

Nama : Muhamad Nairul Ramandhika

Kelas : R1

NIM : 210511040

Tugas2 PBO2

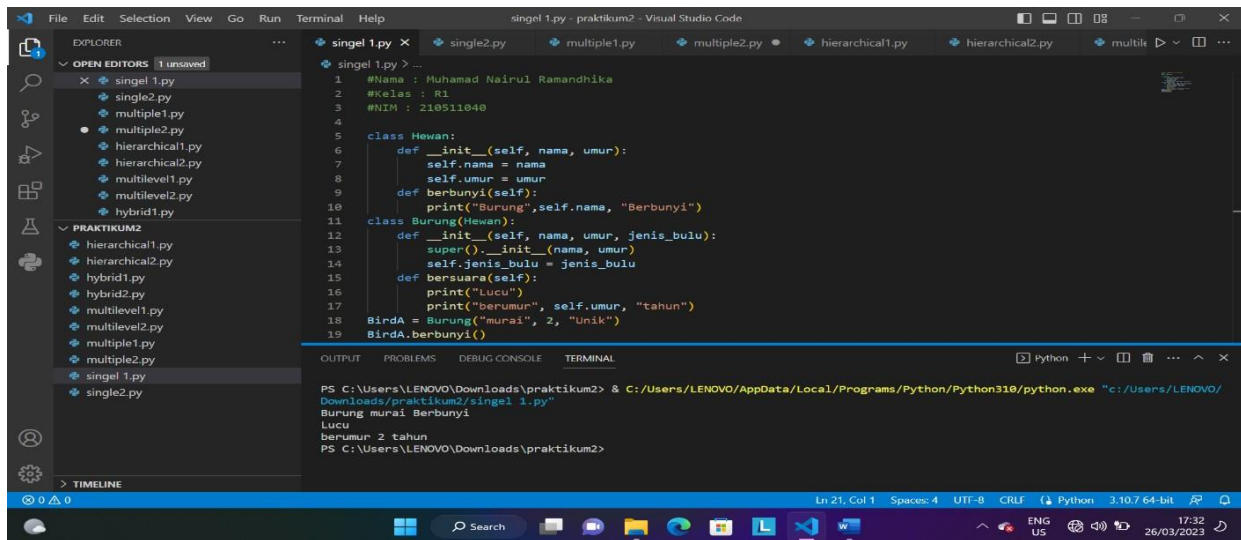
Single1

Script :

```
#Nama : Muhamad Nairul Ramandhika
#Kelas : R1
#NIM : 210511040

class Hewan:
    def __init__(self, nama, umur):
        self.nama = nama
        self.umur = umur
    def berbunyi(self):
        print("Burung",self.nama, "Berbunyi")
class Burung(Hewan):
    def __init__(self, nama, umur, jenis_bulu):
        super().__init__(nama, umur)
        self.jenis_bulu = jenis_bulu
    def bersuara(self):
        print("Lucu")
        print("berumur", self.umur, "tahun")
BirdA = Burung("murai", 2, "Unik")
BirdA.berbunyi()
BirdA.bersuara()
```

Hasil running program :



The screenshot shows the Visual Studio Code interface. The Explorer panel on the left lists several Python files, including 'singel 1.py'. The main editor displays the code for 'singel 1.py', which defines a 'Hewan' class with methods for initialization, sound, and movement. It also defines a 'Burung' class that inherits from 'Hewan' and adds a 'bersuara' method. An instance 'BirdA' is created and its methods are called. The terminal at the bottom shows the execution of the script, which outputs: 'Burung murai Berbunyi', 'Lucu', and 'berumur 2 tahun'.

```
1 #Nama : Muhamad Nairul Ramandhika
2 #Kelas : R1
3 #NIM : 210511040
4
5 class Hewan:
6     def __init__(self, nama, umur):
7         self.nama = nama
8         self.umur = umur
9     def berbunyi(self):
10        print("Burung", self.nama, "Berbunyi")
11
12 class Burung(Hewan):
13     def __init__(self, nama, umur, jenis_bulu):
14         super().__init__(nama, umur)
15         self.jenis_bulu = jenis_bulu
16     def bersuara(self):
17         print("Lucu")
18         print("berumur", self.umur, "tahun")
19 BirdA = Burung("murai", 2, "Unik")
20 BirdA.berbunyi()
```

