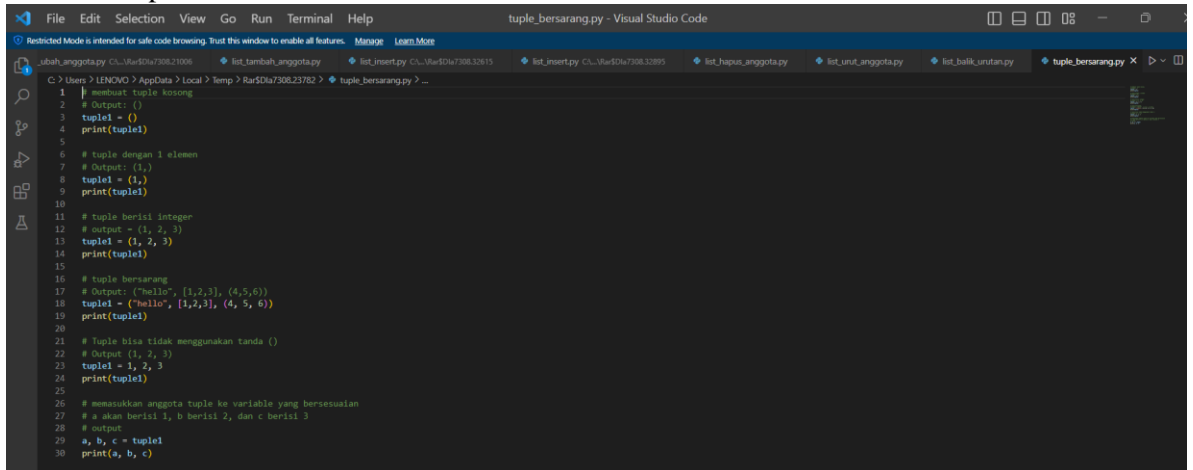


Nama : I Nengah Ariya Subawa

Nim : 211001067

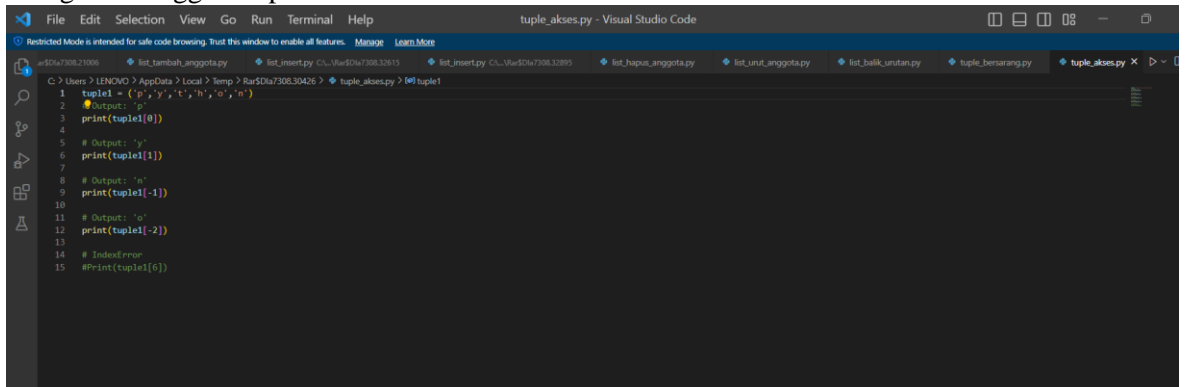
Kelas : Informatika D

## 1. Membuat tuple

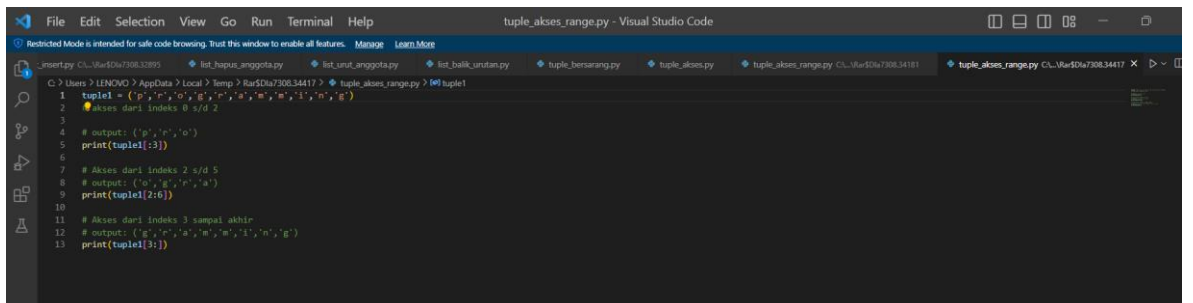


```
1 # membuat tuple kosong
2 # Output: ()
3 tuple1 = ()
4 print(tuple1)
5
6 # tuple dengan 1 elemen
7 # Output: (1,)
8 tuple1 = (1,)
9 print(tuple1)
10
11 # tuple berisi integer
12 # output = (1, 2, 3)
13 tuple1 = (1, 2, 3)
14 print(tuple1)
15
16 # tuple bersarang
17 # Output: ("hello", [1,2,3], (4,5,6))
18 tuple1 = ("hello", [1,2,3], (4, 5, 6))
19 print(tuple1)
20
21 # Tuple bisa tidak menggunakan tanda ()
22 # Output (1, 2, 3)
23 tuple1 = 1, 2, 3
24 print(tuple1)
25
26 # memasukkan anggota tuple ke variable yang bersesuaian
27 # a akan berisi 1, b berisi 2, dan c berisi 3
