

LAPORAN PRAKTIKUM

PEMROGRAMAN BERORIENTASI OBJEK LANJUT

2023



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Tugas Praktikum 3 :

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

1. Statis(overload)

A. Overload 1

```
class Hewan:
    def suara(self):
        pass

class Serigala(Hewan):
    def suara(self):
        return "Auuuuuuu"

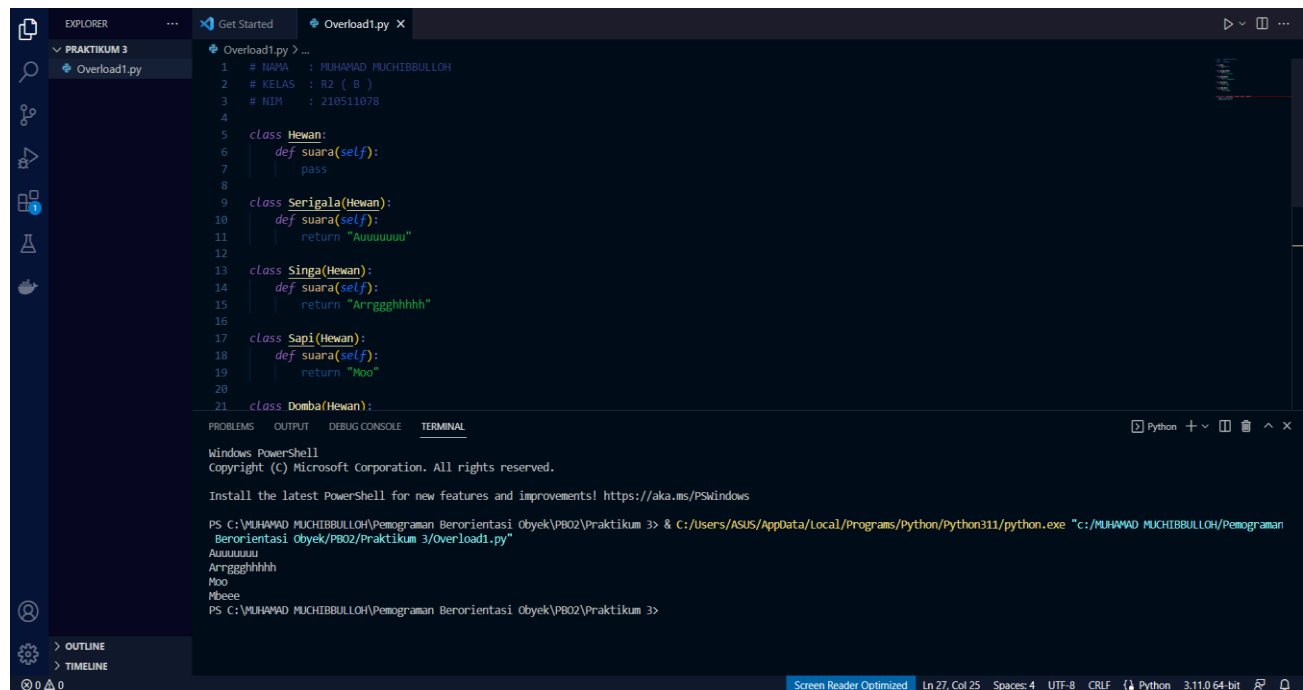
class Singa(Hewan):
    def suara(self):
        return "Arrggghhhh"

class Sapi(Hewan):
    def suara(self):
        return "Moo"

class Domba(Hewan):
    def suara(self):
        return "Mbeee"

daftar_hewan = [Serigala(), Singa(), Sapi(),
Domba()]
for hewan in daftar_hewan:
    print(hewan.suara())
```

Hasil :



The screenshot shows a Visual Studio Code editor with a file named `Overload1.py` open. The file contains a Python class hierarchy for animal sounds. The terminal window at the bottom shows the execution of the script, which outputs the sounds for each class.

```
1 # NAMA : MUHAMMAD MUCHIBULLOH
2 # KELAS : R2 ( B )
3 # NIM : 210511078
4
5 class Hewan:
6     def suara(self):
7         pass
8
9 class Serigala(Hewan):
10    def suara(self):
11        return "Auuuuuuu"
12
13 class Singa(Hewan):
14    def suara(self):
15        return "Arrggghhhh"
16
17 class Sapi(Hewan):
18    def suara(self):
19        return "Moo"
20
21 class Domba(Hewan):
```