OUTPUT

```
PS C:\Users\LENOVO\Downloads\praktikum2> & C:/Users/LENOVO/AppData/Local/Programs/Python/Python310/python.exe "c:/Users/LENOVO/Downloads/praktikum2/singel 1.py"
Burung murai Berbunyi
Lucu
berumur 2 tahun
PS C:\Users\LENOVO\Downloads\praktikum2>
```

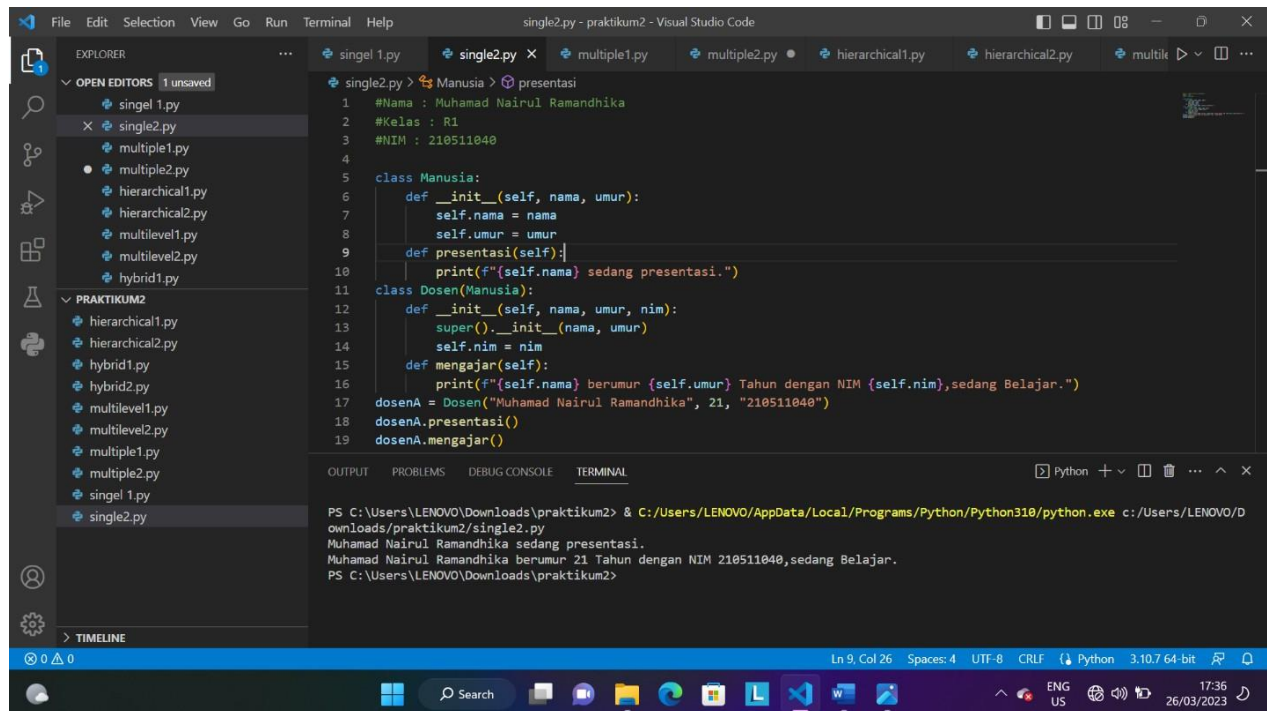
Single2

Script :

```
#Nama : Muhamad Nairul Ramandhika
#Kelas : R1
#NIM : 210511040

class Manusia:
    def __init__(self, nama, umur):
        self.nama = nama
        self.umur = umur
    def presentasi(self):
        print(f"{self.nama} sedang presentasi.")
class Dosen(Manusia):
    def __init__(self, nama, umur, nim):
        super().__init__(nama, umur)
        self.nim = nim
    def mengajar(self):
        print(f"{self.nama} berumur {self.umur} Tahun dengan NIM {self.nim},sedang Belajar.")
dosenA = Dosen("Muhamad Nairul Ramandhika", 21, "210511040")
dosenA.presentasi()
dosenA.mengajar()
```

hasil running program :



The screenshot shows the Visual Studio Code interface with a file explorer on the left and a code editor in the center. The code editor displays a Python script named 'single2.py' with the following content:

```
1 #Nama : Muhamad Nairul Ramandhika
2 #Kelas : R1
3 #NIM : 210511040
4
5 class Manusia:
6     def __init__(self, nama, umur):
7         self.nama = nama
8         self.umur = umur
9     def presentasi(self):
10        print(f"{self.nama} sedang presentasi.")
11
12 class Dosen(Manusia):
13     def __init__(self, nama, umur, nim):
14         super().__init__(nama, umur)
15         self.nim = nim
16     def mengajar(self):
17        print(f"{self.nama} berumur {self.umur} Tahun dengan NIM {self.nim},sedang Belajar.")
18
19 dosenA = Dosen("Muhamad Nairul Ramandhika", 21, "210511040")
20 dosenA.presentasi()
21 dosenA.mengajar()
```

The terminal at the bottom shows the output of the program:

```