28 # output
29 a, b, c = tuple1
30 print(a, b, c)
```

## 2. Mengakses anggota tuple

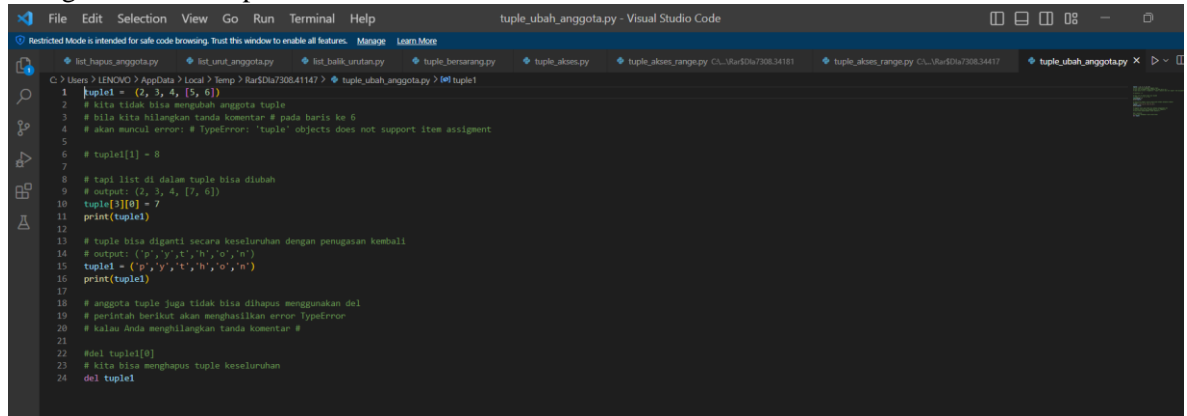


```
1 tuple1 = ('p','y','t','h','o','n')
2 # Output: 'p'
3 print(tuple1[0])
4
5 # Output: 'y'
6 print(tuple1[1])
7
8 # Output: 'n'
9 print(tuple1[-1])
10
11 # Output: 'o'
12 print(tuple1[-2])
13
14 # IndexError
15 #Print(tuple1[6])
```



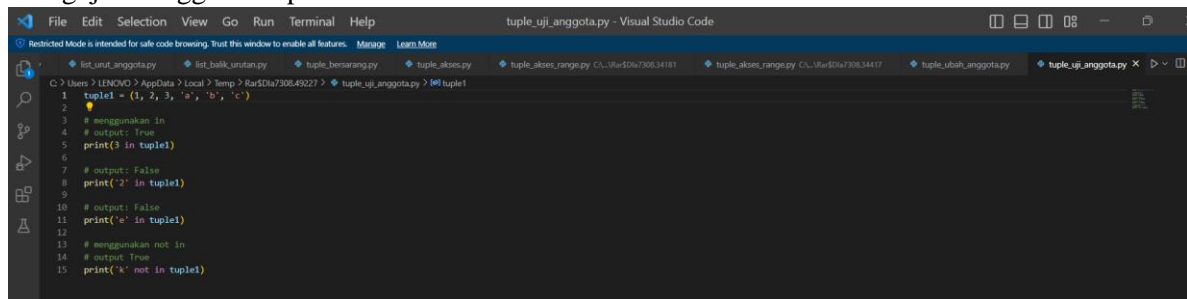
```
1 tuple1 = ('p','y','t','h','o','n','g','a','m','e','n','i','n','g')
2 # akses dari indeks 0 s/d 2
3
4 # output: ('p','y','o')
5 print(tuple1[:3])
6
7 # Akses dari indeks 2 s/d 5
8 # output: ('o','g','n','a')
9 print(tuple1[2:6])
10
11 # Akses dari indeks 3 sampai akhir
12 # output: ('n','e','m','e','n','i','n','g')
13 print(tuple1[3:])
```