Terminal Output:

```
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PS C:\MUHAMMAD MUCHIBULLOH\Pemograman Berorientasi Obyek\PB02\Praktikum 3> & C:/Users/ASUS/AppData/Local/Programs/Python/Python311/python.exe "c:/MUHAMMAD MUCHIBULLOH/Pemograman Berorientasi Obyek\PB02\Praktikum 3/Overload1.py"
Auuuuuuu
Arrggghhhh
Moo
Mbeee
PS C:\MUHAMMAD MUCHIBULLOH\Pemograman Berorientasi Obyek\PB02\Praktikum 3>
```

B. Overload 2

```
class Ucapan:
    def suara(self):
        pass

class Pagi(Ucapan):
    def suara(self):
        return
        "Selamat Pagi"

class Siang(Ucapan):
    def suara(self):
        return
        "Selamat Siang"

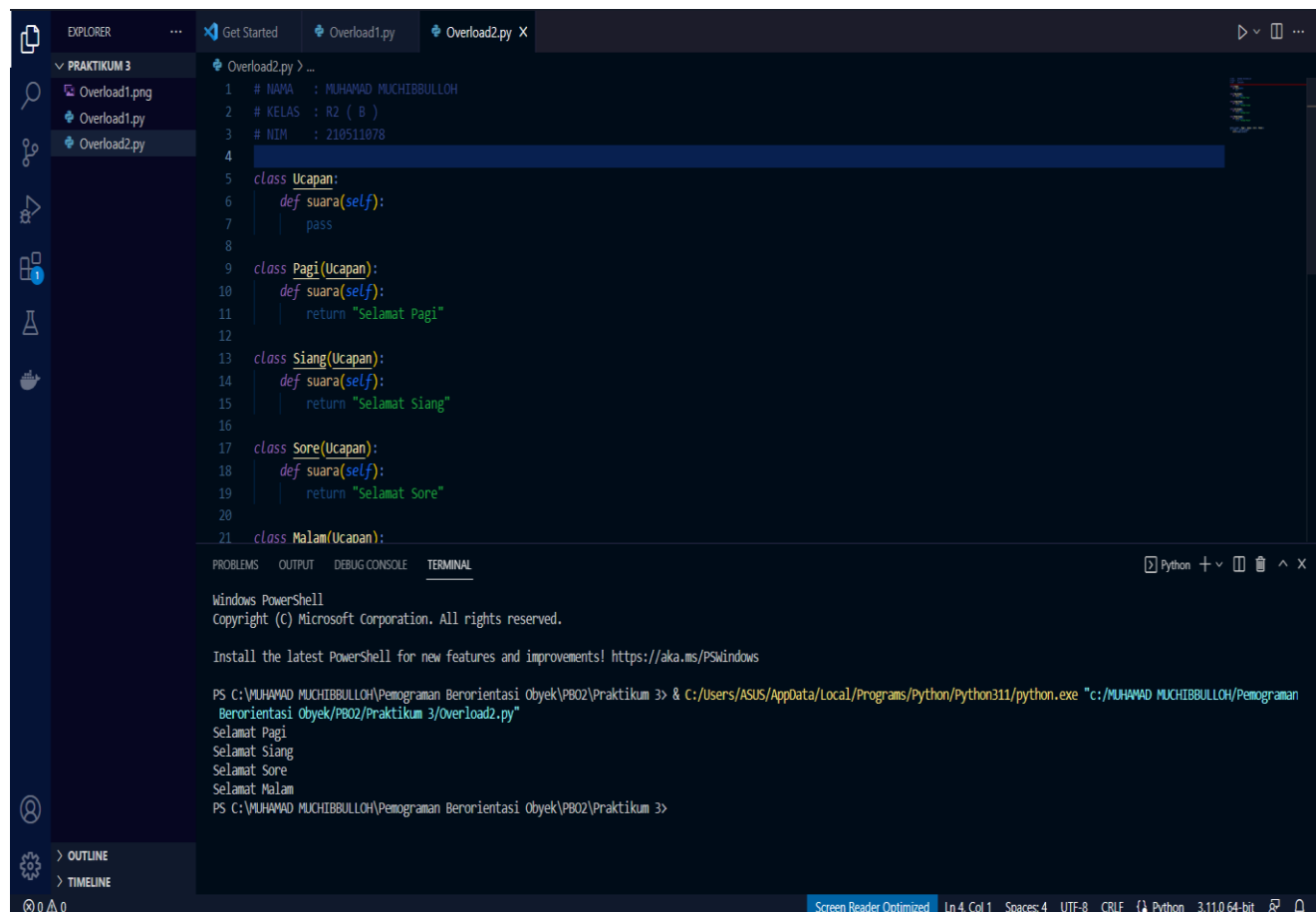
class Sore(Ucapan):
    def suara(self):
```

```
return "Selamat  
Sore"
```

```
class Malam(Ucapan):  
    def suara(self):  
        return  
        "Selamat Malam"
```

```
daftar_ucapan =  
[Pagi(), Siang(),  
Sore(), Malam()]  
for ucapan in  
daftar_ucapan:  
    print(ucapan.suarara())
```

