

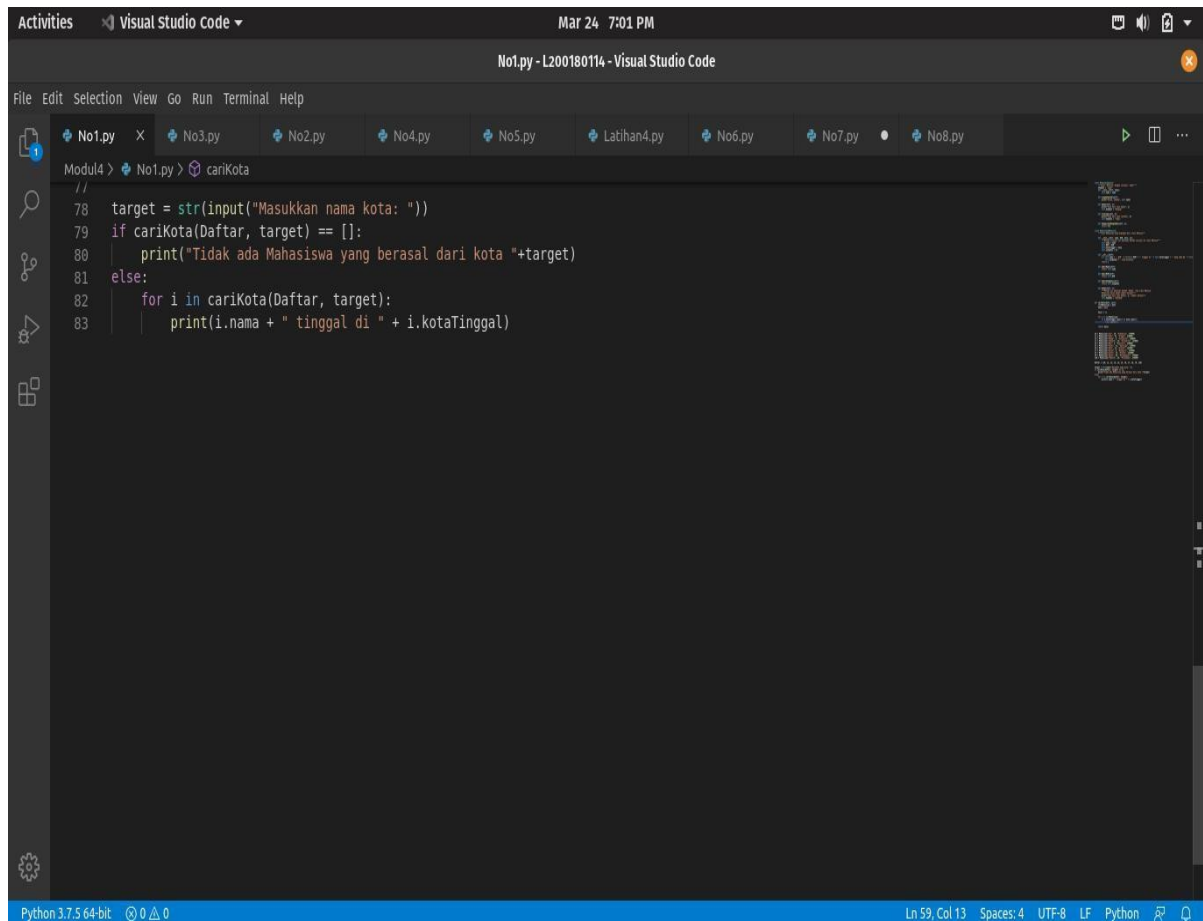
Nama : Karina Muslimah

NIM : L200180138

Kelas : E

Soal-soal untuk Mahasiswa

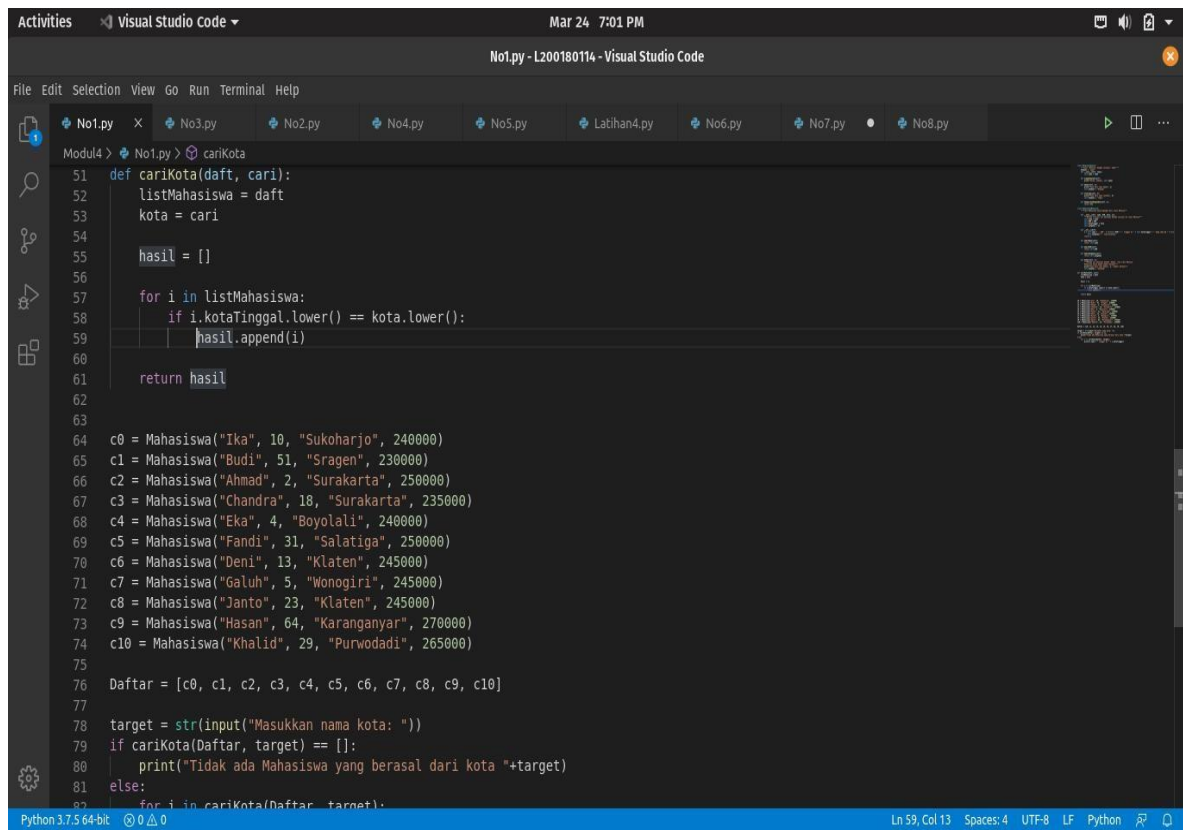
Soal Nomer 1



```
Modul4 > No1.py > cariKota
//
78 target = str(input("Masukkan nama kota: "))
79 if cariKota(Daftar, target) == []:
80     print("Tidak ada Mahasiswa yang berasal dari kota "+target)
81 else:
82     for i in cariKota(Daftar, target):
83         print(i.nama + " tinggal di " + i.kotaTinggal)
```

Python 3.7.5 64-bit 0 0 0 Ln 59, Col 13 Spaces: 4 UTF-8 LF Python

Coding



The screenshot shows the Visual Studio Code interface with a Python file named 'No1.py'. The code defines a function 'cariKota' that searches for students in a list 'Daftar' based on a 'target' city. The function iterates through the list and appends matching students to a 'hasil' list. Below the function, a list of student objects is created, each with attributes like name, age, city, and ID. The 'Daftar' list is then populated with these objects. The script prompts the user to enter a city name and prints the results or a message if no students are found.