### 3. Mengubah Akses tuple



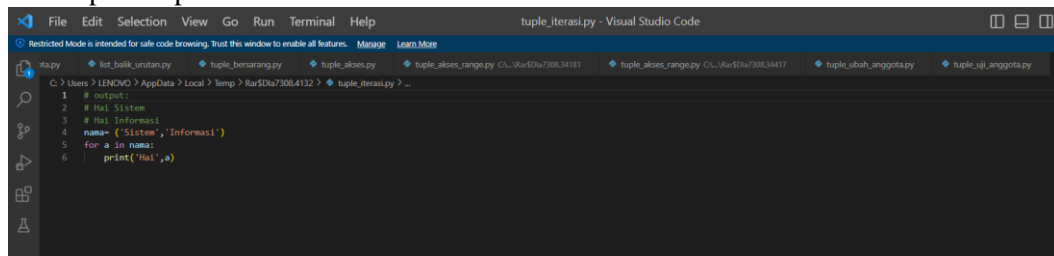
```
File Edit Selection View Go Run Terminal Help tuple_ubah_anggota.py - Visual Studio Code
Restricted Mode is intended for safe code browsing. Trust this window to enable all features. Manage Learn More
list_hapus_anggota.py list_ubah_anggota.py list_balik_unta.py tuple_bersarang.py tuple_akses.py tuple_akses_range.py tuple_ubah_anggota.py tuple_ubah_anggota.py
C:\Users> IENOV > AppData > Local > Temp > Rar$Dn730841147 > tuple_ubah_anggota.py > tuple1
1 tuple1 = (2, 3, 4, [5, 6])
2 # kita tidak bisa mengubah anggota tuple
3 # bila kita hilangkan tanda komentar # pada baris ke 6
4 # akan muncul error: 'tuple' objects does not support item assignment
5
6 tuple1[1] = 8
7
8 # tapi list di dalam tuple bisa diubah
9 # output: (2, 3, 4, [7, 6])
10 tuple[3][0] = 7
11 print(tuple1)
12
13 # tuple bisa diganti secara keseluruhan dengan pengisian kembali
14 # output: ('p','y','t','h','o','n')
15 tuple1 = ('p','y','t','h','o','n')
16 print(tuple1)
17
18 # anggota tuple juga tidak bisa dihapus menggunakan del
19 # perintah berikut akan menghasilkan error TypeError
20 # kalau Anda menghilangkan tanda komentar #
21
22 del tuple1[0]
23 # kita bisa menghapus tuple keseluruhan
24 del tuple1
```

### 4. Menguji Keanggotaan tuple



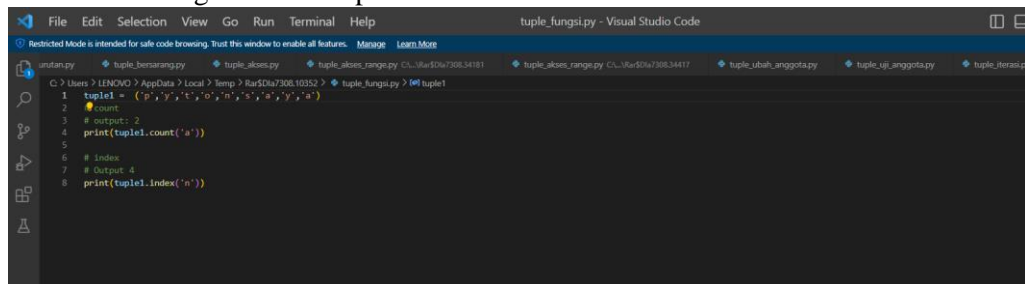
```
File Edit Selection View Go Run Terminal Help tuple_uji_anggota.py - Visual Studio Code
Restricted Mode is intended for safe code browsing. Trust this window to enable all features. Manage Learn More
list_ubah_anggota.py list_balik_unta.py tuple_bersarang.py tuple_akses.py tuple_akses_range.py tuple_ubah_anggota.py tuple_uji_anggota.py tuple_uji_anggota.py
C:\Users> IENOV > AppData > Local > Temp > Rar$Dn730849227 > tuple_uji_anggota.py > tuple1
1 tuple1 = (1, 2, 3, 'a', 'b', 'c')
2
3 # menggunakan in
4 # output: True
5 print(3 in tuple1)
6
7 # output: False
8 print('2' in tuple1)
9
10 # output: False
11 print('e' in tuple1)
12
13 # menggunakan not in
14 # output: True
15 print('k' not in tuple1)
```