Hasil :



The screenshot shows a Visual Studio Code editor with a Python file named `Overload2.py` open. The code defines a base class `Ucapan` and four subclasses: `Pagi`, `Siang`, `Sore`, and `Malam`. Each subclass has a `suara` method that returns a specific greeting. The `Ucapan` class has a `pass` statement in its `suara` method. Below the code, the terminal window shows the output of running the script, which prints the greetings: "Selamat Pagi", "Selamat Siang", "Selamat Sore", and "Selamat Malam".

```
1 # NAMA : MUHAMMAD MUCHIBBULLOH  
2 # KELAS : R2 ( B )  
3 # NIM : 210511078  
4  
5 class Ucapan:  
6     def suara(self):  
7         pass  
8  
9 class Pagi(Ucapan):  
10     def suara(self):  
11         return "Selamat Pagi"  
12  
13 class Siang(Ucapan):  
14     def suara(self):  
15         return "Selamat Siang"  
16  
17 class Sore(Ucapan):  
18     def suara(self):  
19         return "Selamat Sore"  
20  
21 class Malam(Ucapan):
```

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PS C:\MUHAMMAD MUCHIBBULLOH\Pemograman Berorientasi Obyek\PB02\Praktikum 3> & C:/Users/ASUS/AppData/Local/Programs/Python/Python311/python.exe "c:/MUHAMMAD MUCHIBBULLOH/Pemograman Berorientasi Obyek\PB02\Praktikum 3/Overload2.py"
Selamat Pagi
Selamat Siang
Selamat Sore
Selamat Malam
PS C:\MUHAMMAD MUCHIBBULLOH\Pemograman Berorientasi Obyek\PB02\Praktikum 3>

2. Dinamis (Overriding)

A. Overriding 1

```
class Hewan:
    def suara(self):
        pass

class Serigala(Hewan):
    def suara(self):
        return
        "Auuuuuuuuuu"

class Singa(Hewan):
    def suara(self):
        return
        "Arghhhhhhhhhh"

class Sapi(Hewan):
    def suara(self):
        return "Moo"

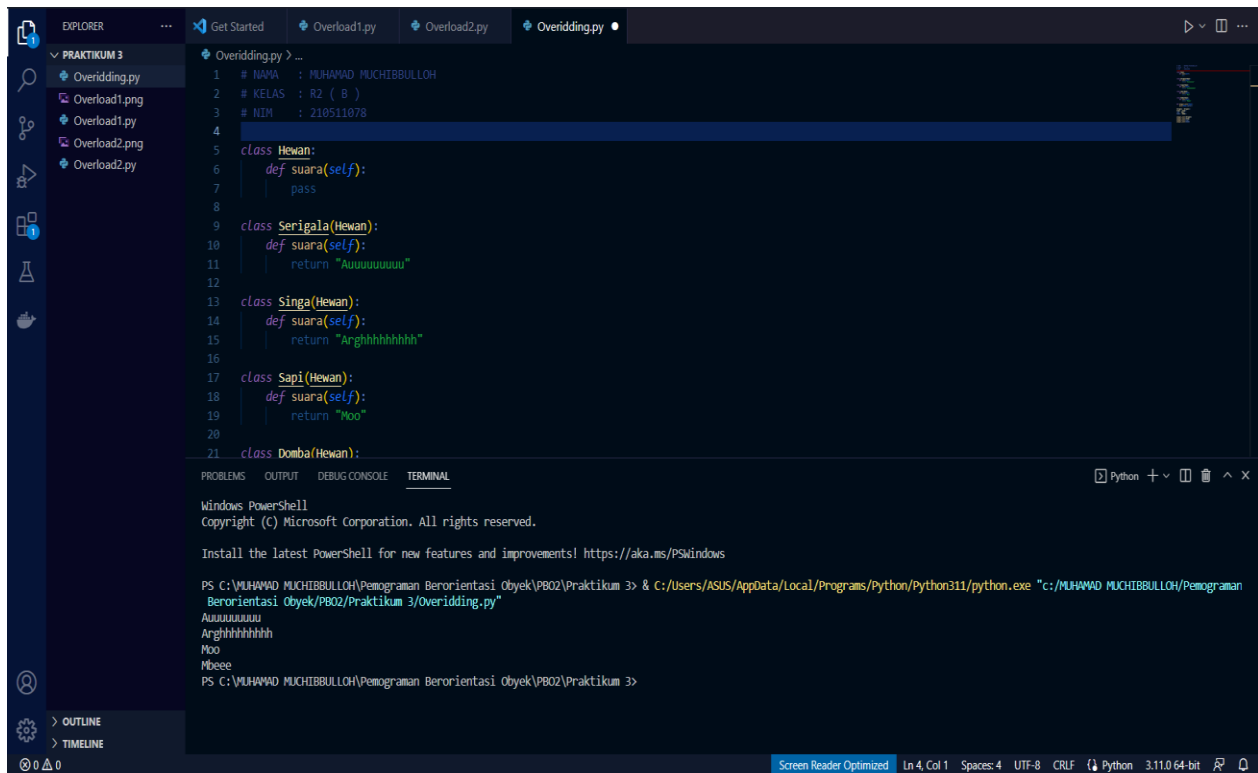
class Domba(Hewan):
    def suara(self):
        return "Mbeee"

def panggil_suara(hewan):
    print(hewan.suara())

Serigala = Serigala()
Singa = Singa()
sapi = Sapi()
domba = Domba()

panggil_suara(Serigala)
panggil_suara(Singa)
panggil_suara(sapi)
panggil_suara(domba)
```

