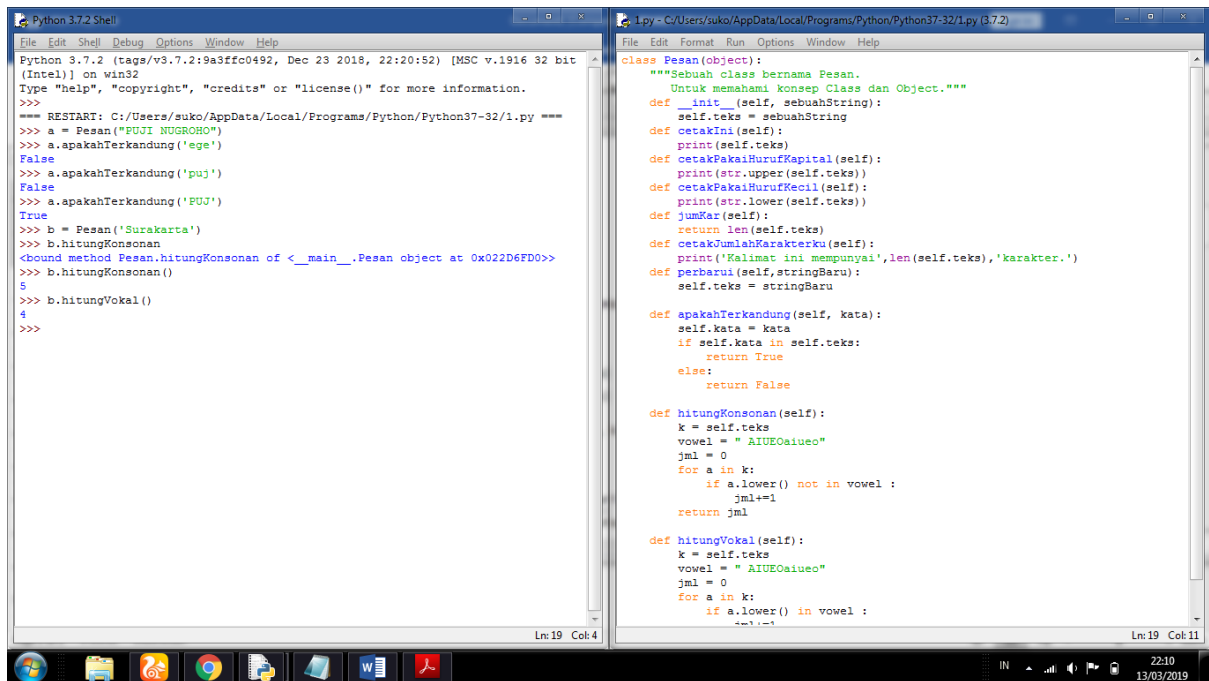


NAMA : PUJI NUGROHO
NIM : L200170123
KELAS : D
MODUL : 2

NOMOR 1



```
Python 3.7.2 Shell
File Edit Shell Debug Options Window Help
Python 3.7.2 (tags/v3.7.2:9a3ffe0492, Dec 23 2018, 22:20:52) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
==== RESTART: C:/Users/suko/AppData/Local/Programs/Python/Python37-32/1.py ====
>>> a = Pesan("PUJI NUGROHO")
>>> a.apakahTerKandung('ege')
False
>>> a.apakahTerKandung('puj')
False
>>> a.apakahTerKandung('PUJ')
True
>>> b = Pesan('Surakarta')
>>> b.hitungKonsonan
<bound method Pesan.hitungKonsonan of <__main__.Pesan object at 0x022D6FD0>
>>> b.hitungKonsonan()
5
>>> b.hitungVokal()
4
>>>
```