### 5. Iterasi pada tuple



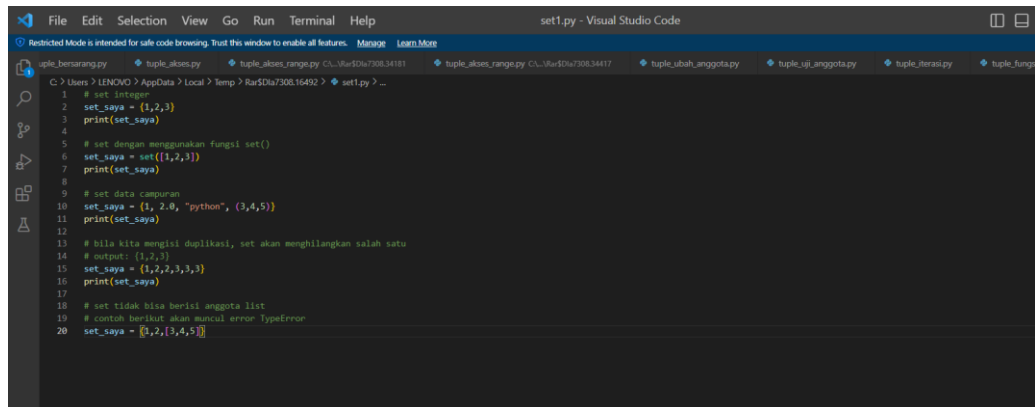
```
File Edit Selection View Go Run Terminal Help tuple_iterasi.py - Visual Studio Code
Restricted Mode is intended for safe code browsing. Trust this window to enable all features. Manage Learn More
list_hapus_anggota.py list_ubah_anggota.py list_balik_unta.py tuple_bersarang.py tuple_akses.py tuple_akses_range.py tuple_ubah_anggota.py tuple_uji_anggota.py
C:\Users> IENOV > AppData > Local > Temp > Rar$Dn73084132 > tuple_iterasi.py > ...
1 # output:
2 # Hal Sistem
3 # Hal Informasi
4 nama= ('Sistem','Informasi')
5 for a in nama:
6     print('Hal',a)
```

### 6. Metode dan fungsi bawaan tuple



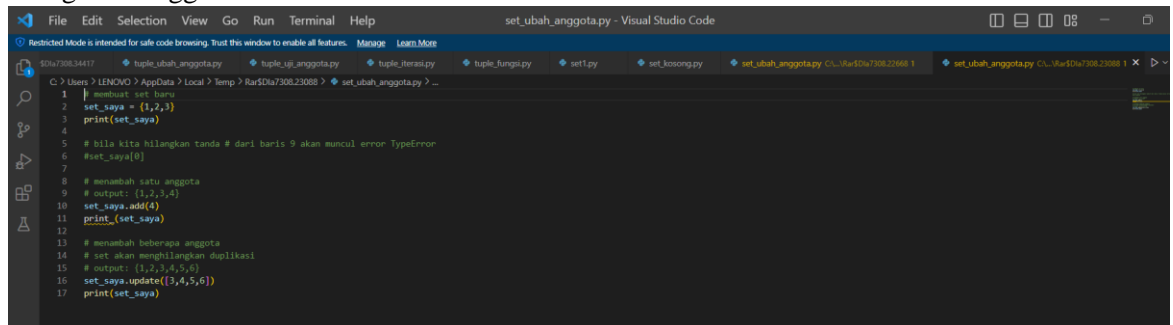
```
File Edit Selection View Go Run Terminal Help tuple_fungsi.py - Visual Studio Code
Restricted Mode is intended for safe code browsing. Trust this window to enable all features. Manage Learn More
list_hapus_anggota.py list_ubah_anggota.py list_balik_unta.py tuple_bersarang.py tuple_akses.py tuple_akses_range.py tuple_ubah_anggota.py tuple_uji_anggota.py tuple_iterasi.py
C:\Users> IENOV > AppData > Local > Temp > Rar$Dn730810352 > tuple_fungsi.py > tuple1
1 tuple1 = ('p','y','t','h','o','n','s','a','y','a')
2
3 # count
4 # output: 2
5 print(tuple1.count('a'))
6
7 # Index
8 # Output 4
9 print(tuple1.index('n'))
```