Hasil :



```
1 # NAMA : MUHAMMAD MUCHIBBULLOH
2 # KELAS : R2 ( B )
3 # NIM : 210511078
4
5 class Hewan:
6     def suara(self):
7         pass
8
9 class Serigala(Hewan):
10     def suara(self):
11         return "Auuuuuuuuuu"
12
13 class Singa(Hewan):
14     def suara(self):
15         return "Arghhhhhhhhh"
16
17 class Sapi(Hewan):
18     def suara(self):
19         return "Moo"
20
21 class Domba(Hewan):
```

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PS C:\MUHAMMAD MUCHIBBULLOH\Pemrograman Berorientasi Obyek\p802\Praktikum 3> & C:/Users/ASUS/AppData/Local/Programs/Python/Python311/python.exe "c:/MUHAMMAD MUCHIBBULLOH/Pemrograman Berorientasi Obyek/p802/Praktikum 3/Overriding.py"

Auuuuuuuuuu
Arghhhhhhhhh
Moo
Mbeee

PS C:\MUHAMMAD MUCHIBBULLOH\Pemrograman Berorientasi Obyek\p802\Praktikum 3>

B. Overriding 2

```
class Ucapan:
    def suara(self):
        pass

class Pagi(Ucapan):
    def suara(self):
        return "Selamat Pagi"

class Siang(Ucapan):
    def suara(self):
        return "Selamat Siang"

class Sore(Ucapan):
    def suara(self):
        return "Selamat Sore"
```

```

class Malam(Ucapan):
    def suara(self):
        return "Selamat Malam"

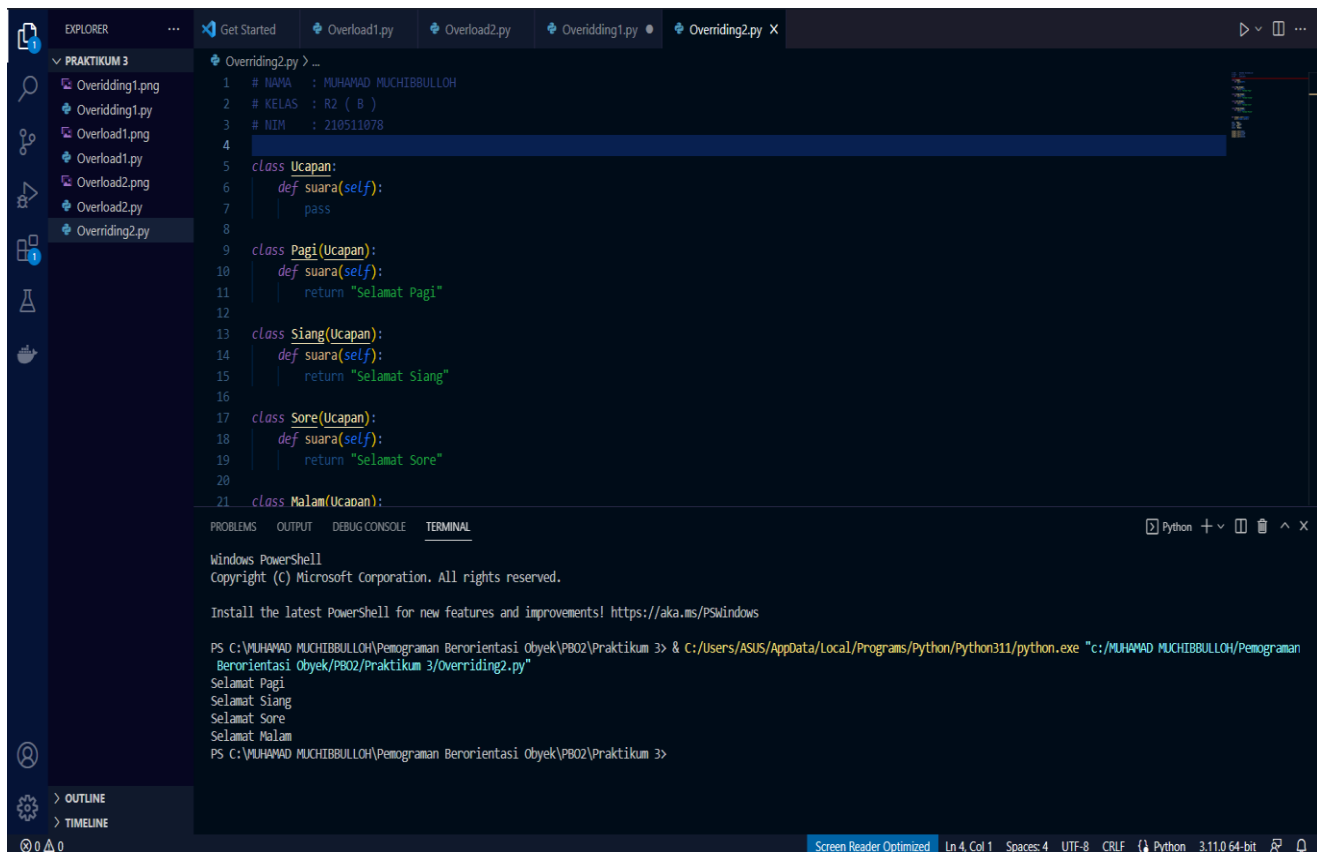
def panggil_suara(ucapan):
    print(ucapan.suara())

pagi = Pagi()
siang = Siang()
sore = Sore()
malam = Malam()

panggil_suara(pagi)
panggil_suara(siang)
panggil_suara(sore)
panggil_suara(malam)

```

Hasil :