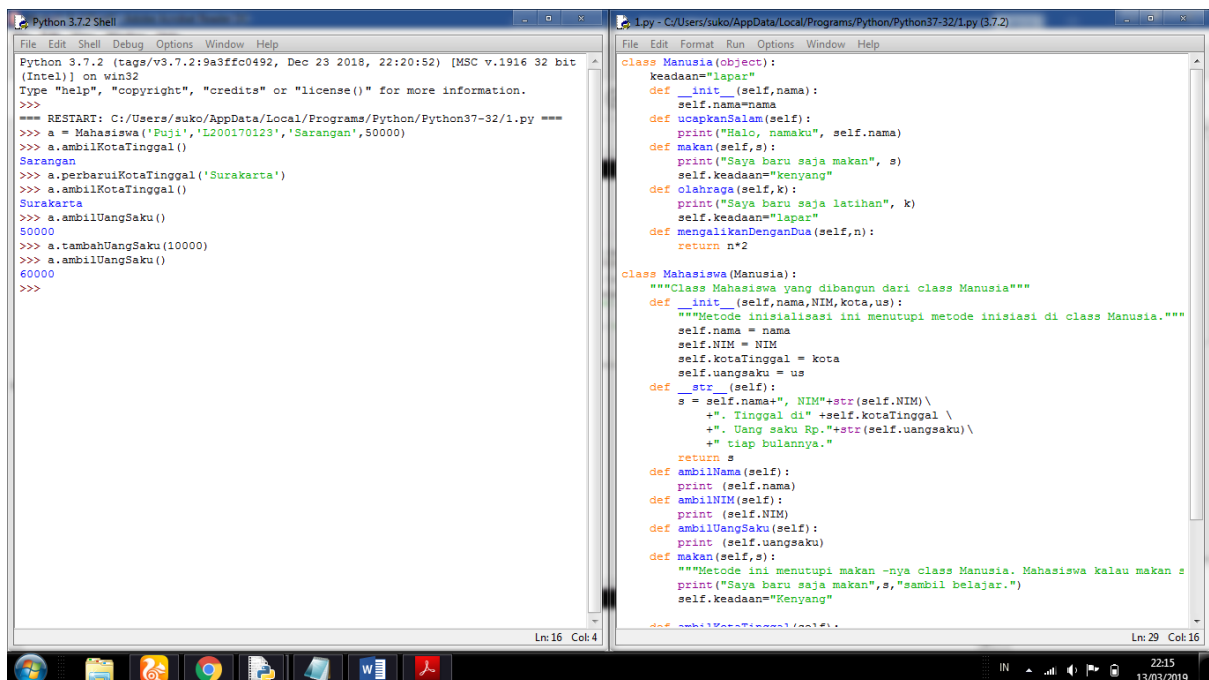
```
Lpy - C:/Users/suko/AppData/Local/Programs/Python/Python37-32/1.py (3.7.2)
File Edit Format Run Options Window Help
class Pesan(object):
    """Sebuah class bernama Pesan.
    Untuk memahami konsep Class dan Object."""
    def __init__(self, sebuahString):
        self.teks = sebuahString
    def cetakIni(self):
        print(self.teks)
    def cetakKarakterHurufKapital(self):
        print(str.upper(self.teks))
    def cetakKarakterHurufKecil(self):
        print(str.lower(self.teks))
    def jumlahKarakter(self):
        return len(self.teks)
    def cetakJumlahKarakterku(self):
        print('Kalimat ini mempunyai',len(self.teks),'karakter.')
    def perbarui(self,stringBaru):
        self.teks = stringBaru

    def apakahTerKandung(self, kata):
        self.kata = kata
        if self.kata in self.teks:
            return True
        else:
            return False

    def hitungKonsonan(self):
        k = self.teks
        vowel = " AIUEOaiueo"
        jml = 0
        for a in k:
            if a.lower() not in vowel :
                jml+=1
        return jml

    def hitungVokal(self):
        k = self.teks
        vowel = " AIUEOaiueo"
        jml = 0
        for a in k:
            if a.lower() in vowel :
                jml+=1
        return jml
```