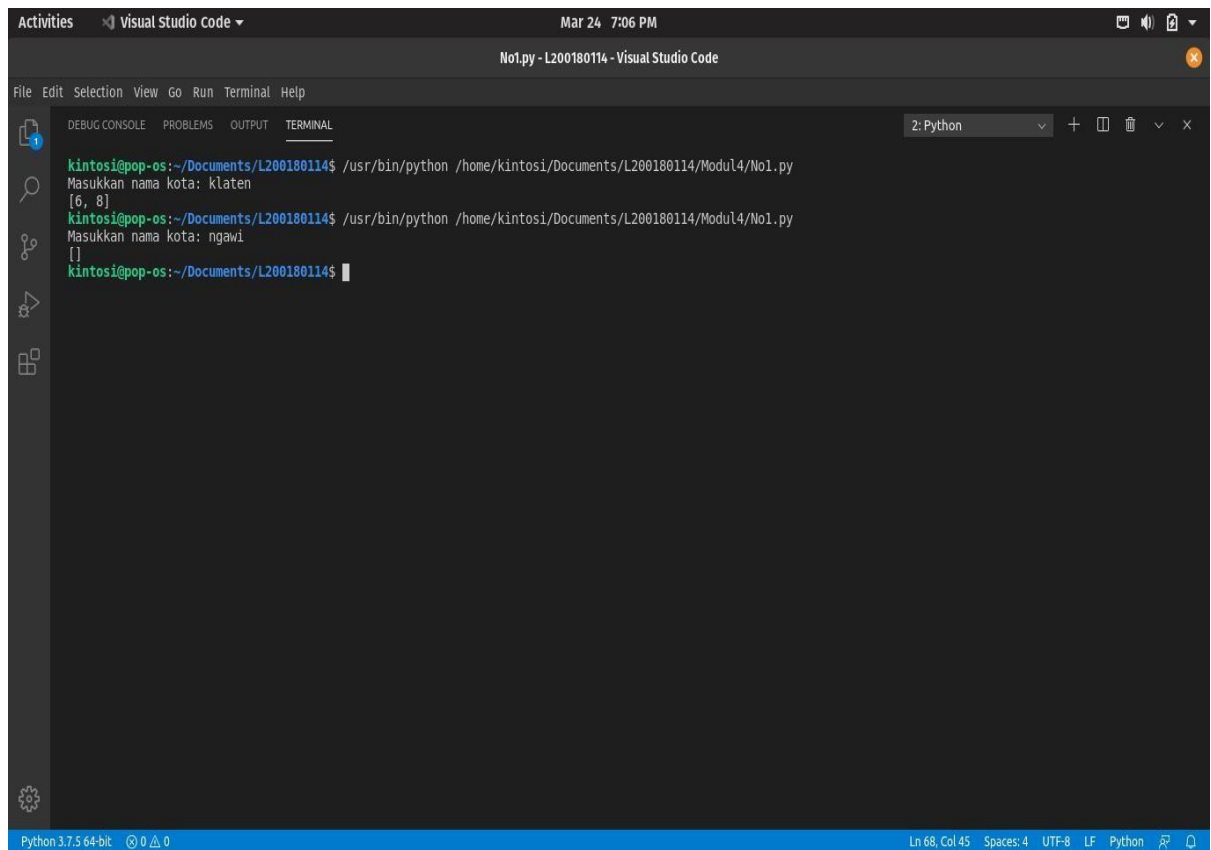
```
51 def cariKota(daft, cari):
52     listMahasiswa = daft
53     kota = cari
54
55     hasil = []
56
57     for i in listMahasiswa:
58         if i.kotaTinggal.lower() == kota.lower():
59             hasil.append(i)
60
61     return hasil
62
63
64 c0 = Mahasiswa("Ika", 10, "Sukoharjo", 240000)
65 c1 = Mahasiswa("Budi", 51, "Sragen", 230000)
66 c2 = Mahasiswa("Ahmad", 2, "Surakarta", 250000)
67 c3 = Mahasiswa("Chandra", 18, "Surakarta", 235000)
68 c4 = Mahasiswa("Eka", 4, "Boyolali", 240000)
69 c5 = Mahasiswa("Fandi", 31, "Salatiga", 250000)
70 c6 = Mahasiswa("Deni", 13, "Klaten", 245000)
71 c7 = Mahasiswa("Galuh", 5, "Wonogiri", 245000)
72 c8 = Mahasiswa("Janto", 23, "Klaten", 245000)
73 c9 = Mahasiswa("Hasan", 64, "Karanganyar", 270000)
74 c10 = Mahasiswa("Khalid", 29, "Purwodadi", 265000)
75
76 Daftar = [c0, c1, c2, c3, c4, c5, c6, c7, c8, c9, c10]
77
78 target = str(input("Masukkan nama kota: "))
79 if cariKota(Daftar, target) == []:
80     print("Tidak ada Mahasiswa yang berasal dari kota "+target)
81 else:
82     for i in cariKota(Daftar, target):
```