PS C:\Users\LENOVO\Downloads\praktikum2> & C:/Users/LENOVO/AppData/Local/Programs/Python/Python310/python.exe c:/Users/LENOVO/Downloads/praktikum2/single2.py
Muhamad Nairul Ramandhika sedang presentasi.
Muhamad Nairul Ramandhika berumur 21 Tahun dengan NIM 210511040,sedang Belajar.
PS C:\Users\LENOVO\Downloads\praktikum2>
```

Multiple1

Script:

```
#Nama : Muhamad Nairul Ramandhika
#Kelas : R1
#NIM : 210511040

class Customer:
    def __init__(self, nama, nim):
        self.nama = nama
        self.nim = nim
    def membeli(self):
        print(self.nama, "sedang membeli paket di aplikasi")
class Kurir:
    def __init__(self, nama, nim, kurir):
        self.nama = nama
        self.nim = nim
        self.kurir = kurir
    def mengantar(self):
        print(self.nama, "sedang mengantar paket ke kurir", self.kurir)
class CustomerKurir(Customer, Kurir):
    def __init__(self, nama, nim, kurir):
```

```

        Customer.__init__(self, nama, nim)
        Kurir.__init__(self, nama, nim, kurir)
    def membayar(self):
        print(self.nama,"dengan NIM", self.nim, "sedang membayar paket ke kurir",
self.kurir)
mhs_kurir = CustomerKurir("Muhamad Nairul Ramandhika", "210511040", "JNE")
mhs_kurir.membeli()
mhs_kurir.mengantar()
mhs_kurir.membayar()

```

Hasil running program:

```

multiple1.py > Kurir
1 #Nama : Muhamad Nairul Ramandhika
2 #Kelas : R1
3 #NIM : 210511040
4
5 class Customer:
6     def __init__(self, nama, nim):
7         self.nama = nama
8         self.nim = nim
9     def membeli(self):
10        print(self.nama, "sedang membeli paket di aplikasi")
11
12 class Kurir:
13     def __init__(self, nama, nim, kurir):
14         self.nama = nama
15         self.nim = nim
16         self.kurir = kurir
17     def mengantarkan(self):
18        print(self.nama, "sedang mengantarkan paket ke kurir", self.kurir)
19
20 class CustomerKurir(Customer, Kurir):
21     def __init__(self, nama, nim, kurir):