NOMOR 2

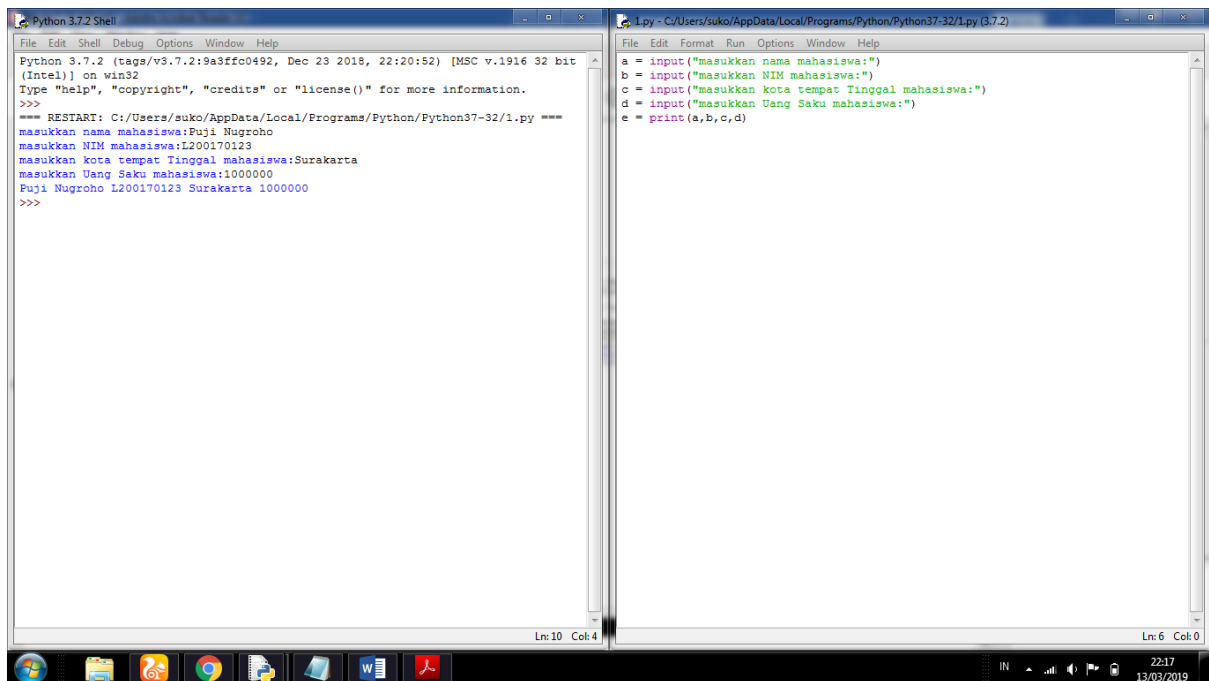


```
Python 3.7.2 Shell
File Edit Shell Debug Options Window Help
Python 3.7.2 (tags/v3.7.2:9a3ffe0492, Dec 23 2018, 22:20:52) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
==== RESTART: C:/Users/suko/AppData/Local/Programs/Python/Python37-32/1.py ====
>>> a = Mahasiswa('Puji', 'L200170123', 'Surangan', 50000)
>>> a.ambilKotaTinggal()
Surangan
>>> a.perbaruiKotaTinggal('Surakarta')
>>> a.ambilKotaTinggal()
Surakarta
>>> a.ambilUangSaku()
50000
>>> a.tambahUangSaku(10000)
>>> a.ambilUangSaku()
60000
>>>
```

```
Lpy - C:/Users/suko/AppData/Local/Programs/Python/Python37-32/1.py (3.7.2)
File Edit Format Run Options Window Help
class Manusia(object):
    keadaan="lapar"
    def __init__(self,nama):
        self.nama=nama
    def ucapkanSalam(self):
        print("Halo, namaku", self.nama)
    def makan(self,s):
        print("Saya baru saja makan", s)
        self.keadaan="kenyang"
    def olahraga(self,k):
        print("Saya baru saja latihan", k)
        self.keadaan="lapar"
    def mengalikanDua(n):
        return n*2

class Mahasiswa(Manusia):
    """Class Mahasiswa yang dibangun dari class Manusia"""
    def __init__(self,nama,NIM,kota,us):
        """Metode inisialisasi ini menutupi metode inisiasi di class Manusia."""
        self.nama = nama
        self.NIM = NIM
        self.kotaTinggal = kota
        self.uangSaku = us
    def __str__(self):
        s = self.nama+", NIM"+str(self.NIM)\
            +". Tinggal di" +self.kotaTinggal \
            +". Uang saku Rp."+str(self.uangSaku)\
            +" tiap bulannya."
        return s
    def ambilNama(self):
        print (self.nama)
    def ambilNIM(self):
        print (self.NIM)
    def ambilUangSaku(self):
        print (self.uangSaku)
    def makan(self,s):
        """Metode ini menutupi makan -nya class Manusia. Mahasiswa kalau makan sambil belajar."""
        print("Saya baru saja makan",s,"sambil belajar.")
        self.keadaan="kenyang"
    def ambilKotaTinggal(self):
```

