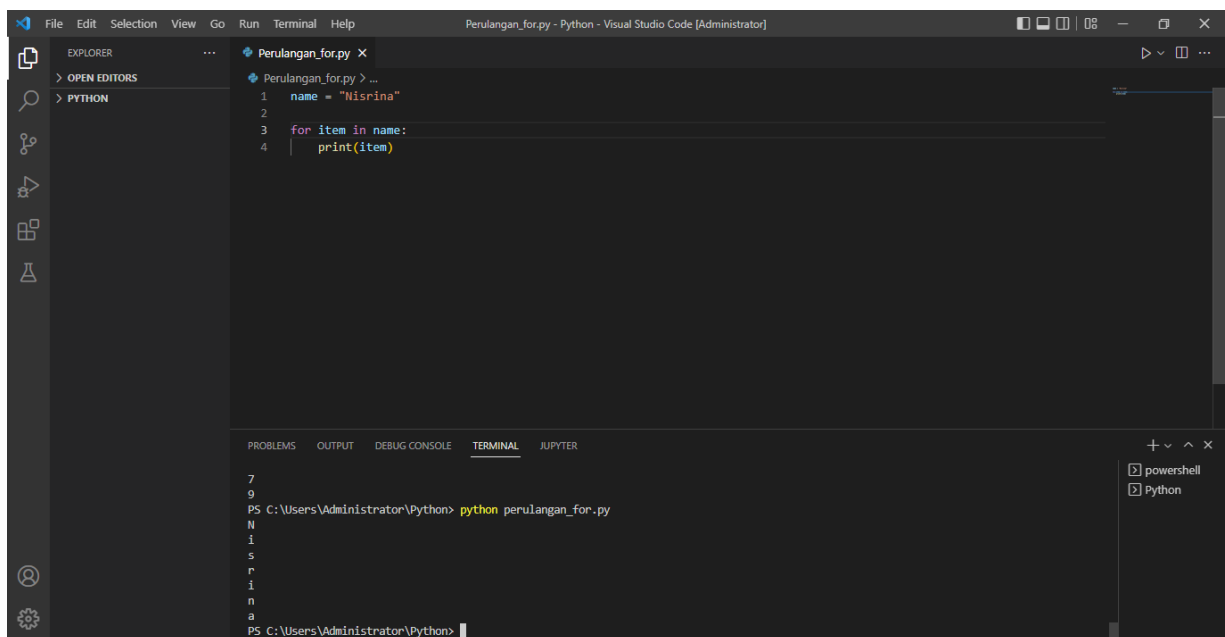


NAMA : NISRINA NISYAH
NIM : 211001010
KELAS : D / KECERDASAN BUATAN

1. Perulangan For

- Perulangan for pada python adalah perintah yang digunakan untuk melakukan iterasi dari sebuah nilai sequence atau data koleksi pada python yang sangat berkaitan dengan data sequence atau data kolektif.



The screenshot displays the Visual Studio Code interface. The Explorer sidebar on the left shows the file structure with 'Perulangan_for.py' selected. The main editor window shows the following Python code:

```
1 name = "Nisrina"  
2  
3 for item in name:  
4     print(item)
```

