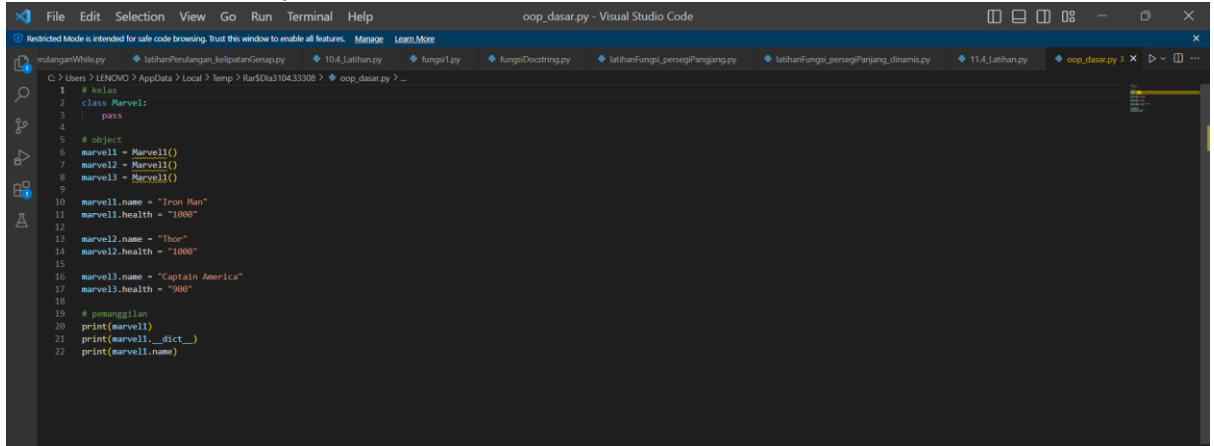Nama : I Nengah Ariya Subawa

Nim   : 211001067
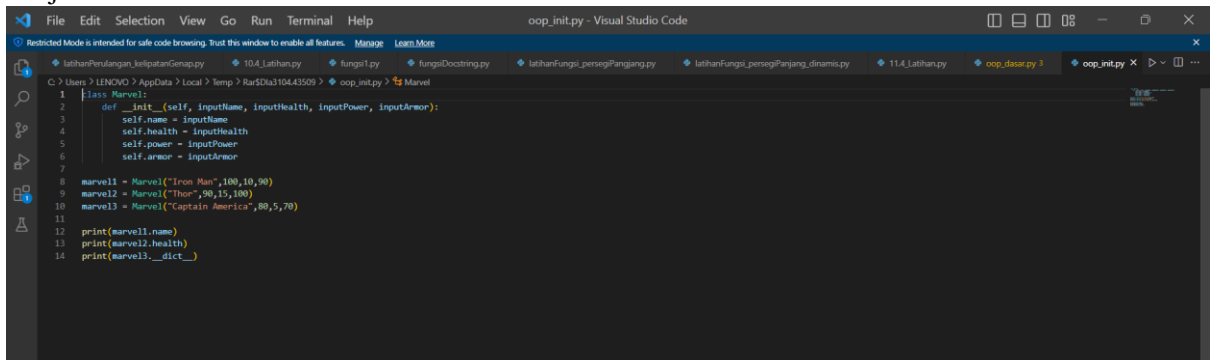
Kelas : Informatika D

1. Perkenalan Kelas & Object
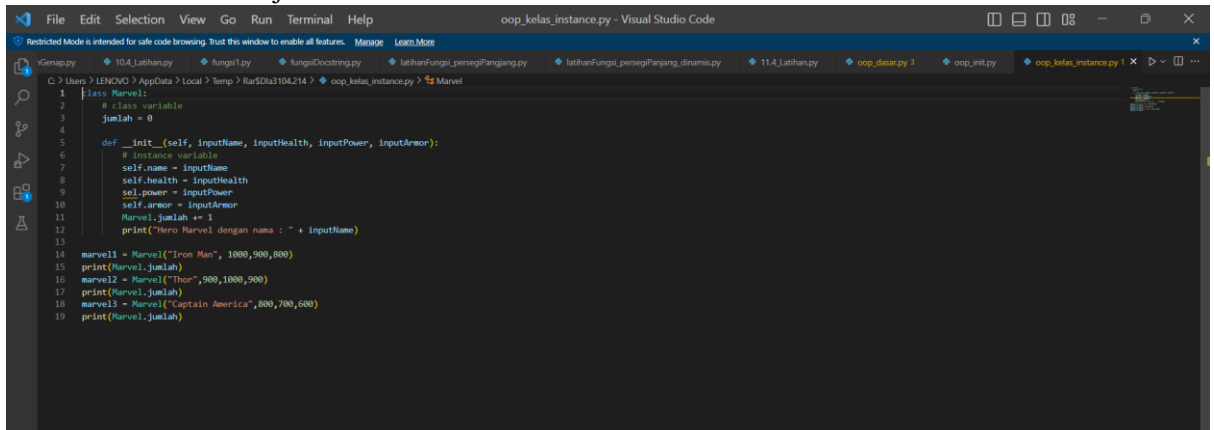
```python
# kelas
class Marvel:
    pass

# object
marvel1 = Marvel1()
marvel2 = Marvel1()
marvel3 = Marvel1()

marvel1.name = "Iron Man"
marvel1.health = "1000"

marvel2.name = "Thor"
marvel2.health = "1000"

marvel3.name = "Captain America"
marvel3.health = "900"

# pemanggilan
print(marvel1)
print(marvel1.__dict__)
print(marvel1.name)
```

2. Penjelasan Kode

```python
class Marvel:
    def __init__(self, inputName, inputHealth, inputPower, inputArmor):
        self.name = inputName
        self.health = inputHealth
        self.power = inputPower
        self.armor = inputArmor

marvel1 = Marvel("Iron Man",100,10,90)
marvel2 = Marvel("Thor",90,15,100)
marvel3 = Marvel("Captain America",80,5,70)

print(marvel1.name)
print(marvel2.health)
print(marvel3.__dict__)
```
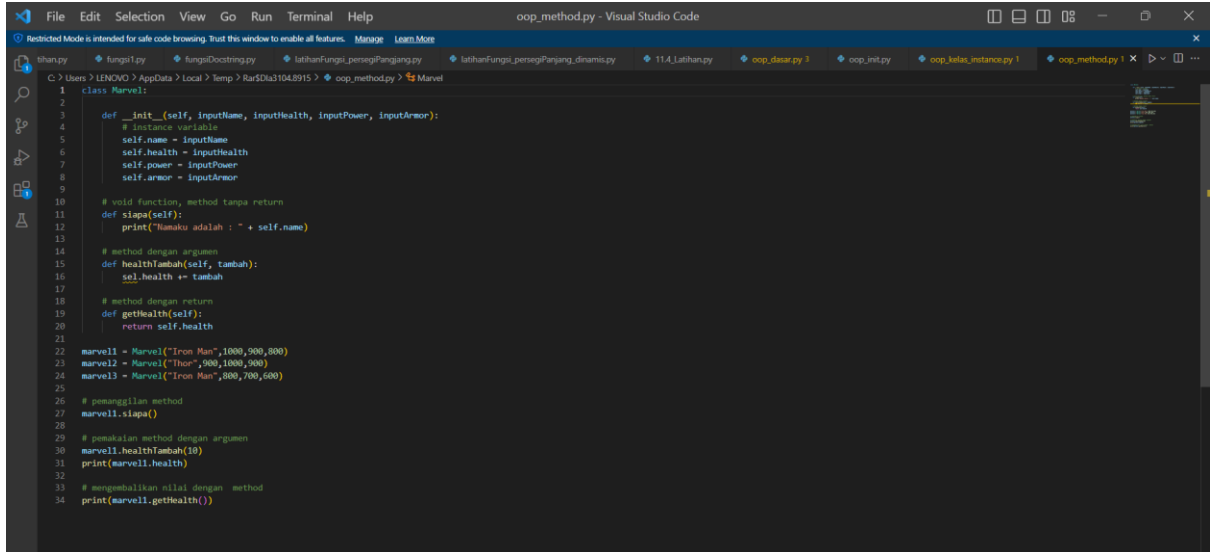
3. Variabel Kelas dan Object

```python
class Marvel:
    # class variable
    jumlah = 0