NOMOR 3

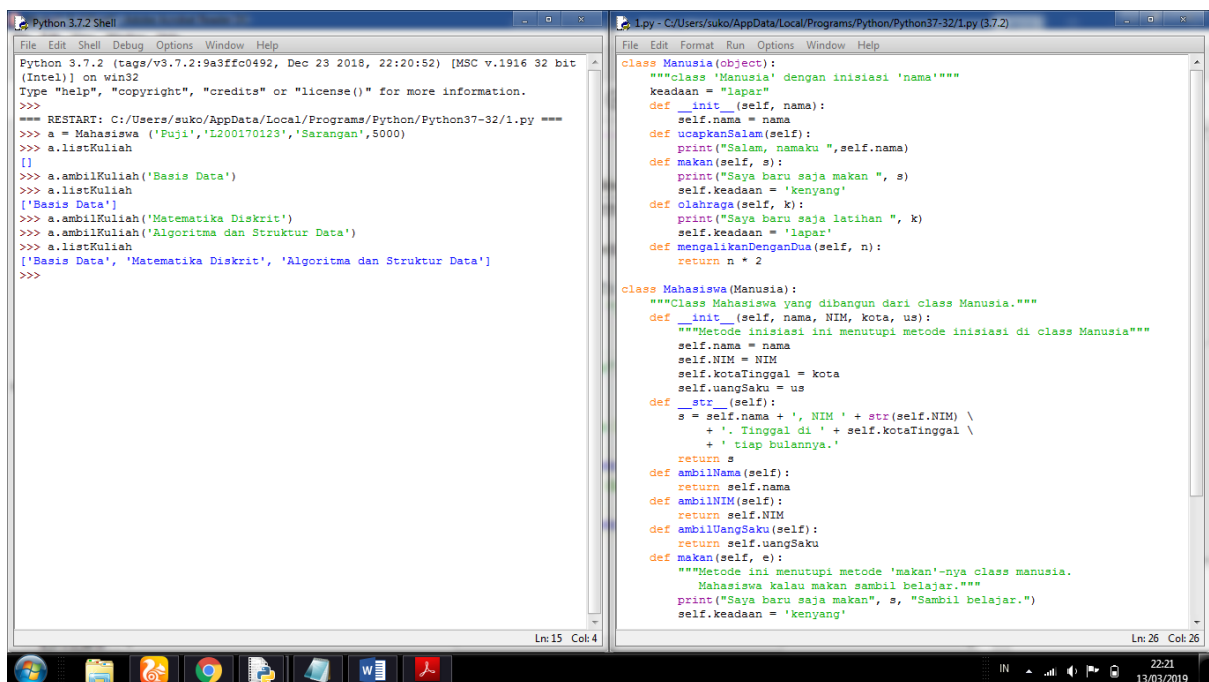


The screenshot shows two side-by-side Windows command prompt windows. The left window is titled 'Python 3.7.2 Shell' and shows the Python 3.7.2 shell interface. The right window is titled 'lpy - C:/Users/suko/AppData/Local/Programs/Python/Python37-32/lpy (3.7.2)' and shows a Python script being executed.

```
Python 3.7.2 Shell
File Edit Shell Debug Options Window Help
Python 3.7.2 (tags/v3.7.2:9a3ffe0492, Dec 23 2018, 22:20:52) [MSC v.1916 32 bit
(Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
==== RESTART: C:/Users/suko/AppData/Local/Programs/Python/Python37-32/1.py ====
masukkan nama mahasiswa:Puji Nugroho
masukkan NIM mahasiswa:L200170123
masukkan kota tempat tinggal mahasiswa:Surakarta
masukkan Uang Saku mahasiswa:1000000
Puji Nugroho L200170123 Surakarta 1000000
>>>
```

```
lpy - C:/Users/suko/AppData/Local/Programs/Python/Python37-32/lpy (3.7.2)
File Edit Format Run Options Window Help
a = input("masukkan nama mahasiswa:")
b = input("masukkan NIM mahasiswa:")
c = input("masukkan kota tempat tinggal mahasiswa:")
d = input("masukkan Uang Saku mahasiswa:")
e = print(a,b,c,d)
```