## 7. Membuat set



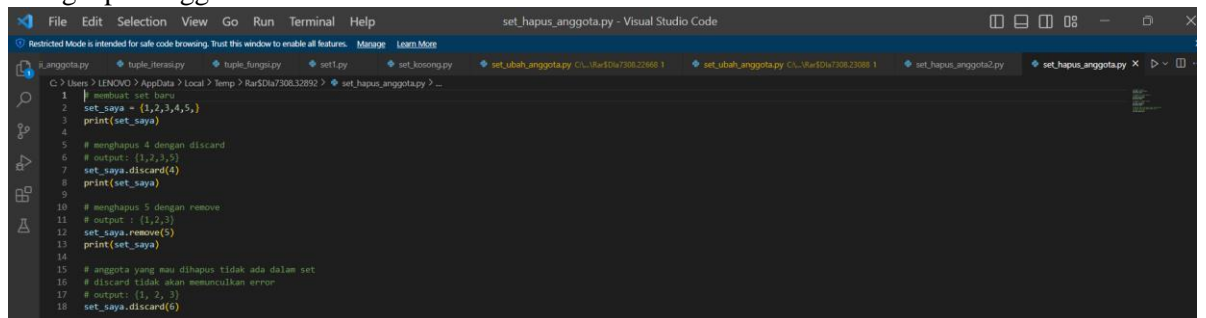
```
1 # set integer
2 set_saya = [1,2,3]
3 print(set_saya)
4
5 # set dengan menggunakan fungsi set()
6 set_saya = set([1,2,3])
7 print(set_saya)
8
9 # set data campuran
10 set_saya = {1, 2.0, "python", (3,4,5)}
11 print(set_saya)
12
13 # bila kita mengisi duplikasi, set akan menghilangkan salah satu
14 # output: {1,2,3}
15 set_saya = {1,2,2,3,3,3}
16 print(set_saya)
17
18 # set tidak bisa berisi anggota list
19 # contoh berikut akan muncul error TypeError
20 set_saya = [1,2,{3,4,5,6}]
```

## 8. Mengubah anggota set



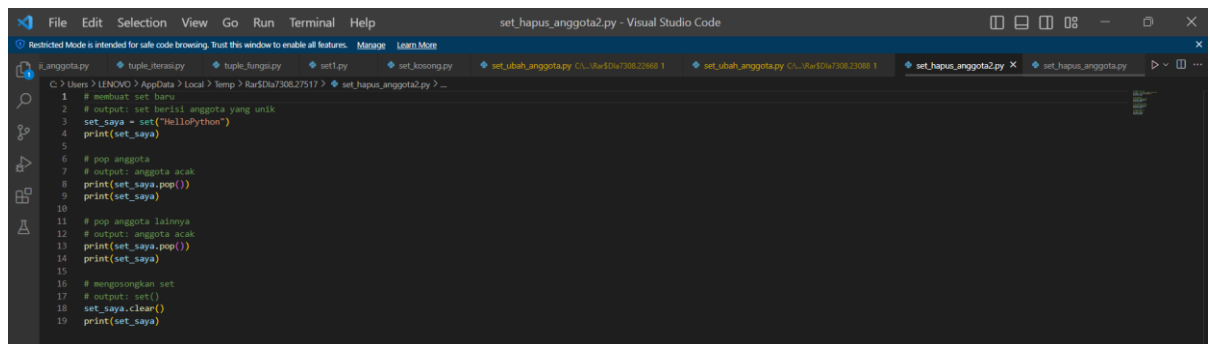
```
1 # membuat set baru
2 set_saya = {1,2,3}
3 print(set_saya)
4
5 # bila kita hilangkan tanda # dari baris 9 akan muncul error TypeError
6 #set_saya[0]
7
8 # menambah satu anggota
9 # output: {1,2,3,4}
10 set_saya.add(4)
11 print(set_saya)
12
13 # menambah beberapa anggota
14 # set akan menghilangkan duplikasi
15 # output: {1,2,3,4,5,6}
16 set_saya.update([3,4,5,6])
17 print(set_saya)
```

