

PEMROGRAMAN BERORIENTASI OBJEK LANJUT

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Buatlah masing-masing 2 contoh polymorphism statis (overload) dan polymorphism dinamis (overriding). Beri nama overload1.py, overload2.py, overriding1.py, overriding2.py

### **JAWAB**

- 1. Polymorphism statis (overload)
  - A. Overload1
    - Source Code

```
print(min(100, 2, 5, 100, 3000, 50))
print(min([1, 2, 3, 4, 0]))
print(min("Zebra"))
```

• Output

```
PS C:\KULIAH UMC\PBO LANJUT\POLYMORPHISM\Praktikum3> py overload1.py

2

0

Z
```

- B. Overload2
  - Source Code

```
1  a = [100, 5, 3]
2  a.sort()
3  print(a)
4  
5  b = ["z", "d", "h"]
6  b.sort()
7  print(b)
```

Output

```
PS C:\KULIAH UMC\PBO LANJUT\POLYMORPHISM\Praktikum3> py overload2.py
[3, 5, 100]
['d', 'h', 'z']
```

# 2. Polymorphism dinamis (overriding)

# A. Overriding1

Source Code

```
1
     class kendaraan:
 2
      def move(self):
 3
       print("kendaraan berjalan")
 4
 5
   class mobil(kendaraan):
      def move(self):
 6
7
        print("mobil berjalan")
8
9 class motor(kendaraan):
10 def move(self):
11
        print("motor berjalan")
12
13 K = kendaraan()
14 M = mobil()
15
   Mo = motor()
16
17
    K.move()
18 M.move()
19
   Mo.move()
```

## • Output

```
PS C:\KULIAH UMC\PBO LANJUT\POLYMORPHISM\Praktikum3> py overriding1.py kendaraan berjalan mobil berjalan motor berjalan
```

# B. Overriding2

• Source Code

```
1 from abc import ABC, abstractmethod
2 class kendaraan(ABC):
4 @abstractmethod
5 def start(self):
6 | pass
7
8 class mobil(kendaraan):
9 def start(self):
10 | print("mobil dinyalakan dengan cara di starter")
11
12 class motor(kendaraan):
13 def start(self):
14 | print("motor dinyalakan dengan cara disela")
15
16 class traktor(kendaraan):
17 def start(self):
18 | print("traktor dinyalakan dengan cara di starter")
19 |
20 |
21 |
21 | M = mobil()
22 | M = mobil()
23 | No = motor()
24 | T = traktor()
25 | N.start()
26 | N.start()
27 | N.start()
28 | N.start()
29 | N.start()
30 | N.start()
31 | N.start()
41 | N.start()
42 | N.start()
43 | N.start()
44 | N.start()
45 | N.start()
46 | N.start()
47 | N.start()
48 | N.start()
49 | N.start()
40 | N.start()
40 | N.start()
41 | N.start()
41 | N.start()
42 | N.start()
43 | N.start()
44 | N.start()
45 | N.start()
46 | N.start()
47 | N.start()
48 | N.start()
```

### Output

```
PS C:\KULIAH UMC\PBO LANJUT\POLYMORPHISM\Praktikum3> py overriding2.py
mobil dinyalakan dengan cara di starter
motor dinyalakan dengan cara disela
traktor dinyalakan dengan cara di starter
```