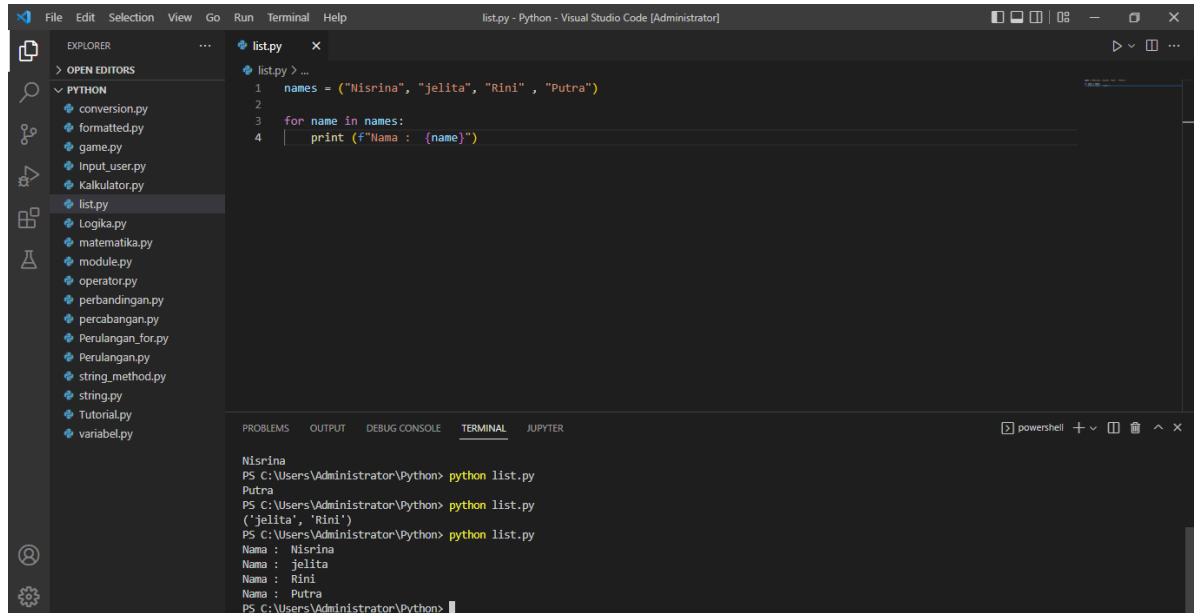
The bottom panel shows the TERMINAL output, which displays the characters of the string 'Nisrina' on separate lines:

```
7  
9  
PS C:\Users\Administrator\Python> python perulangan_for.py  
N  
i  
s  
r  
i  
n  
a  
PS C:\Users\Administrator\Python>
```

On the right side of the terminal panel, there are icons for 'powershell' and 'Python'.

2. List

- List adalah tipe data terpenting dalam Bahasa python. Dalam Bahasa python, list ditulis sebagai list nilai yang dipisahkan koma didalam tanda kurung siku. Keuntungan terpenting dari list adalah elemen di dalam list tidak wajib memiliki tipe data yang sama Bersama dengan pengindeksan negative.