Python 3.7.5 64-bit | 0 0 | Ln 59, Col 13 | Spaces: 4 | UTF-8 | LF | Python

Soal Nomer 2

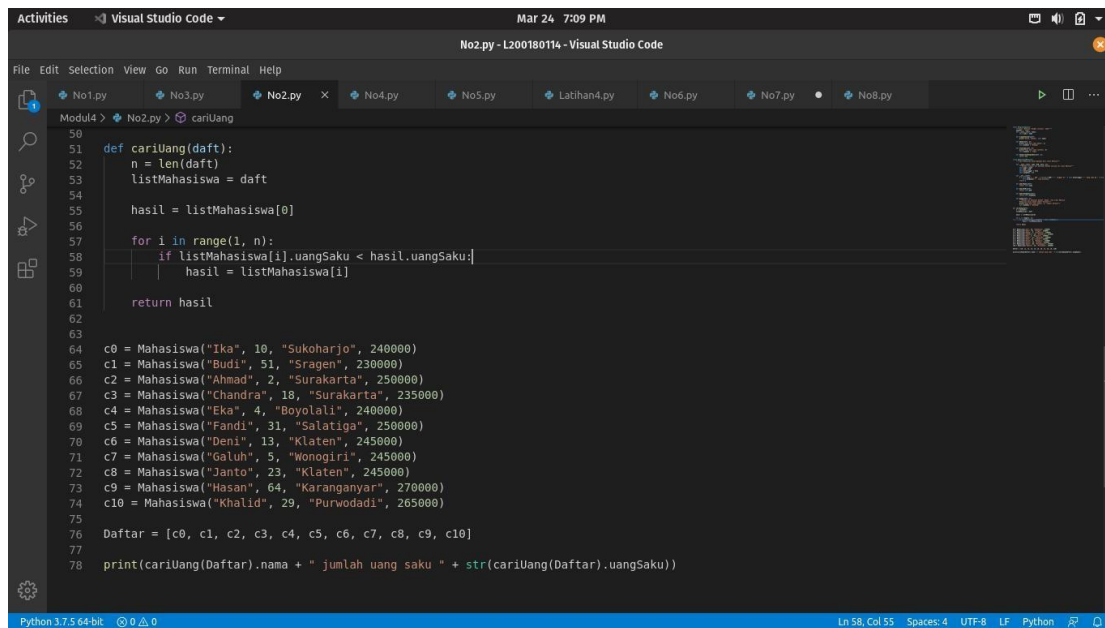
Coding

Hasil



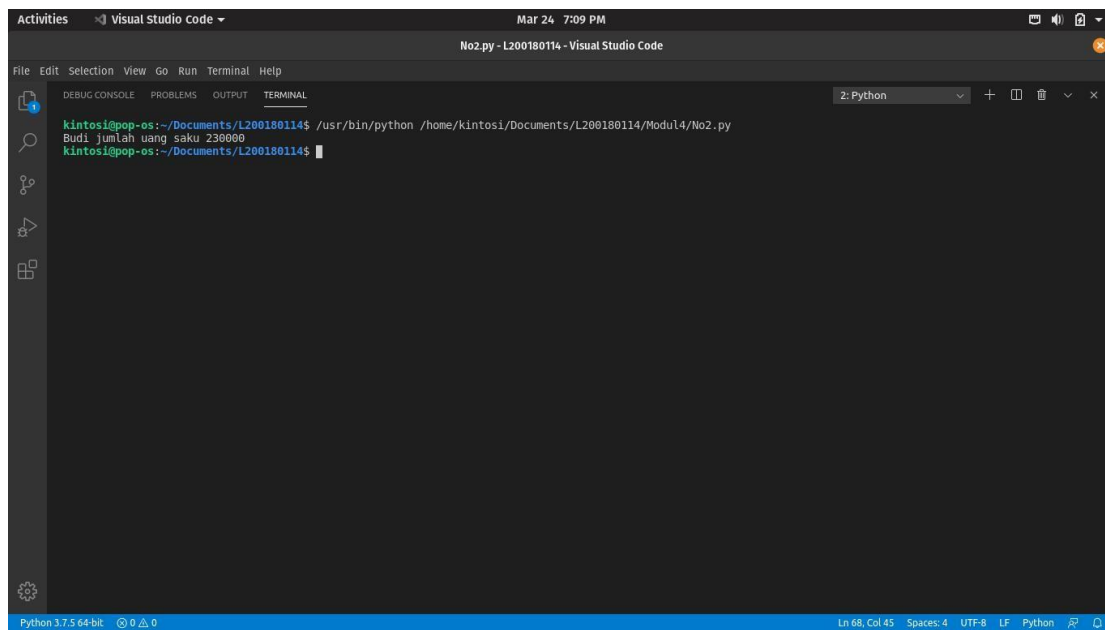
```
Activities Visual Studio Code Mar 24 7:06 PM
No1.py - L200180114 - Visual Studio Code
File Edit Selection View Go Run Terminal Help
DEBUG CONSOLE PROBLEMS OUTPUT TERMINAL 2: Python
kintosi@pop-os:~/Documents/L200180114$ /usr/bin/python /home/kintosi/Documents/L200180114/Modul4/No1.py
Masukkan nama kota: Klaten
[6, 8]
kintosi@pop-os:~/Documents/L200180114$ /usr/bin/python /home/kintosi/Documents/L200180114/Modul4/No1.py
Masukkan nama kota: ngawi
[]
kintosi@pop-os:~/Documents/L200180114$
```

Python 3.7.5 64-bit 0 0 0 Ln 68, Col 45 Spaces: 4 UTF-8 LF Python



```
50
51 def cariUang(daft):
52     n = len(daft)
53     listMahasiswa = daft
54
55     hasil = listMahasiswa[0]
56
57     for i in range(1, n):
58         if listMahasiswa[i].uangSaku < hasil.uangSaku:
59             hasil = listMahasiswa[i]
60
61     return hasil
62
63
64 c0 = Mahasiswa("Ika", 10, "Sukoharjo", 240000)
65 c1 = Mahasiswa("Budi", 51, "Sragen", 230000)
66 c2 = Mahasiswa("Ahmad", 2, "Surakarta", 250000)
67 c3 = Mahasiswa("Chandra", 18, "Surakarta", 235000)
68 c4 = Mahasiswa("Eka", 4, "Boyolali", 240000)
69 c5 = Mahasiswa("Fandi", 31, "Salatiga", 250000)
70 c6 = Mahasiswa("Deni", 13, "Klaten", 245000)
71 c7 = Mahasiswa("Galuh", 5, "Wonogiri", 245000)
72 c8 = Mahasiswa("Janto", 23, "Klaten", 245000)
73 c9 = Mahasiswa("Hasan", 64, "Karanganyar", 270000)
74 c10 = Mahasiswa("Khalid", 29, "Purwodadi", 265000)
75
76 Daftar = [c0, c1, c2, c3, c4, c5, c6, c7, c8, c9, c10]
77
78 print(cariUang(Daftar).nama + " jumlah uang saku " + str(cariUang(Daftar).uangSaku))
```

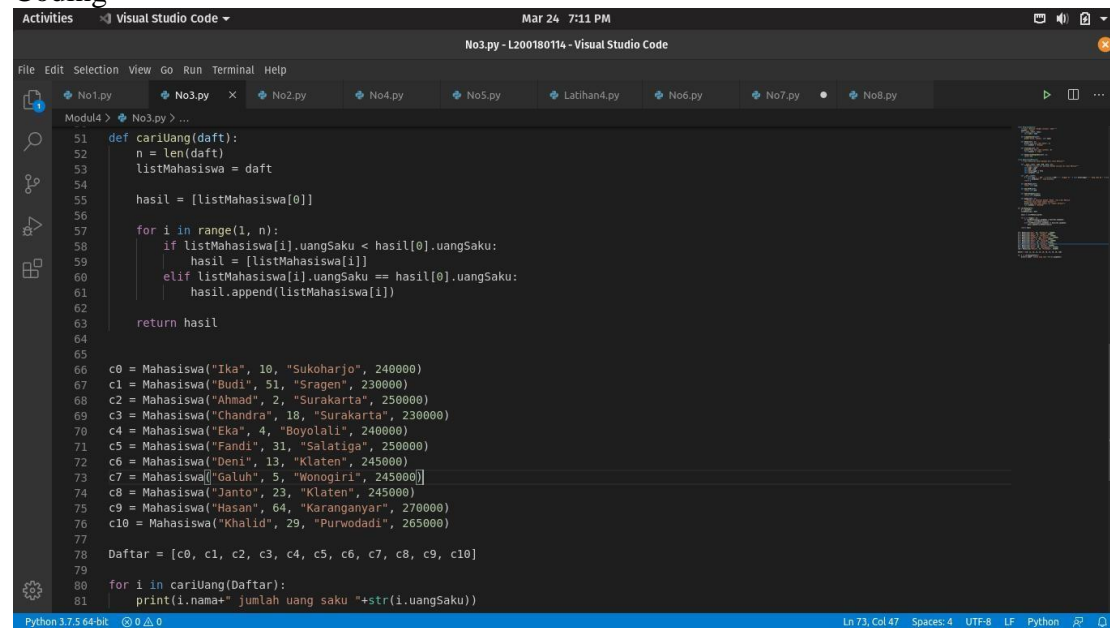
Hasil



```
kintosi@pop-os: ~/Documents/L200180114$ /usr/bin/python /home/kintosi/Documents/L200180114/Modul4/No2.py
Budi jumlah uang saku 230000
kintosi@pop-os: ~/Documents/L200180114$
```