## 9. Menghapus anggota set



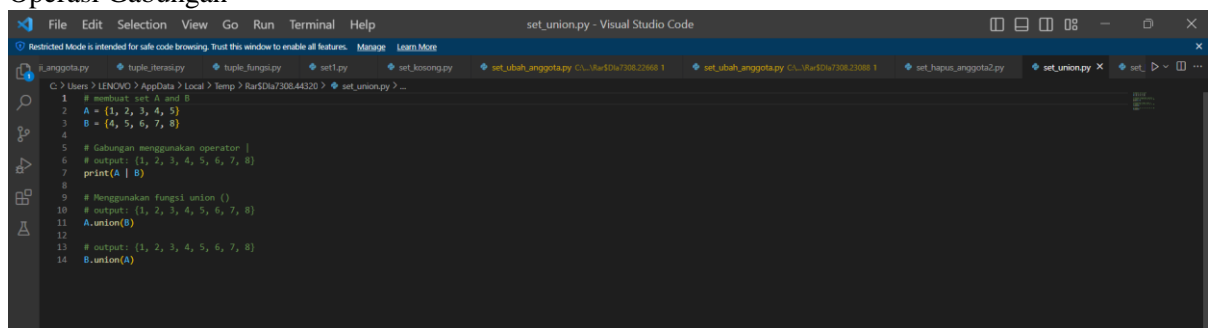
```
1 # membuat set baru
2 set_saya = {1,2,3,4,5}
3 print(set_saya)
4
5 # menghapus 4 dengan discard
6 # output: {1,2,3,5}
7 set_saya.discard(4)
8 print(set_saya)
9
10 # menghapus 5 dengan remove
11 # output: {1,2,3}
12 set_saya.remove(5)
13 print(set_saya)
14
15 # anggota yang mau dihapus tidak ada dalam set
16 # discard tidak akan memunculkan error
17 # output: {1, 2, 3}
18 set_saya.discard(6)
```

10.



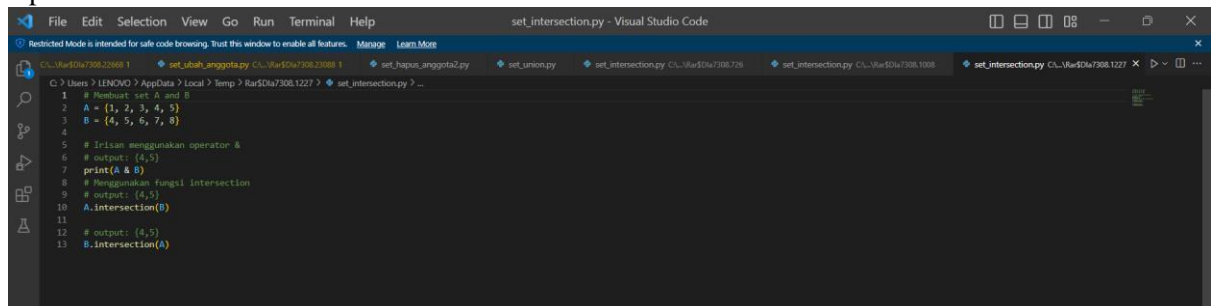
```
1 # membuat set baru
2 # output: set berisi anggota yang unik
3 set_saya = set("HelloPython")
4 print(set_saya)
5
6 # pop anggota
7 # output: anggota acak
8 print(set_saya.pop())
9 print(set_saya)
10
11 # pop anggota lainnya
12 # output: anggota acak
13 print(set_saya.pop())
14 print(set_saya)
15
16 # mengosongkan set
17 # output: set()
18 set_saya.clear()
19 print(set_saya)
```