NOMOR 4



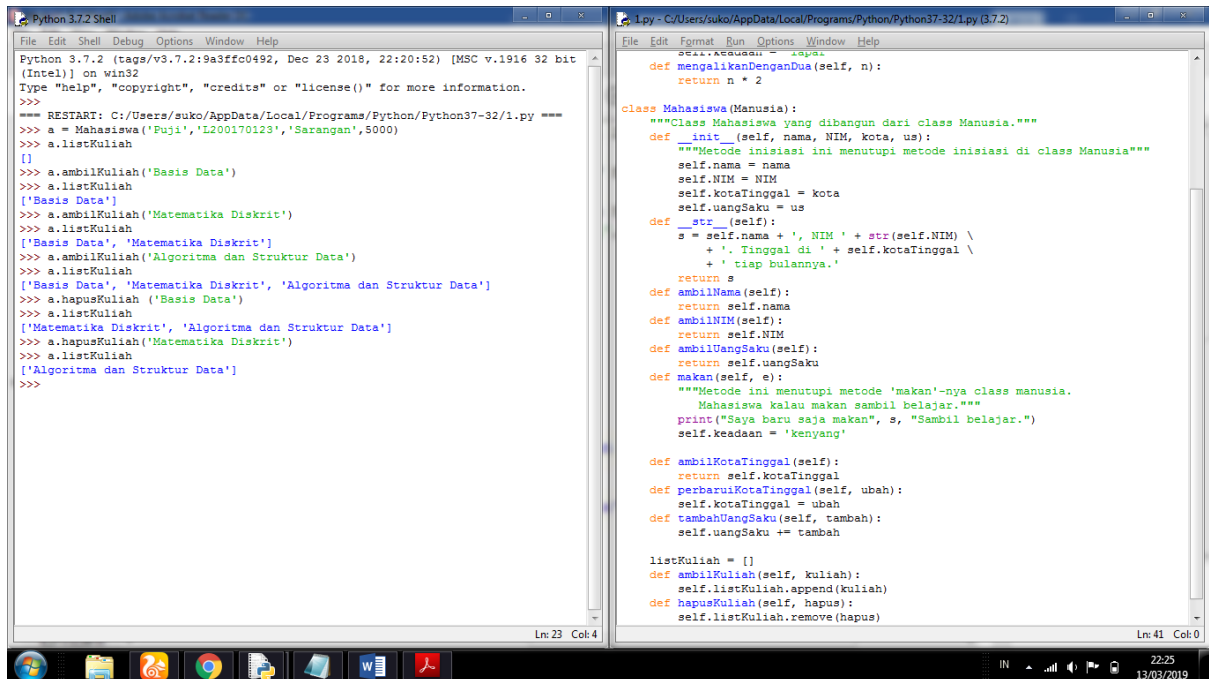
The screenshot shows two side-by-side Windows command prompt windows. The left window is titled 'Python 3.7.2 Shell' and shows the Python 3.7.2 shell interface. The right window is titled 'lpy - C:/Users/suko/AppData/Local/Programs/Python/Python37-32/lpy (3.7.2)' and shows a Python script being executed.

```
Python 3.7.2 Shell
File Edit Shell Debug Options Window Help
Python 3.7.2 (tags/v3.7.2:9a3ffe0492, Dec 23 2018, 22:20:52) [MSC v.1916 32 bit
(Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
==== RESTART: C:/Users/suko/AppData/Local/Programs/Python/Python37-32/1.py ====
>>> a = Mahasiswa ('Puji','L200170123','Sarangan',5000)
>>> a.listKuliah
[]
>>> a.ambilKuliah('Basis Data')
>>> a.listKuliah
['Basis Data']
>>> a.ambilKuliah('Matematika Diskrit')
>>> a.ambilKuliah('Algoritma dan Struktur Data')
>>> a.listKuliah
['Basis Data', 'Matematika Diskrit', 'Algoritma dan Struktur Data']
>>>
```

```
lpy - C:/Users/suko/AppData/Local/Programs/Python/Python37-32/lpy (3.7.2)
File Edit Format Run Options Window Help
class Manusia(object):
    """class 'Manusia' dengan inisiasi 'nama'"""
    keadaan = 'lapar'
    def __init__(self, nama):
        self.nama = nama
    def ucapkanSalam(self):
        print("Salam, namaku ",self.nama)
    def makan(self, s):
        print("Saya baru saja makan ", s)
        self.keadaan = 'kenyang'
    def olahraga(self, k):
        print("Saya baru saja latihan ", k)
        self.keadaan = 'lapar'
    def mengalikanDua(n):
        return n * 2

class Mahasiswa(Manusia):
    """Class Mahasiswa yang dibangun dari class Manusia."""
    def __init__(self, nama, NIM, kota, us):
        """Metode inisiasi ini menutupi metode inisiasi di class Manusia"""
        self.nama = nama
        self.NIM = NIM
        self.kotaTinggal = kota
        self.uangSaku = us
    def __str__(self):
        s = self.nama + ', NIM ' + str(self.NIM) \
            + '. Tinggal di ' + self.kotaTinggal \
            + ' tiap bulannya.'
        return s
    def ambilNama(self):
        return self.nama
    def ambilNIM(self):
        return self.NIM
    def ambilUangSaku(self):
        return self.uangSaku
    def makan(self, s):
        """Metode ini menutupi metode 'makan'-nya class manusia.
        Mahasiswa kalau makan sambil belajar."""
        print("Saya baru saja makan", s, "Sambil belajar.")
        self.keadaan = 'kenyang'
```

NOMOR 5



The image shows two side-by-side Python 3.7.2 Shell windows. The left window displays the execution of a script that creates a Mahasiswa object and interacts with its methods. The right window shows the source code of the script.

```
Python 3.7.2 Shell
File Edit Shell Debug Options Window Help
Python 3.7.2 (tags/v3.7.2:9a3ffe0492, Dec 23 2018, 22:20:52) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
=== RESTART: C:/Users/suko/AppData/Local/Programs/Python/Python37-32/1.py ===
>>> a = Mahasiswa('Puji', 'L200170123', 'Sarangan', 5000)
>>> a.listKuliah
[]
>>> a.ambilKuliah('Basis Data')
>>> a.listKuliah
['Basis Data']
>>> a.ambilKuliah('Matematika Diskrit')
>>> a.listKuliah
['Basis Data', 'Matematika Diskrit']
>>> a.ambilKuliah('Algoritma dan Struktur Data')
>>> a.listKuliah
['Basis Data', 'Matematika Diskrit', 'Algoritma dan Struktur Data']
>>> a.hapusKuliah('Basis Data')
>>> a.listKuliah
['Matematika Diskrit', 'Algoritma dan Struktur Data']
>>> a.hapusKuliah('Matematika Diskrit')
>>> a.listKuliah
['Algoritma dan Struktur Data']
>>>
```

