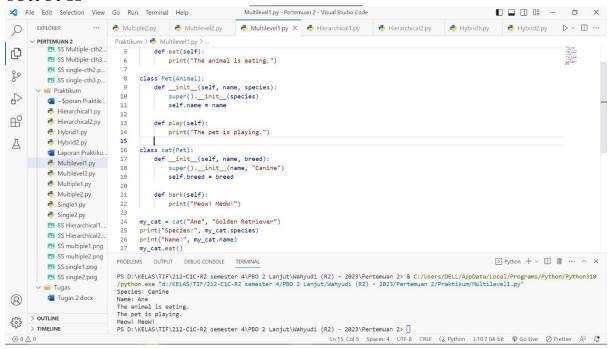
class Pet(Animal):
    def __init__(self, name, species):
        super().__init__(species)
        self.name = name

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()
```



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 🛪 File Edit Selection View Go Run Terminal Help Multilevel2.py - Pertemuan 2 - Visual Studio Code ··· 👲 Multiple2.py 👲 Multilevel2.py × 👰 Multilevel1.py 💆 Hierarchical1.py 👲 Hierarchical2.py 💆 Hybrid1.py 💆 Hybrid2.py 🗘 • World2.py 0 go Praktikum **Coron Praktik... **Pierarchical1.py **Heirarchical2.py **Heirarch ∨ Praktikum 8 Hybrid1.py 10 Hybrid2.py 11 def drive(self): a Laporan Praktiku... 12 print(f"The A print(f"The {self.color} car is driving at {self.speed} km/h.") d Multilevel2.py 14 class ElectricCar(Car) 25 def 5ni+ /--def __init__(self, color, wheels, speed, battery_capacity): super().__init__(color, wheels, speed) self.battery_capacity = battery_capacity Multiple1.py 16 Multiple2.py 17 Single1.py print(f"The {self.color} electric car is charging its battery with {self.battery capacity} kWh.") SS multiple2.png PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PS D:\KELAS\TIF\212-CIC-R2 semester 4\PBO 2 Lanjut\Wahyudi (R2) - 2023\Pertemuan 2\> & C:\Users\DELL\AppData\Local\Programs\Python\Python310 PS D:\KELAS\TIF\212-CIC-R2 semester 4\PBO 2 Lanjut\Wahyudi (R2) - 2023\Pertemuan 2\> & C:\Users\DELL\AppData\Local\Programs\Python\Python310 /*Dython.exe "d:\KELAS\TIF\212-CIC-R2 semester 4\PBO 2 Lanjut\Wahyudi (R2) - 2023\Pertemuan 2\Praktikum\Wultilevel2.py" The blue electric car is charging its battery with 60 kWh. PS D:\KELAS\TIF\212-CIC-R2 semester 4\PBO 2 Lanjut\Wahyudi (R2) - 2023\Pertemuan 2\Praktikum\Unitilevel2.py" (8) v 📹 Tugas SOS > OUTLINE ⊗ 0 △ 0 Ln 9, Col 27 Spaces: 4 UTF-8 CRLF (} Python 3.10.7 64-bit ♀ Go Live ⊘ Prettier 尽 ↓ ↓

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_c()
my_d.method_d()
```

OUTPUT SS File Edit Selection View Go Run Terminal Help Hybrid1.py - Pertemuan 2 - Visual Studio Code EXPLORER ... 🐧 Multiple2.py 🐧 Multiple2.py 🐧 Multiple2.py 🐧 Multiple2.py 🐧 Multiple2.py PERTEMUAN 2 PERTEMUAN 2 PROBLEM PARTIES SS Multiple-cth2... SS Multiple-cth3... SS Single-cth2.p... Praktikum 1 class A: def method_a(self): print("Method A") so class B(A): def method_b(self): print("Method B") Hierarchical1.py Hierarchical2.py Hierarchical2.py class C(A): C Then Then Then Then Then စ္စ \ \ \ Piterarchical2.py d Hierarchical2.py Hybrid1.py Hybrid2.py Hybrid2.py def method_c(self): print("Method C") 8 Hybrid2.py 11 Laporan Praktiku... 12 Multilevel1.py 13 Д class D(B, C): → Multilevel1.py 13 class u(p, c). → Multilevel2.py 14 def method_d(self): print("Method D") Multiple1.py Multiple2.py Multiple2.py Single1.py 16 17 my_d = D() 18 my_d.method_a() Single2py SS Hierarchical2... SS Hierarchical2... SS Hierarchical2... SS Hierarchical2... SS Michigan I now SS Multilevel1.png SS Multilevel2.png PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL SS multiple1.png SS multiple2.png PS D:\KELAS\TIF\212-C1C-R2 semester 4\PB0 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\PB0 2 Lanjut\Wahyudi (R2) - 2023\Pertemuan 2\Praktikum\Hybrid1.py" SS single1.png SS single2.png (8) ✓ 📹 Tugas > OUTLINE PS D:\KELAS\TIF\212-C1C-R2 semester 4\PBO 2 Lanjut\Wahyudi (R2) - 2023\Pertemuan 2> [] > TIMELINE ⊗ 0 ▲ 0 Ln 12, Col 1 Spaces: 4 UTF-8 CRLF () Python 3.10.7 64-bit GO Go Live Prettier &

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()
```