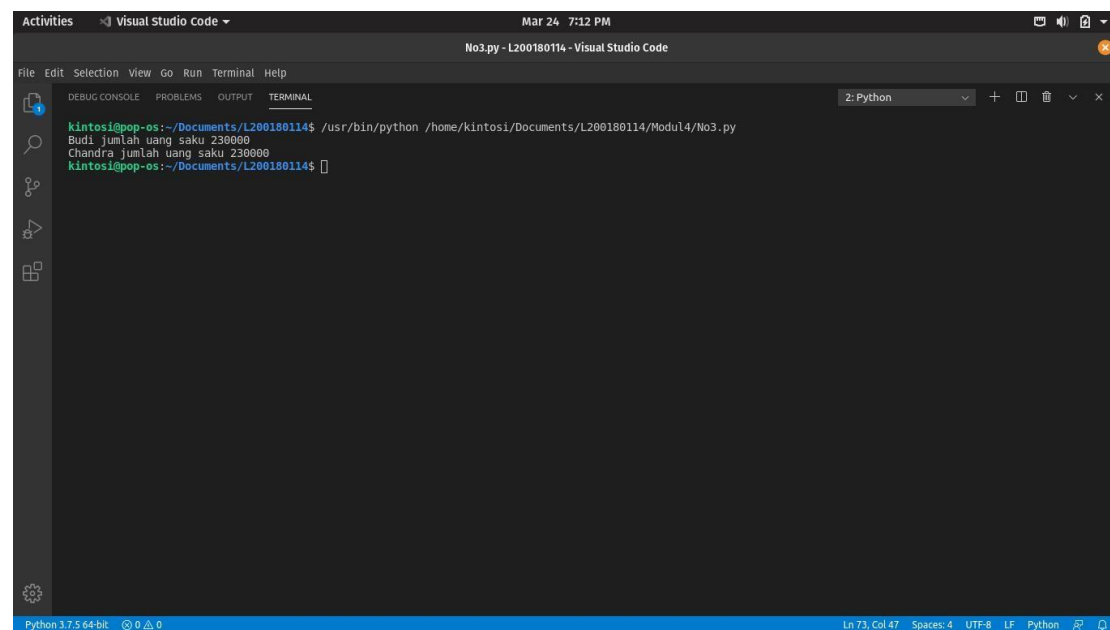
Soal Nomer 4

Coding



```
51 def cariUang(daftar):
52     n = len(daftar)
53     listMahasiswa = daftar
54
55     hasil = [listMahasiswa[0]]
56
57     for i in range(1, n):
58         if listMahasiswa[i].uangSaku < hasil[0].uangSaku:
59             hasil = [listMahasiswa[i]]
60         elif listMahasiswa[i].uangSaku == hasil[0].uangSaku:
61             hasil.append(listMahasiswa[i])
62
63     return hasil
64
65
66 c0 = Mahasiswa("Ika", 10, "Sukoharjo", 240000)
67 c1 = Mahasiswa("Budi", 51, "Sragen", 230000)
68 c2 = Mahasiswa("Ahmad", 2, "Surakarta", 250000)
69 c3 = Mahasiswa("Chandra", 10, "Surakarta", 230000)
70 c4 = Mahasiswa("Eka", 4, "Boyolali", 240000)
71 c5 = Mahasiswa("Fandi", 31, "Salatiga", 250000)
72 c6 = Mahasiswa("Deni", 13, "Klaten", 245000)
73 c7 = Mahasiswa("Galuh", 5, "Wonogiri", 245000)
74 c8 = Mahasiswa("Janto", 23, "Klaten", 245000)
75 c9 = Mahasiswa("Hasan", 64, "Karanganyar", 270000)
76 c10 = Mahasiswa("Khalid", 29, "Purwodadi", 265000)
77
78 Daftar = [c0, c1, c2, c3, c4, c5, c6, c7, c8, c9, c10]
79
80 for i in cariUang(Daftar):
81     print(i.nama+" jumlah uang saku "+str(i.uangSaku))
```

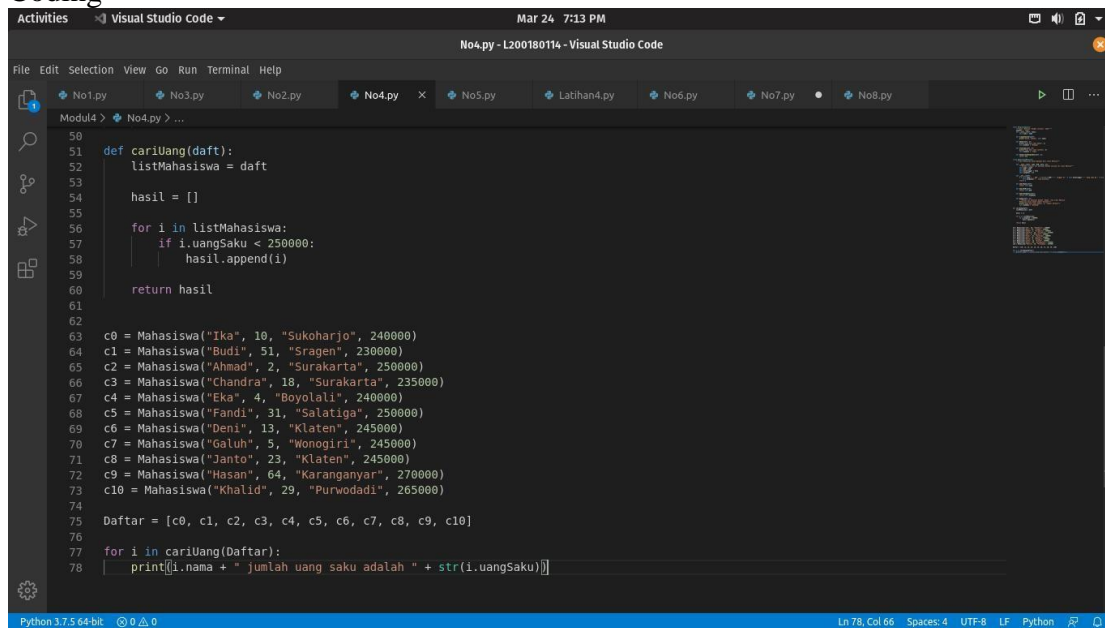
Hasil



```
kintosi@pop-os:~/Documents/L200180114$ /usr/bin/python /home/kintosi/Documents/L200180114/Modul4/No3.py
Budi jumlah uang saku 230000
Chandra jumlah uang saku 230000
kintosi@pop-os:~/Documents/L200180114$
```