```

OUTPUT

```

PS C:\Users\LENOVO\Downloads\praktikum2> & C:/Users/LENOVO/AppData/Local/Programs/Python/Python310/python.exe c:/Users/LENOVO/Downloads/praktikum2/multiple1.py
Muhamad Nairul Ramandhika sedang membeli paket di aplikasi
Muhamad Nairul Ramandhika sedang mengantarkan paket ke kurir JNE
Muhamad Nairul Ramandhika dengan NIM 210511040 sedang membayar paket ke kurir JNE
PS C:\Users\LENOVO\Downloads\praktikum2>

```

Multiple2

Script:

```

#Nama : Muhamad Nairul Ramandhika
#Kelas : R1
#NIM : 210511040

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

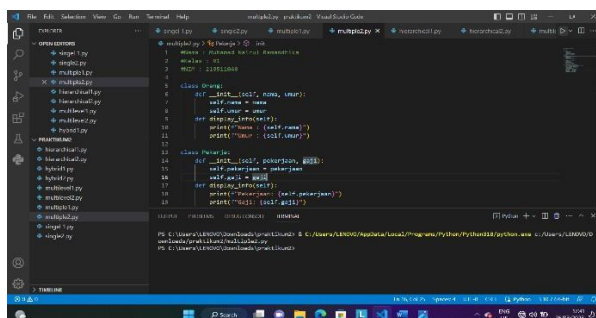
```

```
class Pekerja:
```

```
class Pribadi:
```

```
class PribadiPekerja(Orang, Pekerja, Pribadi):
```

hasil running program:



Hierarchical1

Script:

```
#Nama : Muhamad Nairul Ramandhika
#Kelas : R1
#NIM : 210511040

class Employee:
    def __init__(self, name, age, salary):
        self.name = name
        self.age = age
        self.salary = salary
    def get_name(self):
        return self.name
    def get_age(self):
        return self.age
    def get_salary(self):
        return self.salary
    def speak(self):
        print(f"{self.name} speaks")

class Manager(Employee):
    def __init__(self, name, age, salary, department):
        super().__init__(name, age, salary)
        self.department = department
    def get_department(self):
        return self.department

class Programmer(Employee):
    def __init__(self, name, age, salary, language):
        super().__init__(name, age, salary)
        self.language = language
    def get_language(self):
        return self.language

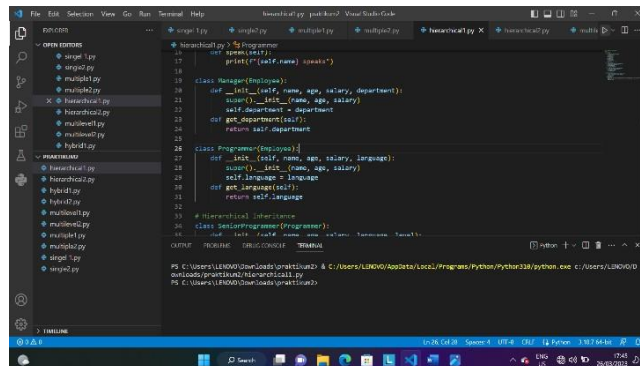
# Hierarchical Inheritance
class SeniorProgrammer(Programmer):
    def __init__(self, name, age, salary, language, level):
        super().__init__(name, age, salary, language)
        self.level = level
    def get_level(self):
        return self.level
    def speak(self):
```

```

        print(f"{self.name} Berumur {self.age} berpenghasilan
{self.salary}/Bulan, karena menguasai bahasa {self.language} level
{self.level}.")
    print("="*54)
    Pengunjung = SeniorProgrammer("Muhamad Nairul Ramandhika", 22,"Rp
6000.000", "Python", 2)
    Pengunjung.speak()

```

Hasil running program:



Hierarchical2

Script:

```

#Nama : Muhamad Nairul Ramandhika
#Kelas : R1
#NIM : 210511040

class Ekspedisi:
    def __init__(self, nama, umur, gaji):
        self.nama = nama
        self.umur = umur
        self.gaji = gaji
    def get_nama(self):
        return self.nama
    def get_umur(self):
        return self.umur
    def get_gaji(self):
        return self.gaji
    def speak(self):
        print(f"{self.nama} speaks")

class Kurir(Ekspedisi):
    def __init__(self, nama, umur, gaji, department):
        super().__init__(nama, umur, gaji)

```

```

        self.department = department
    def get_department(self):
        return self.department

class Datakurir(Ekspedisi):
    def __init__(self, nama, umur, gaji, alamat):
        super().__init__(nama, umur, gaji)
        self.alamat = alamat
    def get_alamat(self):
        return self.alamat

# Hierarchical Inheritance
class SeniorDatakurir(Datakurir):
    def __init__(self, nama, umur, gaji, alamat, ekspedisi):
        super().__init__(nama, umur, gaji, alamat)
        self.ekspedisi = ekspedisi
    def get_ekspedisi(self):
        return self.ekspedisi
    def data(self):
        print(f"{self.nama} Berumur {self.umur} tahun berpenghasilan
Rp{self.gaji} /Bulan, alamat pengantaran {self.alamat} dengan ekspedisi
{self.ekspedisi}.")
print("="*54)
Pengunjung = SeniorDatakurir("Muhamad Nairul Ramandhika", 21, 5000.000,
"kuningan", "JNE")
Pengunjung.data()

```

Hasil running program:

The screenshot shows a Visual Studio Code window with a file explorer on the left containing several Python files. The main editor displays a Python script with the following code:

```

15         return self.gaji
16     def speak(self):
17         print(f"{self.nama} speaks")
18
19     class Kurir(Ekspedisi):
20     def __init__(self, nama, umur, gaji, department):
21         super().__init__(nama, umur, gaji)
22         self.department = department
23     def get_department(self):
24         return self.department
25
26     class Datakurir(Ekspedisi):
27     def __init__(self, nama, umur, gaji, alamat):
28         super().__init__(nama, umur, gaji)
29         self.alamat = alamat
30     def get_alamat(self):
31         return self.alamat
32
33     # Hierarchical Inheritance
34     class SeniorDatakurir(Datakurir):
35     def __init__(self, nama, umur, gaji, alamat, ekspedisi):

```

The terminal at the bottom shows the output of the program:

```

PS C:\Users\LENOVO\Downloads\praktikum2> & C:/Users/LENOVO/AppData/Local/Programs/Python/Python310/python.exe c:/Users/LENOVO/Downloads/praktikum2/hierarchial2.py
=====
Muhamad Nairul Ramandhika Berumur 21 tahun berpenghasilan Rp5000.0 /Bulan, alamat pengantaran kuningan dengan ekspedisi JNE.
PS C:\Users\LENOVO\Downloads\praktikum2>

```


Multilevel1

Script:

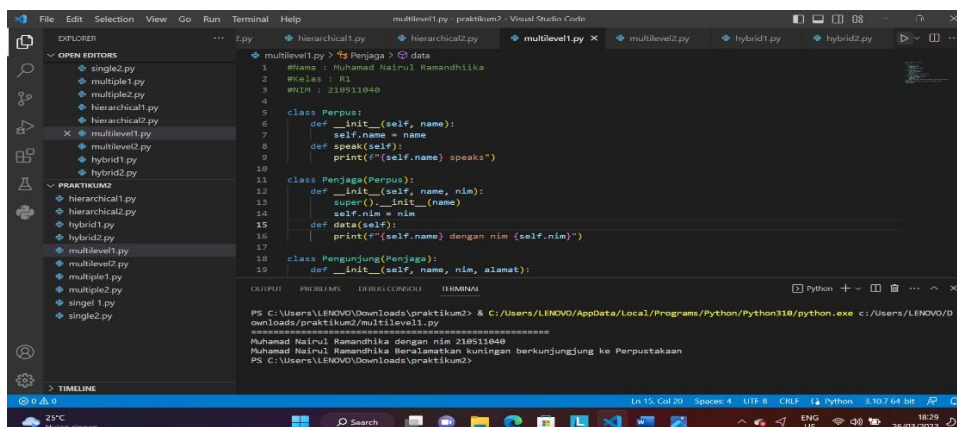
```
#Nama : Muhamad Nairul Ramandhiika
#Kelas : R1
#NIM : 210511040

class Perpustakaan:
    def __init__(self, name):
        self.name = name
    def speak(self):
        print(f"{self.name} speaks")

class Penjaga(Perpustakaan):
    def __init__(self, name, nim):
        super().__init__(name)
        self.nim = nim
    def data(self):
        print(f"{self.name} dengan nim {self.nim}")

class Pengunjung(Penjaga):
    def __init__(self, name, nim, alamat):
        super().__init__(name, nim)
        self.alamat = alamat
    def speak(self):
        print(f"{self.name} Beralamatkan {self.alamat} berkunjung ke
Perpustakaan")
print("="*54)
Pengunjung = Pengunjung("Muhamad Nairul Ramandhiika", 210511040, "kuningan")
Pengunjung.data()
Pengunjung.speak()
```

Hasil running program:



```
multilevel1.py > Penjaga > data
1 #Nama : Muhamad Nairul Ramandhiika
2 #Kelas : R1
3 #NIM : 210511040
4
5 class Perpustakaan:
6     def __init__(self, name):
7         self.name = name
8     def speak(self):
9         print(f"{self.name} speaks")
10
11 class Penjaga(Perpustakaan):
12     def __init__(self, name, nim):
13         super().__init__(name)
14         self.nim = nim
15     def data(self):
16         print(f"{self.name} dengan nim {self.nim}")
17
18 class Pengunjung(Penjaga):
19     def __init__(self, name, nim, alamat):
20
OUTPUT
PS C:\Users\LENOVO\Downloads\praktikum0> & C:\Users\LENOVO\AppData\Local\Programs\Python\Python310\python.exe c:\Users\LENOVO\Downloads\praktikum0\multilevel1.py
=====
Muhamad Nairul Ramandhiika dengan nim 210511040
Muhamad Nairul Ramandhiika Beralamatkan kuningan berkunjung ke Perpustakaan
PS C:\Users\LENOVO\Downloads\praktikum0>
```

Multilevel2

Script:

```
#Nama : Muhamad Nairul Ramandhika
#Kelas : R1
#NIM : 210511040

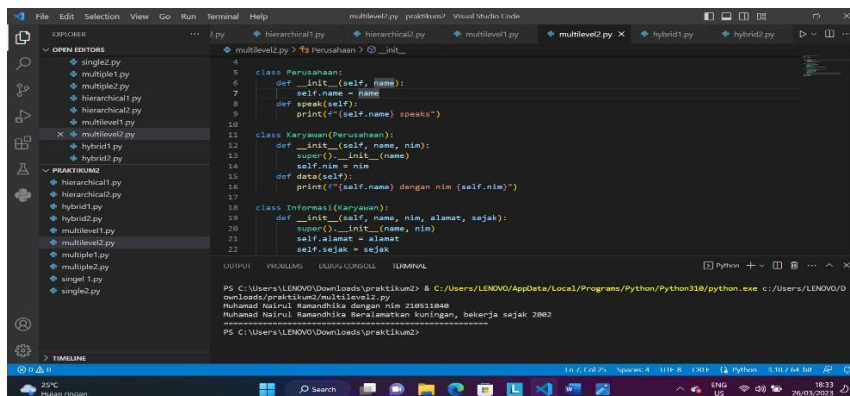
class Perusahaan:
    def __init__(self, name):
        self.name = name
    def speak(self):
        print(f"{self.name} speaks")

class Karyawan(Perusahaan):
    def __init__(self, name, nim):
        super().__init__(name)
        self.nim = nim
    def data(self):
        print(f"{self.name} dengan nim {self.nim}")

class Informasi(Karyawan):
    def __init__(self, name, nim, alamat, sejak):
        super().__init__(name, nim)
        self.alamat = alamat
        self.sejak = sejak
    def speak(self):
        print(f"{self.name} Beralamatkan {self.alamat}, bekerja sejak {self.sejak}")
        print("="*54)

Informasi = Informasi("Muhamad Nairul Ramandhika", 210511040, "kuningan", 2002)
Informasi.data()
Informasi.speak()
```