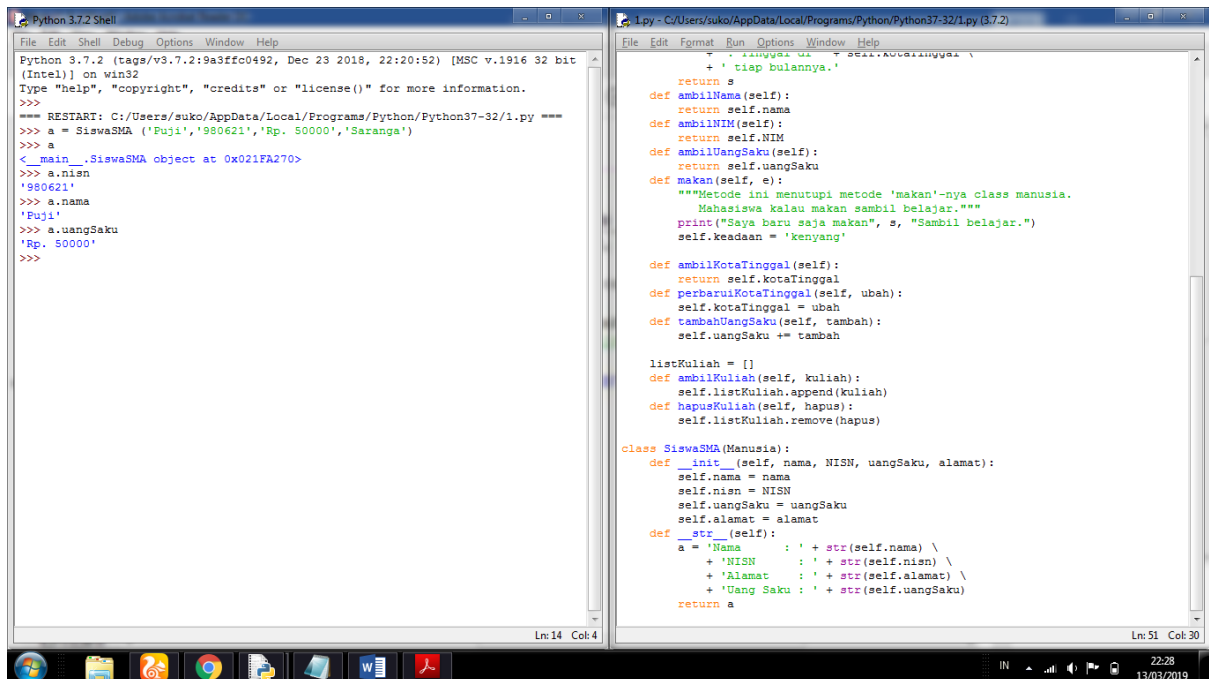
```
lpy - C:/Users/suko/AppData/Local/Programs/Python/Python37-32/1.py (3.7.2)
File Edit Format Run Options Window Help
def __del__(self):
    del self.keadaan
def __mengalikanDua(self, n):
    return n * 2

class Mahasiswa(Manusia):
    """Class Mahasiswa yang dibangun dari class Manusia."""
    def __init__(self, nama, NIM, kota, us):
        """Metode inisiasi ini menutupi metode inisiasi di class Manusia"""
        self.nama = nama
        self.NIM = NIM
        self.kotaTinggal = kota
        self.uangSaku = us
    def __str__(self):
        s = self.nama + ', NIM ' + str(self.NIM) \
            + '. Tinggal di ' + self.kotaTinggal \
            + ' tiap bulannya.'
        return s
    def ambilNama(self):
        return self.nama
    def ambilNIM(self):
        return self.NIM
    def ambilUangSaku(self):
        return self.uangSaku
    def makan(self, e):
        """Metode ini menutupi metode 'makan'-nya class manusia.
        Mahasiswa kalau makan sambil belajar."""
        print("Saya baru saja makan", s, "Sambil belajar.")
        self.keadaan = 'kenyang'

    def ambilKotaTinggal(self):
        return self.kotaTinggal
    def perbaruiKotaTinggal(self, ubah):
        self.kotaTinggal = ubah
    def tambahUangSaku(self, tambah):
        self.uangSaku += tambah

listKuliah = []
def ambilKuliah(self, kuliah):
    self.listKuliah.append(kuliah)
def hapusKuliah(self, hapus):
    self.listKuliah.remove(hapus)
```