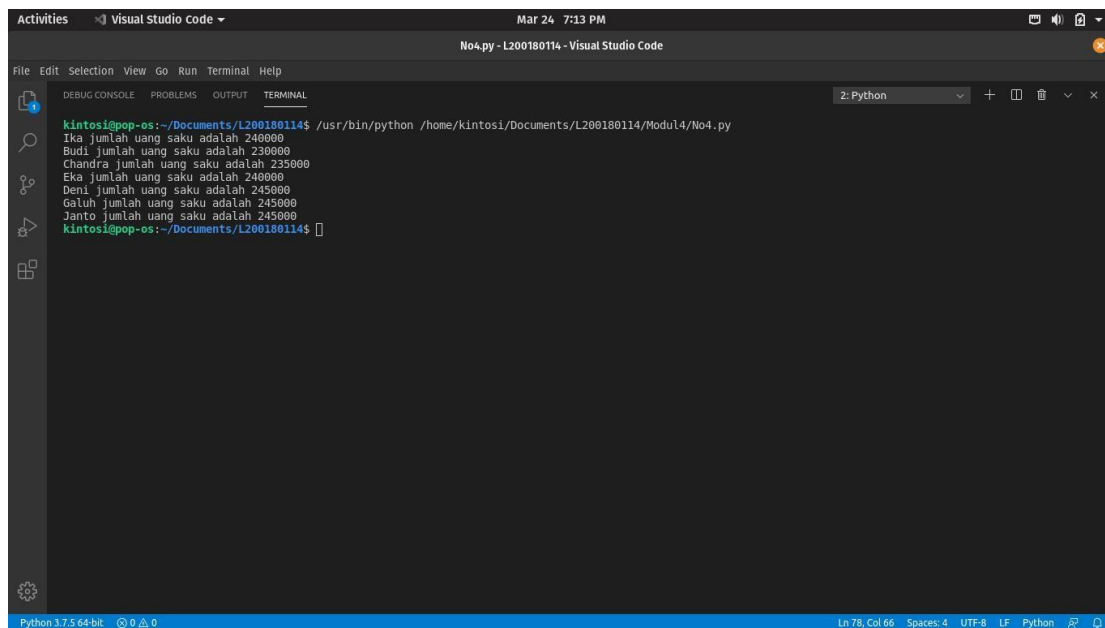
Soal Nomer 5

Coding



```
50
51 def cariUang(daftar):
52     listMahasiswa = daftar
53
54     hasil = []
55
56     for i in listMahasiswa:
57         if i.uangSaku < 250000:
58             hasil.append(i)
59
60     return hasil
61
62
63 c0 = Mahasiswa("Ika", 10, "Sukoharjo", 240000)
64 c1 = Mahasiswa("Budi", 51, "Sragen", 230000)
65 c2 = Mahasiswa("Ahmad", 2, "Surakarta", 250000)
66 c3 = Mahasiswa("Chandra", 18, "Surakarta", 235000)
67 c4 = Mahasiswa("Eka", 4, "Boyolali", 240000)
68 c5 = Mahasiswa("Fandi", 31, "Salatiga", 250000)
69 c6 = Mahasiswa("Deni", 13, "Klaten", 245000)
70 c7 = Mahasiswa("Galuh", 5, "Wonogiri", 245000)
71 c8 = Mahasiswa("Janto", 23, "Klaten", 245000)
72 c9 = Mahasiswa("Hasan", 64, "Karanganyar", 270000)
73 c10 = Mahasiswa("Khalid", 29, "Purwodadi", 265000)
74
75 Daftar = [c0, c1, c2, c3, c4, c5, c6, c7, c8, c9, c10]
76
77 for i in cariUang(Daftar):
78     print(i.nama + " jumlah uang saku adalah " + str(i.uangSaku))
```

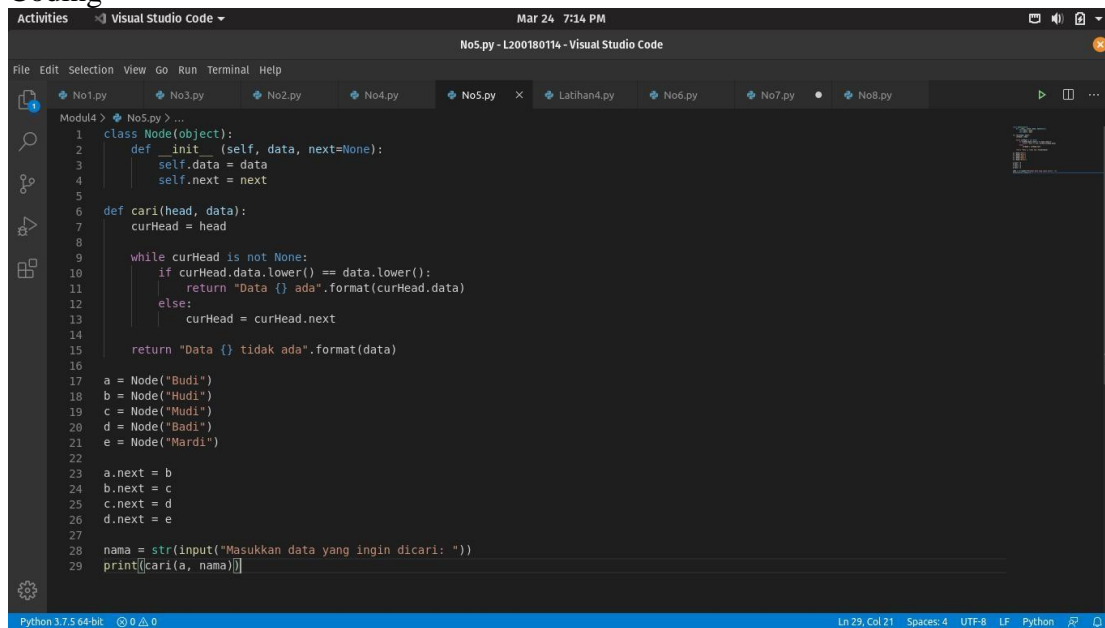
Hasil



```
kintosi@pop-os:~/Documents/L200180114$ /usr/bin/python /home/kintosi/Documents/L200180114/Modul4/No4.py
Ika jumlah uang saku adalah 240000
Budi jumlah uang saku adalah 230000
Chandra jumlah uang saku adalah 235000
Eka jumlah uang saku adalah 240000
Deni jumlah uang saku adalah 245000
Galuh jumlah uang saku adalah 245000
Janto jumlah uang saku adalah 245000
kintosi@pop-os:~/Documents/L200180114$
```