The screenshot shows a Visual Studio Code editor window with a Python file named 'Overriding2.py' open. The code defines a base class 'Ucapan' with a 'suara' method that returns 'pass'. It then defines three subclasses: 'Pagi', 'Siang', and 'Sore', each overriding the 'suara' method to return 'Selamat Pagi', 'Selamat Siang', and 'Selamat Sore' respectively. A fourth class, 'Malam', inherits from 'Ucapan' but does not override the 'suara' method. The code also includes a function 'panggil_suara' that prints the result of calling 'suara' on an instance of the respective class. The terminal at the bottom shows the execution of the script, which outputs 'Selamat Pagi', 'Selamat Siang', 'Selamat Sore', and 'Selamat Malam' in sequence.

```

1  # NAMA : MUHAMMAD MUCHIBULLOH
2  # KELAS : R2 ( B )
3  # NIM : 210511078
4
5  class Ucapan:
6      def suara(self):
7          pass
8
9  class Pagi(Ucapan):
10     def suara(self):
11         return "Selamat Pagi"
12
13  class Siang(Ucapan):
14     def suara(self):
15         return "Selamat Siang"
16
17  class Sore(Ucapan):
18     def suara(self):
19         return "Selamat Sore"
20
21  class Malam(Ucapan):
22
23  def panggil_suara(ucapan):
24     print(ucapan.suara())
25
26  pagi = Pagi()
27  siang = Siang()
28  sore = Sore()
29  malam = Malam()
30
31  panggil_suara(pagi)
32  panggil_suara(siang)
33  panggil_suara(sore)
34  panggil_suara(malam)

```

```

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PS C:\MUHAMMAD MUCHIBULLOH\Pemrograman Berorientasi Obyek\PB02\Praktikum 3> & C:/Users/ASUS/AppData/Local/Programs/Python/Python311/python.exe "c:/MUHAMMAD MUCHIBULLOH/Pemrograman Berorientasi Obyek/PB02/Praktikum 3/Overriding2.py"
Selamat Pagi
Selamat Siang
Selamat Sore
Selamat Malam
PS C:\MUHAMMAD MUCHIBULLOH\Pemrograman Berorientasi Obyek\PB02\Praktikum 3>

```