NOMOR 6



The image shows two side-by-side Python 3.7.2 Shell windows. The left window displays the execution of a script that creates a SiswaSMA object and interacts with its methods. The right window shows the source code of the script.

```
Python 3.7.2 Shell
File Edit Shell Debug Options Window Help
Python 3.7.2 (tags/v3.7.2:9a3ffe0492, Dec 23 2018, 22:20:52) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
=== RESTART: C:/Users/suko/AppData/Local/Programs/Python/Python37-32/1.py ===
>>> a = SiswaSMA('Puji', '980621', 'Rp. 50000', 'Saranga')
>>> a
<_main_.SiswaSMA object at 0x021FA270>
>>> a.nisn
'980621'
>>> a.nama
'Puji'
>>> a.uangSaku
'Rp. 50000'
>>>
```

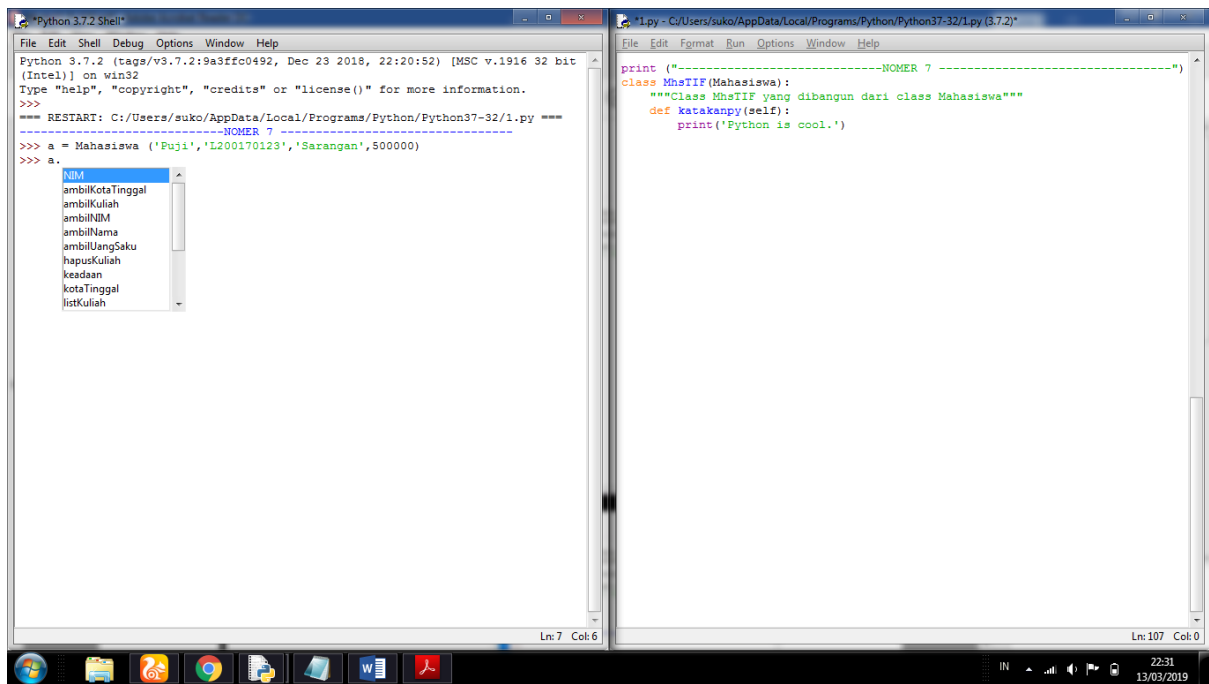
```
lpy - C:/Users/suko/AppData/Local/Programs/Python/Python37-32/1.py (3.7.2)
File Edit Format Run Options Window Help
def __del__(self):
    del self.keadaan
    del self.kotaTinggal
    return s
def ambilNama(self):
    return self.nama
def ambilNIM(self):
    return self.NIM
def ambilUangSaku(self):
    return self.uangSaku
def makan(self, e):
    """Metode ini menutupi metode 'makan'-nya class manusia.
    Mahasiswa kalau makan sambil belajar."""
    print("Saya baru saja makan", s, "Sambil belajar.")
    self.keadaan = 'kenyang'

def ambilKotaTinggal(self):
    return self.kotaTinggal
def perbaruiKotaTinggal(self, ubah):
    self.kotaTinggal = ubah
def tambahUangSaku(self, tambah):
    self.uangSaku += tambah

listKuliah = []
def ambilKuliah(self, kuliah):
    self.listKuliah.append(kuliah)
def hapusKuliah(self, hapus):
    self.listKuliah.remove(hapus)

class SiswaSMA(Manusia):
    def __init__(self, nama, NISN, uangSaku, alamat):
        self.nama = nama
        self.nisn = NISN
        self.uangSaku = uangSaku
        self.alamat = alamat
    def __str__(self):
        a = 'Nama      : ' + str(self.nama) \
            + 'NISN      : ' + str(self.nisn) \
            + 'Alamat    : ' + str(self.alamat) \
            + 'Uang Saku : ' + str(self.uangSaku)
        return a
```