Soal Nomer 6

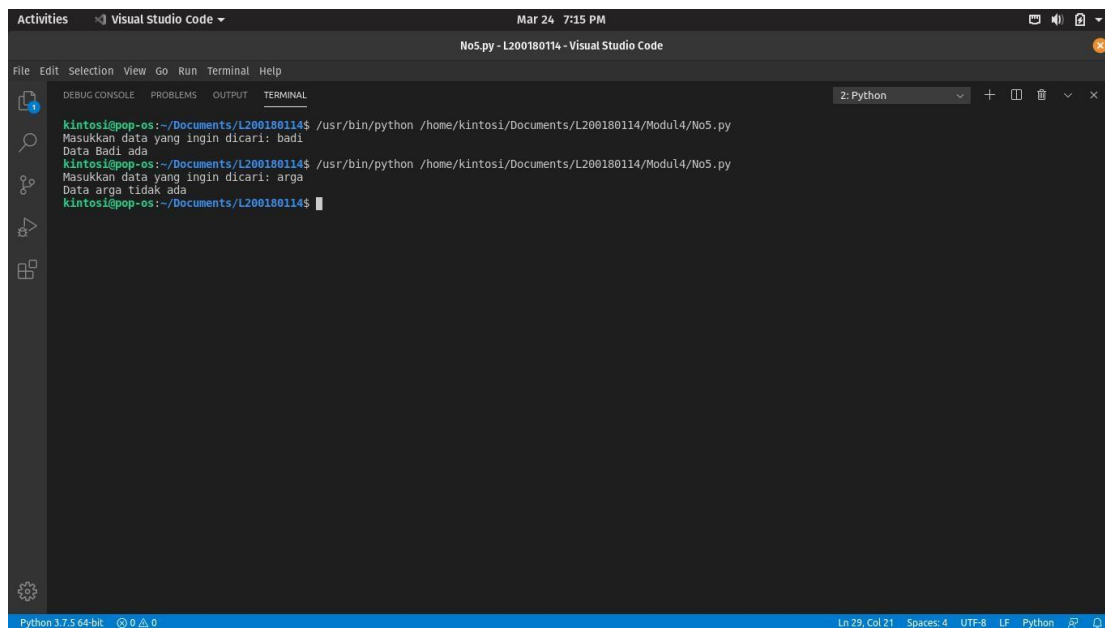
Coding



The screenshot shows the Visual Studio Code editor with a Python file named `No5.py`. The code implements a linked list structure and a search function. The linked list has five nodes with data: Budi, Hudi, Mudi, Badi, and Mardi. The search function `cari` takes a head pointer and a target data string. It traverses the list until it finds the target or reaches the end. The main code creates the nodes, links them, and prompts the user for input. The status bar at the bottom indicates Python 3.7.5 64-bit, UTF-8 encoding, and line 29, column 21.

```
1 class Node(object):
2     def __init__(self, data, next=None):
3         self.data = data
4         self.next = next
5
6 def cari(head, data):
7     curHead = head
8
9     while curHead is not None:
10        if curHead.data.lower() == data.lower():
11            return "Data {} ada".format(curHead.data)
12        else:
13            curHead = curHead.next
14
15    return "Data {} tidak ada".format(data)
16
17 a = Node("Budi")
18 b = Node("Hudi")
19 c = Node("Mudi")
20 d = Node("Badi")
21 e = Node("Mardi")
22
23 a.next = b
24 b.next = c
25 c.next = d
26 d.next = e
27
28 nama = str(input("Masukkan data yang ingin dicari: "))
29 print(cari(a, nama))
```

Hasil

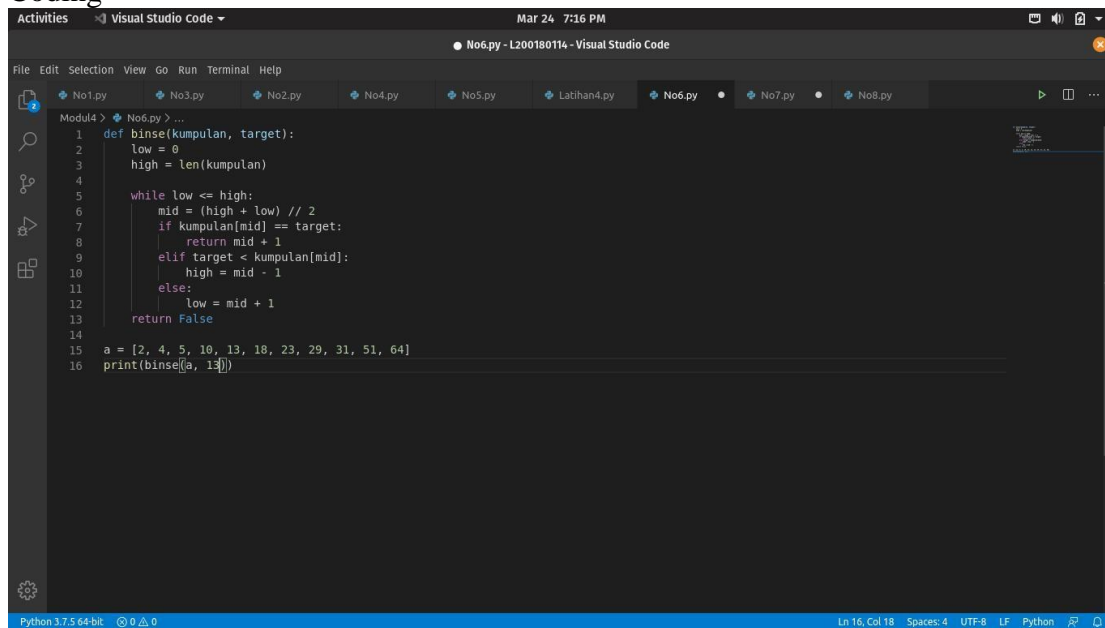


The screenshot shows the terminal output of the Python script. The user enters 'badi' and the program outputs 'Data Badi ada'. Then, the user enters 'arga' and the program outputs 'Data arga tidak ada'. The terminal window is titled '2: Python' and shows the command prompt `kintosi@pop-os:~/Documents/L200180114$`.

```
kintosi@pop-os:~/Documents/L200180114$ /usr/bin/python /home/kintosi/Documents/L200180114/Modul4/No5.py
Masukkan data yang ingin dicari: badi
Data Badi ada
kintosi@pop-os:~/Documents/L200180114$ /usr/bin/python /home/kintosi/Documents/L200180114/Modul4/No5.py
Masukkan data yang ingin dicari: arga
Data arga tidak ada
kintosi@pop-os:~/Documents/L200180114$
```

Soal Nomer 7

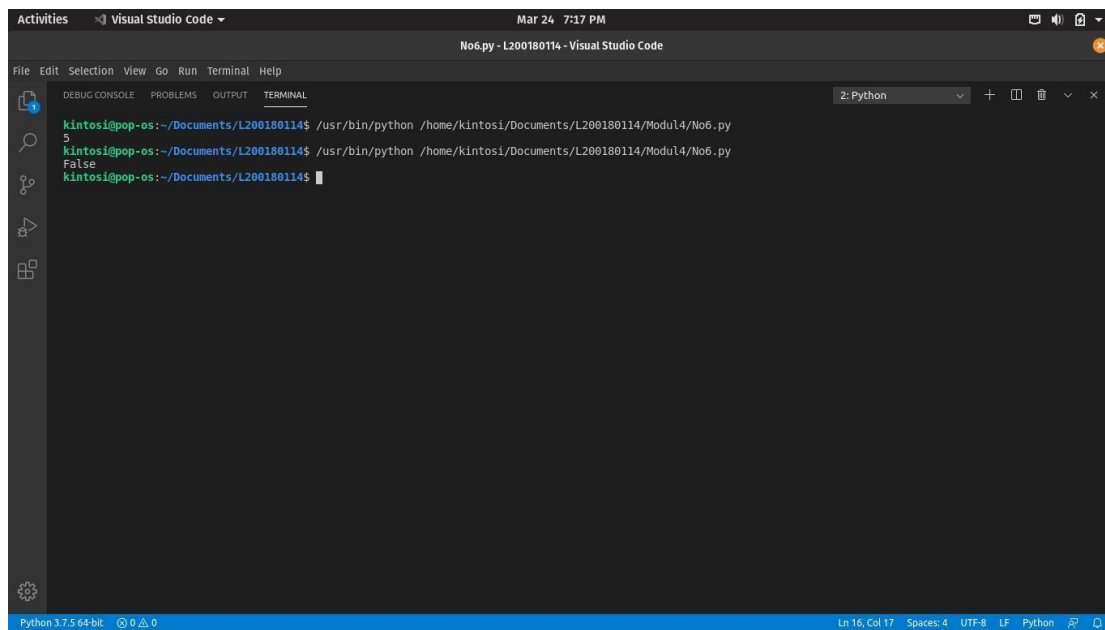
Coding



The screenshot shows the Visual Studio Code editor with a Python file named `No6.py`. The code implements a binary search function `binse(kumpulan, target)` that returns the index of the target in a sorted list, or `-1` if not found. The list `a` is `[2, 4, 5, 10, 13, 18, 23, 29, 31, 51, 64]`. The function is called with `binse(a, 13)`.

```
1 def binse(kumpulan, target):
2     low = 0
3     high = len(kumpulan) - 1
4
5     while low <= high:
6         mid = (high + low) // 2
7         if kumpulan[mid] == target:
8             return mid
9         elif target < kumpulan[mid]:
10            high = mid - 1
11        else:
12            low = mid + 1
13    return -1
14
15 a = [2, 4, 5, 10, 13, 18, 23, 29, 31, 51, 64]
16 print(binse(a, 13))
```