Hasil running program:



```
PS C:\Users\LENOVO\Downloads\praktikum2> python multilevel2.py
Muhamad Nairul Ramandhika dengan nim 210511040
Muhamad Nairul Ramandhika Beralamatkan kuningan, bekerja sejak 2002
=====
```

Hybrid1

Script:

```
#Nama : Muhamad Nairul Ramandhika
#Kelas : R1
#NIM : 210511040

class Seseorang:
    def __init__(self, name, age, address):
        self.name = name
        self.age = age
        self.address = address
    def get_info(self):
        print("Nama:", self.name)
        print("Umur:", self.age)
        print("Alamat:", self.address)

# Single Inheritance
class Mahasiswa(Seseorang):
    def __init__(self, name, age, address, student_id):
        super().__init__(name, age, address)
        self.student_id = student_id
    def get_info(self):
        super().get_info()
        print("ID Pelajar:", self.student_id)

# Single Inheritance
class Employee(Seseorang):
    def __init__(self, name, age, address, employee_id, salary):
        super().__init__(name, age, address)
        self.employee_id = employee_id
        self.salary = salary
    def get_info(self):
        super().get_info()
        print("ID Pekerja:", self.employee_id)
        print("Gaji:", self.salary)

# Multiple Inheritance
class Penulis(Employee, Mahasiswa):
    def __init__(self, name, age, address, employee_id, salary,
student_id, published_books):
        Employee.__init__(self, name, age, address, employee_id, salary)
        Mahasiswa.__init__(self, name, age, address, student_id)
        self.published_books = published_books
    def get_info(self):
```

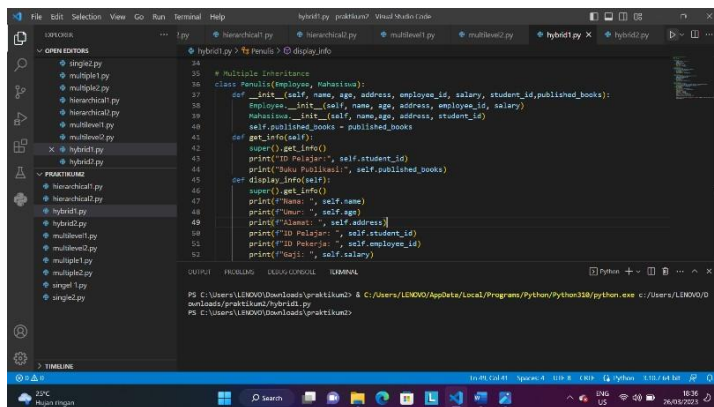
```

super().get_info()
print("ID Pelajar:", self.student_id)
print("Buku Publikasi:", self.published_books)
def display_info(self):
    super().get_info()
    print(f>Nama: ", self.name)
    print(f"Umur: ", self.age)
    print(f"Alamat: ", self.address)
    print(f"ID Pelajar: ", self.student_id)
    print(f"ID Pekerja: ", self.employee_id)
    print(f"Gaji: ", self.salary)
    print(f"Buku Publikasi: ", self.published_books)

katakA = Penulis("Muhamad Nairul Ramandhika", 20, "kuningan", 210511050,
"7.000.000", 231102, "pelangi")
katakA.display_info()

```

Hasil running program:



Hybrid2

Script:

```

#Nama : Muhamad Nairul Ramandhika
#Kelas : R1
#NIM : 210511040

class Seseorang:
    def __init__(self, name, age, address):
        self.name = name
        self.age = age
        self.address = address
    def get_info(self):
        print("Nama:", self.name)

```

```
print("Umur:", self.age)
print("Alamat:", self.address)
```

Single Inheritance

```
class Mahasiswa(Seseorang):
    def __init__(self, name, age, address, student_id):
        super().__init__(name, age, address)
        self.student_id = student_id
    def get_info(self):
        super().get_info()
        print("ID Pelajar:", self.student_id)
```

Single Inheritance

```
class Employee(Seseorang):
    def __init__(self, name, age, address, employee_id, salary):
        super().__init__(name, age, address)
        self.employee_id = employee_id
        self.salary = salary
    def get_info(self):
        super().get_info()
        print("ID Pekerja:", self.employee_id)
        print("Gaji:", self.salary)
```

Multiple Inheritance

```
class Penulis(Employee, Mahasiswa):
    def __init__(self, name, age, address, employee_id, salary, student_id,
published_books):
        Employee.__init__(self, name, age, address, employee_id, salary)
        Mahasiswa.__init__(self, name, age, address, student_id)
        self.published_books = published_books
    def get_info(self):
        super().get_info()
        print("ID Pelajar:", self.student_id)
        print("Buku Publikasi:", self.published_books)
    def display_info(self):
        super().get_info()
        print(f>Nama: ", self.name)
        print(f"Umur: ", self.age)
        print(f"Alamat: ", self.address)
        print(f"ID Pelajar: ", self.student_id)
        print(f"ID Pekerja: ", self.employee_id)
        print(f"Gaji: ", self.salary)
        print(f"Buku Publikasi: ", self.published_books)
```

```
katakA = Penulis("Muhamad Nairul Ramandhika", 20, "kuningan", 210511040,
"7.000.000", 231102, "pelangi")
katakA.display_info()
```

Hasil running program:

The screenshot shows a Visual Studio Code editor with a Python file named `hybrid2.py`. The code defines a `Penulis` class and a `Penulis2` class. The `Penulis` class has attributes `nama`, `usia`, `alamat`, `no_ktp`, `gaji`, `tanggal_lahir`, and `pekerjaan`. The `Penulis2` class inherits from `Penulis` and has an additional attribute `pekerjaan`. The `main` function creates an instance of `Penulis2` and calls the `display_info` method.

```
1 # Nama : Muhamad Nairul Ramandhika
2 # Kelas : RI
3 # NIM : 210511040
4
5 class Penulis:
6     def __init__(self, nama, usia, alamat):
7         self.nama = nama
8         self.usia = usia
9         self.alamat = alamat
10    def get_info(self):
11        print("Nama:", self.nama)
12        print("Usia:", self.usia)
13        print("Alamat:", self.alamat)
14
15 # Single Inheritance
16 class Penulis2(Penulis):
17     def __init__(self, nama, usia, alamat, student_id):
18         super().__init__(nama, usia, alamat)
19         self.student_id = student_id
20
21 if __name__ == '__main__':
22     main()
```

The output of the program is shown in the terminal:

```
PS C:\Users\LENOVO\Downloads\praktikum2> python hybrid2.py
Traceback (most recent call last):
  File "C:\Users\LENOVO\Downloads\praktikum2\hybrid2.py", line 55, in module:
    katakA = Penulis("Muhamad Nairul Ramandhika", 20, "kuningan", 210511040, "7.000.000", 231102, "pelangi")
  File "C:\Users\LENOVO\Downloads\praktikum2\hybrid2.py", line 39, in __init__:
    Employee.__init__(self, nama, usia, alamat, employee_id, salary)
  File "C:\Users\LENOVO\Downloads\praktikum2\hybrid2.py", line 27, in __init__:
    super().__init__(nama, usia, alamat)
```