NOMOR 7

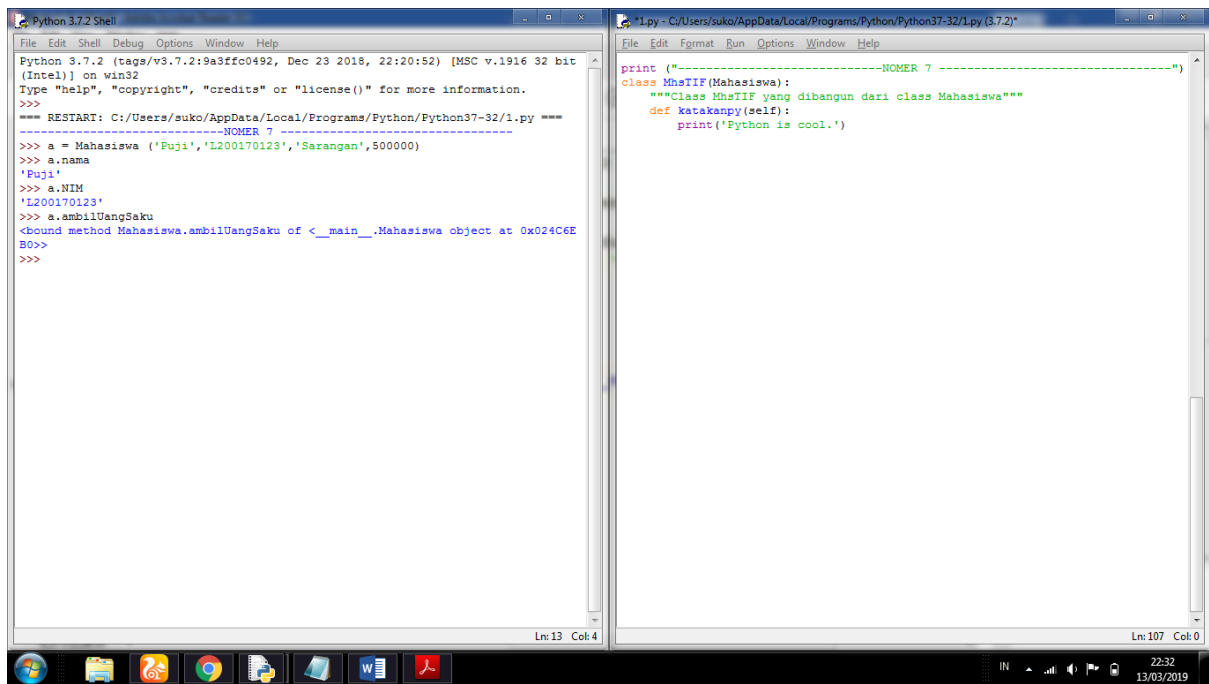


The screenshot shows two windows. The left window is a Python 3.7.2 Shell with the following content:

```
Python 3.7.2 (tags/v3.7.2:9a3ffc0492, Dec 23 2018, 22:20:52) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
=== RESTART: C:/Users/suko/AppData/Local/Programs/Python/Python37-32/1.py ===
>>> -----NOMER 7 -----
>>> a = Mahasiswa ('Puji', 'L200170123', 'Sarangan', 500000)
>>> a.
```

The right window is a Python script editor showing the following code:

```
print ("-----NOMER 7 -----")
class MhsTIF(Mahasiswa):
    """Class MhsTIF yang dibangun dari class Mahasiswa"""
    def katakanpy(self):
        print('Python is cool.')
```



The screenshot shows the same two windows as above, but the left window now shows the execution of the class hierarchy:

```
>>> a = Mahasiswa ('Puji', 'L200170123', 'Sarangan', 500000)
>>> a.nama
'Puji'
>>> a.NIM
'L200170123'
>>> a.ambilUangSaku
<bound method Mahasiswa.ambilUangSaku of <__main__.Mahasiswa object at 0x024C6E B0>
>>>
```

The right window remains the same as in the previous screenshot.