11. Operasi Gabungan



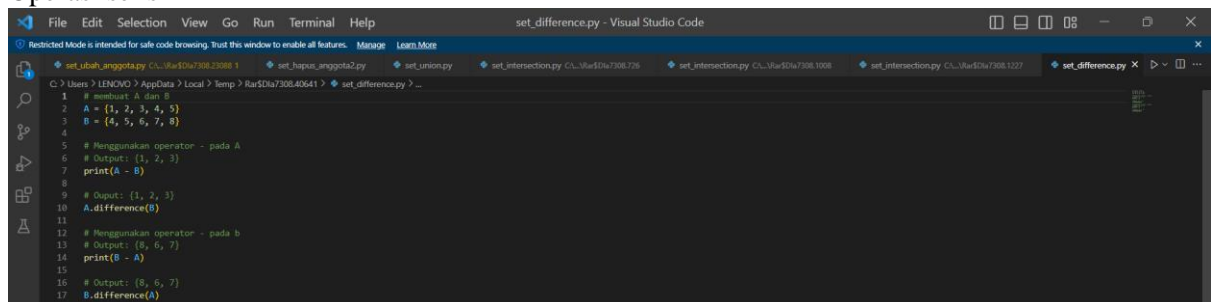
```
1 # membuat set A and B
2 A = {1, 2, 3, 4, 5}
3 B = {4, 5, 6, 7, 8}
4
5 # Gabungan menggunakan operator |
6 # output: {1, 2, 3, 4, 5, 6, 7, 8}
7 print(A | B)
8
9 # Menggunakan fungsi union ()
10 # output: {1, 2, 3, 4, 5, 6, 7, 8}
11 A.union(B)
12
13 # output: {1, 2, 3, 4, 5, 6, 7, 8}
14 B.union(A)
```

12. Operasi irisan



```
1 # membuat set A and B
2 A = {1, 2, 3, 4, 5}
3 B = {4, 5, 6, 7, 8}
4
5 # Irisan menggunakan operator &
6 # output: {4,5}
7 print(A & B)
8
9 # Menggunakan fungsi intersection
10 # output: {4,5}
11 A.intersection(B)
12
13 # output: {4,5}
14 B.intersection(A)
```

13. Operasi selisih



```
1 # membuat A dan B
2 A = {1, 2, 3, 4, 5}
3 B = {4, 5, 6, 7, 8}
4
5 # Menggunakan operator - pada A
6 # Output: {1, 2, 3}
7 print(A - B)
8
9 # Output: {1, 2, 3}
10 A.difference(B)
11
12 # Menggunakan operator - pada b
13 # Output: {6, 7, 8}
14 print(B - A)
15
16 # Output: {6, 7, 8}
17 B.difference(A)
```

## 14. Operasi Komplemen

```
File Edit Selection View Go Run Terminal Help
set_symmetric_difference.py - Visual Studio Code

Restricted Mode is intended for safe code browsing. Trust this window to enable all features. Manage Learn More

C:\Users\LENOVO> AppData\Local\Temp\Rar$Dn7308.23763 > set_symmetric_difference.py > ...
1 # membuat A dan B
2 A = {1, 2, 3, 4, 5}
3 B = {4, 5, 6, 7, 8}
4
5 # Menggunakan operator ^ pada A
6 # Output: {1, 2, 3, 6, 7, 8}
7 print(A ^ B)
8
9 # Output: {1, 2, 3, 6, 7, 8}
10 A.symmetric_difference(B)
11
12 # Menggunakan operator ^ pada B
13 # Output: {1, 2, 3, 6, 7, 8}
14 print(B ^ A)
15
16 # Output: {1, 2, 3, 6, 7, 8}
17 B.symmetric_difference(A)
```

## 15. Membuat dictionary

```
File Edit Selection View Go Run Terminal Help
dictionary1.py - Visual Studio Code

Restricted Mode is intended for safe code browsing. Trust this window to enable all features. Manage Learn More

C:\Users\LENOVO> AppData\Local\Temp\Rar$Dn7308.30427 > dictionary1.py > ...
1 # Membuat dictionary kosong
2 dict1 = {}
3 print(dict1)
4
5 # dictionary dengan kunci integer
6 dict1 = {1: 'sepatu', 2: 'tas'}
7 print(dict1)
8
9 # dictionary dengan kunci campuran
10 dict1 = {'warna': 'merah', 1: [2,3,5]}
11 print(dict1)
12
13 # membuat dictionary menggunakan fungsi dict()
14 dict1 = dict([('1', 'sepatu'), ('2', 'bola')])
15 print(dict1)
16
17 dict1 = dict(m=8, n=9, o=10)
18 print(dict1)
```