Hasil

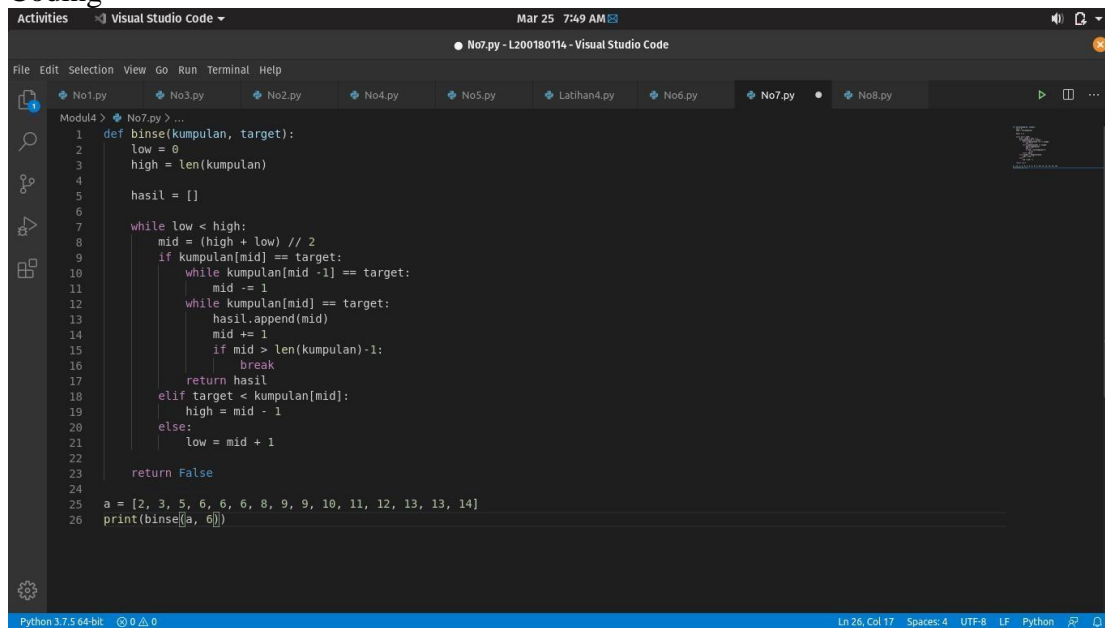


The screenshot shows the terminal output of the Python script. The command `python /home/kintosi/Documents/L200180114/Modul4/No6.py` was executed, and the output was `5`, which is the index of the value 13 in the list.

```
kintosi@pop-os:~/Documents/L200180114$ python /home/kintosi/Documents/L200180114/Modul4/No6.py
5
kintosi@pop-os:~/Documents/L200180114$
```


Soal Nomer 8

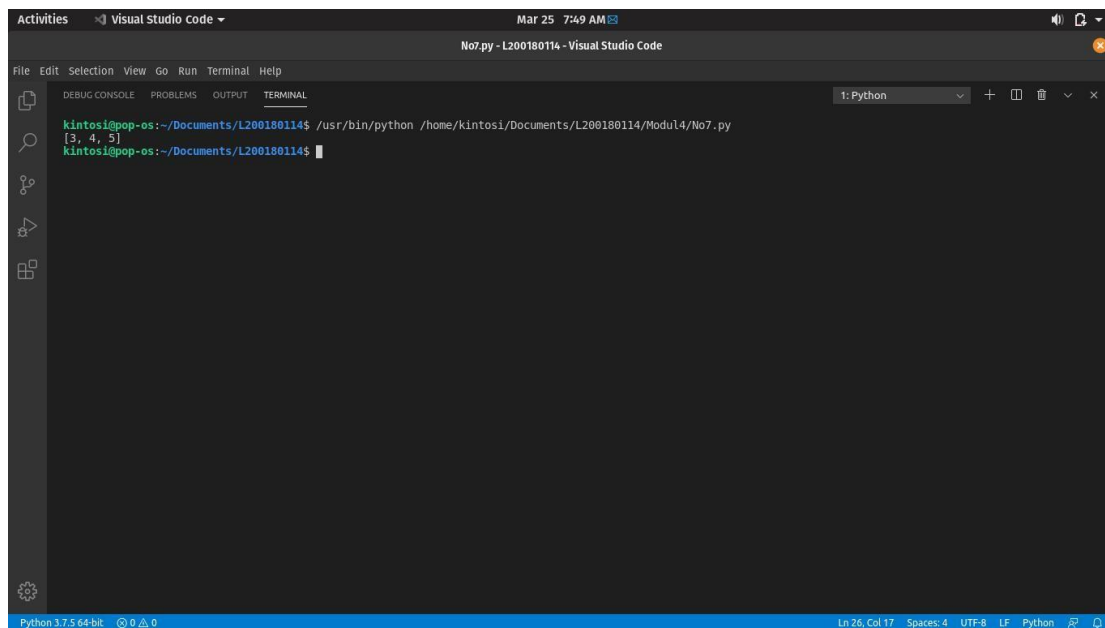
Coding



The screenshot shows the Visual Studio Code editor with a Python file named `No7.py`. The code implements a binary search function `binse(kumpulan, target)` that returns a list of indices where the target is found. The list `a` is defined as `[2, 3, 5, 6, 6, 6, 8, 9, 9, 10, 11, 12, 13, 13, 14]`, and the target is `6`. The status bar at the bottom indicates Python 3.7.5 64-bit, UTF-8 encoding, and line 26, column 17.

```
1 def binse(kumpulan, target):
2     low = 0
3     high = len(kumpulan)
4     hasil = []
5
6     while low < high:
7         mid = (high + low) // 2
8         if kumpulan[mid] == target:
9             while kumpulan[mid] == target:
10                 hasil.append(mid)
11                 mid += 1
12             while kumpulan[mid] == target:
13                 hasil.append(mid)
14                 mid += 1
15                 if mid > len(kumpulan)-1:
16                     break
17             return hasil
18         elif target < kumpulan[mid]:
19             high = mid - 1
20         else:
21             low = mid + 1
22
23     return False
24
25 a = [2, 3, 5, 6, 6, 6, 8, 9, 9, 10, 11, 12, 13, 13, 14]
26 print(binse(a, 6))
```