    def __init__(self, inputName, inputHealth, inputPower, inputArmor):
        # instance variable
        self.name = inputName
        self.health = inputHealth
        sel.power = inputPower
        self.armor = inputArmor
        Marvel.jumlah += 1
        print("Hero Marvel dengan nama : " + inputName)

marvel1 = Marvel("Iron Man", 1000,900,800)
print(Marvel.jumlah)
marvel2 = Marvel("Thor",900,1000,900)
print(Marvel.jumlah)
marvel3 = Marvel("Captain America",800,700,600)
print(Marvel.jumlah)
```

4. Method


```python
class Marvel:

    def __init__(self, inputName, inputHealth, inputPower, inputArmor):
        # instance variable
        self.name = inputName
        self.health = inputHealth
        self.power = inputPower
        self.armor = inputArmor

    # void function, method tanpa return
    def siapa(self):
        print("Namaku adalah : " + self.name)

    # method dengan argumen
    def healthTambah(self, tambah):
        sel.health += tambah

    # method dengan return
    def getHealth(self):
        return self.health

marvel1 = Marvel("Iron Man",1000,900,800)
marvel2 = Marvel("Thor",900,1000,900)
marvel3 = Marvel("Iron Man",800,700,600)

# pemanggilan method
marvel1.siapa()

# pemakaian method dengan argumen
marvel1.healthTambah(10)
print(marvel1.health)

# mengembalikan nilai dengan  method
print(marvel1.getHealth())
```
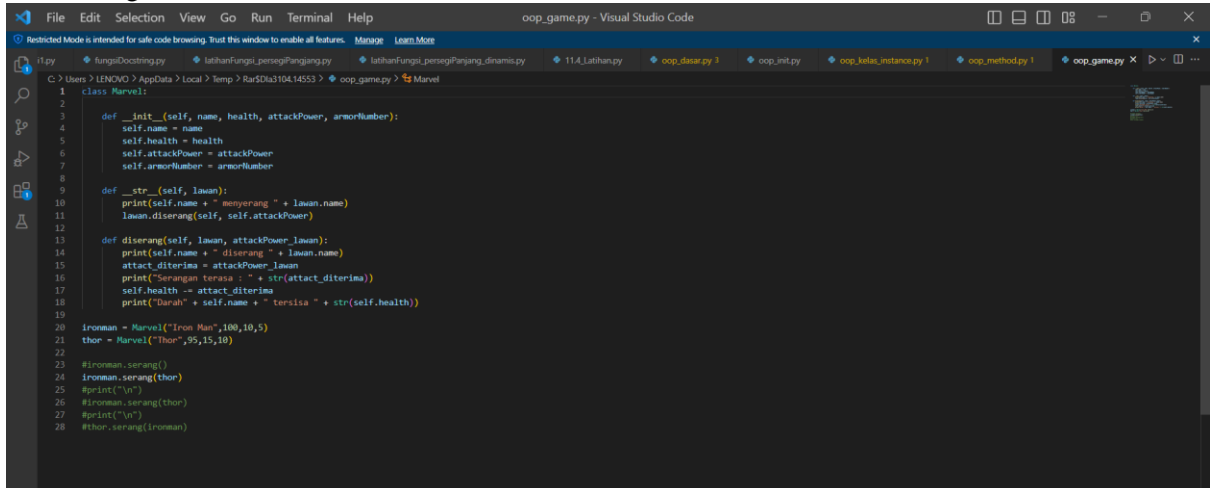
5. Game dengan OOP


```python
class Marvel:

    def __init__(self, name, health, attackPower, armorNumber):
        self.name = name
        self.health = health
        self.attackPower = attackPower
        self.armorNumber = armorNumber

    def __str__(self, lawan):
        print(self.name + " menyerang " + lawan.name)
        lawan.diserang(self, self.attackPower)

    def diserang(self, lawan, attackPower_lawan):
        print(self.name + " diserang " + lawan.name)
        attact_diterima = attackPower_lawan
        print("Serangan terasa : " + str(attact_diterima))
        self.health -= attact_diterima
        print("Darah" + self.name + " tersisa " + str(self.health))

ironman = Marvel("Iron Man",100,10,5)
thor = Marvel("Thor",95,15,10)

#ironman.serang()
ironman.serang(thor)
#print("\n")
#ironman.serang(thor)
#print("\n")
#thor.serang(ironman)
```