## 16. Mengakses anggota dictionary

```
File Edit Selection View Go Run Terminal Help
dictionary_akses_anggota.py - Visual Studio Code

Restricted Mode is intended for safe code browsing. Trust this window to enable all features. Manage Learn More

C:\Users\LENOVO> AppData\Local\Temp\Rar$Dn7308.35733 > dictionary_akses_anggota.py > ...
1 dict_saya = {'nama': 'Budi', 'usia': 27}
2
3 # output: Budi
4 print(dict_saya['nama'])
5
6 # output: 27
7 print(dict_saya.get('usia'))
8
9 # output: None
10 print(dict_saya.get('alamat'))
11
12 # Mengakses kunci yang tidak tersedia menyebabkan KeyError
13 dict_saya['alamat']
```

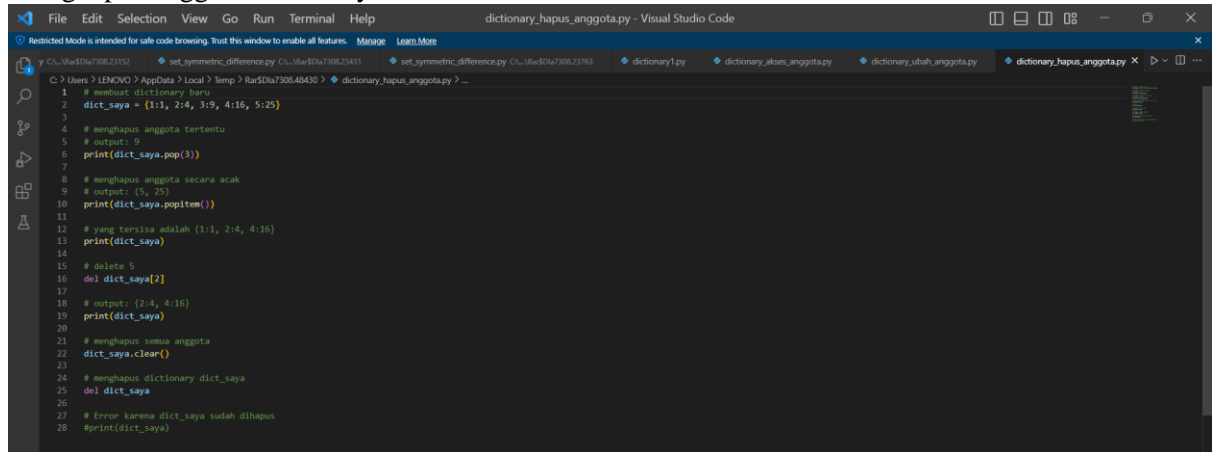
## 17. Mengubah anggota dictionary

```
File Edit Selection View Go Run Terminal Help
dictionary_ubah_anggota.py - Visual Studio Code

Restricted Mode is intended for safe code browsing. Trust this window to enable all features. Manage Learn More

C:\Users\LENOVO> AppData\Local\Temp\Rar$Dn7308.42410 > dictionary_ubah_anggota.py > ...
1 dict_saya = {'nama': 'Ikshan', 'usia': 35}
2
3 # mengupdate nilai
4 dict_saya['usia'] = 36
5 # Output: {'nama': 'Ikshan', 'usia': 36}
6 print(dict_saya)
7
8 # menambah anggota
9 dict_saya['alamat'] = 'Tanjungpinang'
10 # output: {'alamat': 'Tanjungpinang', 'nama': 'Ikshan'}
11 print(dict_saya)
```

## 18. Menghapus anggota dictionary



The screenshot shows a Visual Studio Code window with a Python file named `dictionary_hapus_anggota.py`. The code demonstrates various methods to delete members from a dictionary:

```
1 # membuat dictionary baru
2 dict_saya = {'1':1, '2':4, '3':9, '4':16, '5':25}
3
4 # menghapus anggota tertentu
5 # output: 9
6 print(dict_saya.pop('3'))
7
8 # menghapus anggota secara acak
9 # output: ('5', 25)
10 print(dict_saya.popitem())
11
12 # yang tersisa adalah {'1':1, '2':4, '4':16}
13 print(dict_saya)
14
15 # delete 5
16 del dict_saya[2]
17
18 # output: {'2':4, '4':16}
19 print(dict_saya)
20
21 # menghapus semua anggota
22 dict_saya.clear()
23
24 # menghapus dictionary dict_saya
25 del dict_saya
26
27 # Error karena dict_saya sudah dihapus
28 #print(dict_saya)
```