Hasil

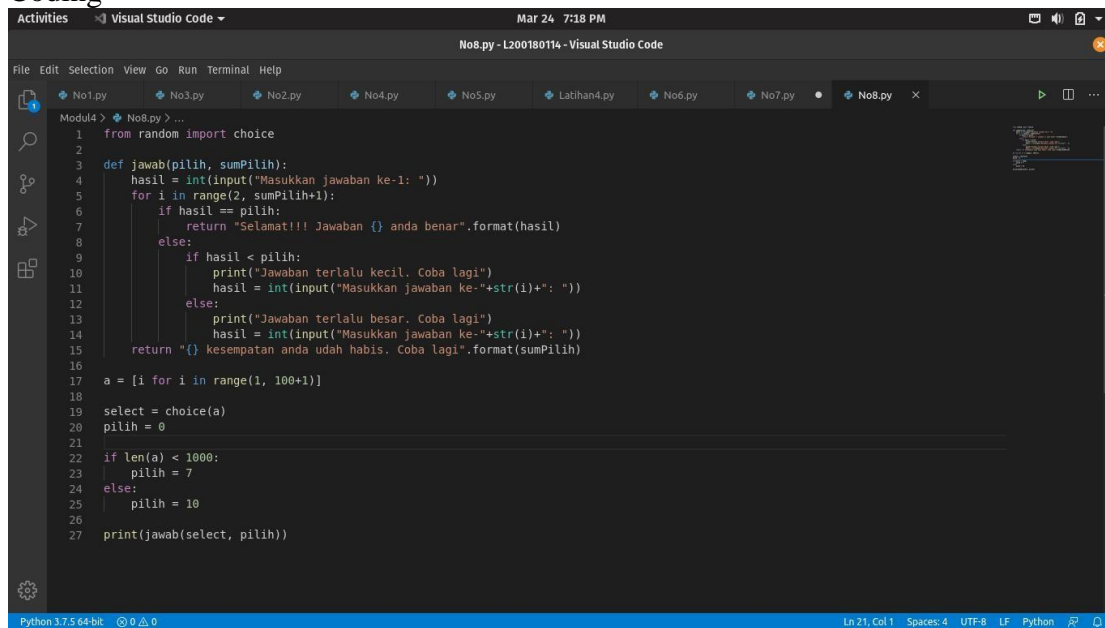


The screenshot shows the terminal output of the Python script. The command `python /home/kintosi/Documents/L200180114/Modul4/No7.py` was executed, resulting in the output `[3, 4, 5]`. The status bar at the bottom indicates Python 3.7.5 64-bit, UTF-8 encoding, and line 26, column 17.

```
kintosi@pop-os:~/Documents/L200180114$ /usr/bin/python /home/kintosi/Documents/L200180114/Modul4/No7.py
[3, 4, 5]
kintosi@pop-os:~/Documents/L200180114$
```

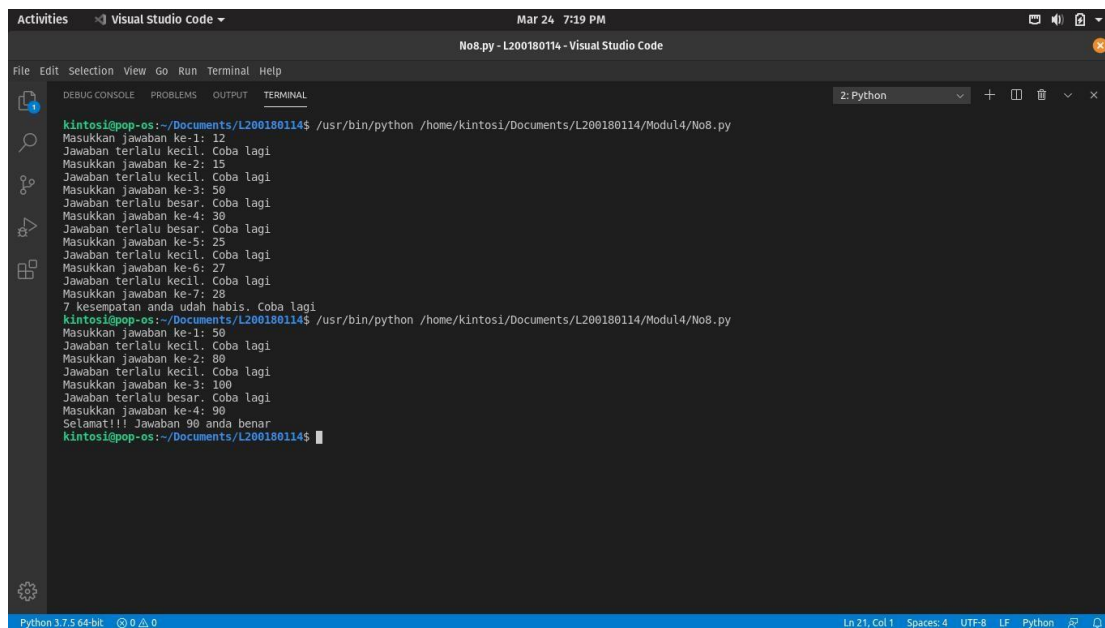
Soal Nomer 9

Coding



```
1 from random import choice
2
3 def jawab(pilih, sumPilih):
4     hasil = int(input("Masukkan jawaban ke-1: "))
5     for i in range(2, sumPilih+1):
6         if hasil == pilih:
7             return "Selamat!!! Jawaban {} anda benar".format(hasil)
8         else:
9             if hasil < pilih:
10                 print("Jawaban terlalu kecil. Coba lagi")
11                 hasil = int(input("Masukkan jawaban ke-"+str(i)+" : "))
12             else:
13                 print("Jawaban terlalu besar. Coba lagi")
14                 hasil = int(input("Masukkan jawaban ke-"+str(i)+" : "))
15     return "{} kesempatan anda udah habis. Coba lagi".format(sumPilih)
16
17 a = [i for i in range(1, 100+1)]
18
19 select = choice(a)
20 pilih = 0
21
22 if len(a) < 1000:
23     pilih = 7
24 else:
25     pilih = 10
26
27 print(jawab(select, pilih))
```

Hasil



```
kintosi@pop-os:~/Documents/L200180114$ /usr/bin/python /home/kintosi/Documents/L200180114/Modul4/No8.py
Masukkan jawaban ke-1: 12
Jawaban terlalu kecil. Coba lagi
Masukkan jawaban ke-2: 15
Jawaban terlalu kecil. Coba lagi
Masukkan jawaban ke-3: 50
Jawaban terlalu besar. Coba lagi
Masukkan jawaban ke-4: 30
Jawaban terlalu besar. Coba lagi
Masukkan jawaban ke-5: 25
Jawaban terlalu kecil. Coba lagi
Masukkan jawaban ke-6: 27
Jawaban terlalu kecil. Coba lagi
Masukkan jawaban ke-7: 28
7 kesempatan anda udah habis. Coba lagi
kintosi@pop-os:~/Documents/L200180114$ /usr/bin/python /home/kintosi/Documents/L200180114/Modul4/No8.py
Masukkan jawaban ke-1: 50
Jawaban terlalu kecil. Coba lagi
Masukkan jawaban ke-2: 80
Jawaban terlalu kecil. Coba lagi
Masukkan jawaban ke-3: 100
Jawaban terlalu besar. Coba lagi
Masukkan jawaban ke-4: 90
Selamat!!! Jawaban 90 anda benar
kintosi@pop-os:~/Documents/L200180114$
```