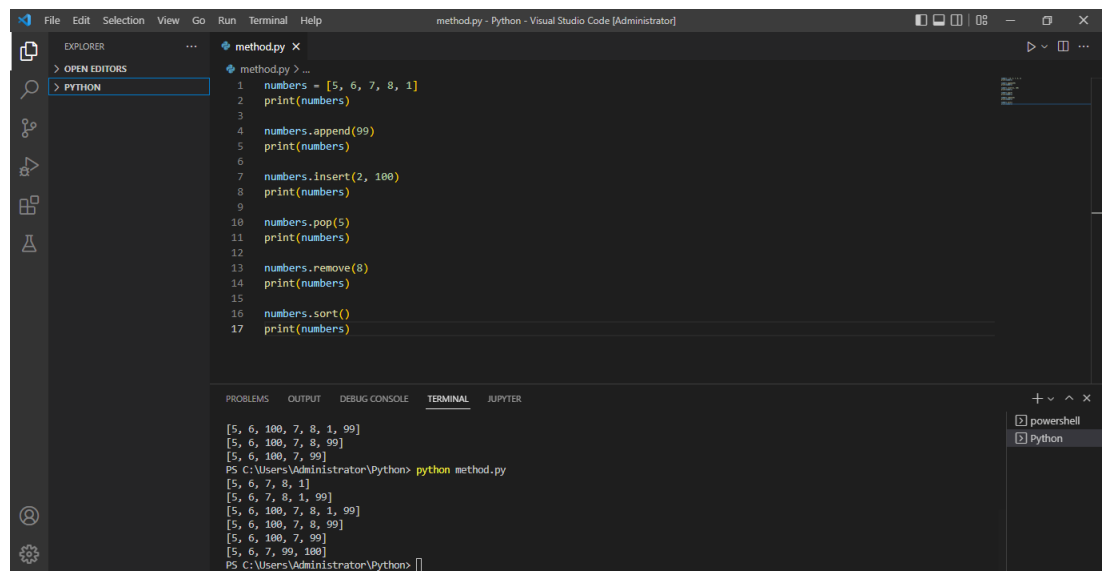


The screenshot shows the Visual Studio Code interface with a file explorer on the left containing various Python files. The main editor displays the content of `list.py`:

```
list.py > ...
1  names = ("Nisrina", "jelita", "Rini", "Putra")
2
3  for name in names:
4      print (f>Nama : {name})
```

The terminal at the bottom shows the output of running `python list.py` three times, displaying the names Nisrina, Putra, and Rini.

3. List Method

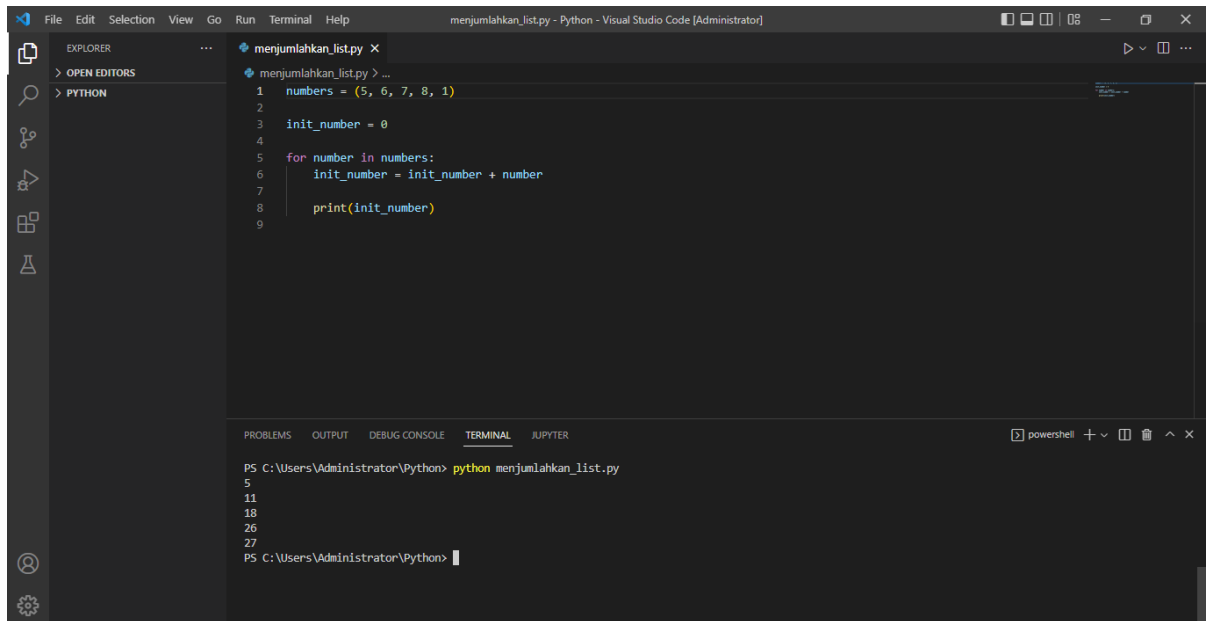


The screenshot shows the Visual Studio Code interface with a file explorer on the left. The main editor displays the content of `method.py`:

```
method.py > ...
1  numbers = [5, 6, 7, 8, 1]
2  print(numbers)
3
4  numbers.append(99)
5  print(numbers)
6
7  numbers.insert(2, 100)
8  print(numbers)
9
10 numbers.pop(5)
11 print(numbers)
12
13 numbers.remove(8)
14 print(numbers)
15
16 numbers.sort()
17 print(numbers)
```

The terminal at the bottom shows the output of running `python method.py`, displaying the list `[5, 6, 100, 7, 8, 1, 99]` after each operation.

4. Menjumlahkan List



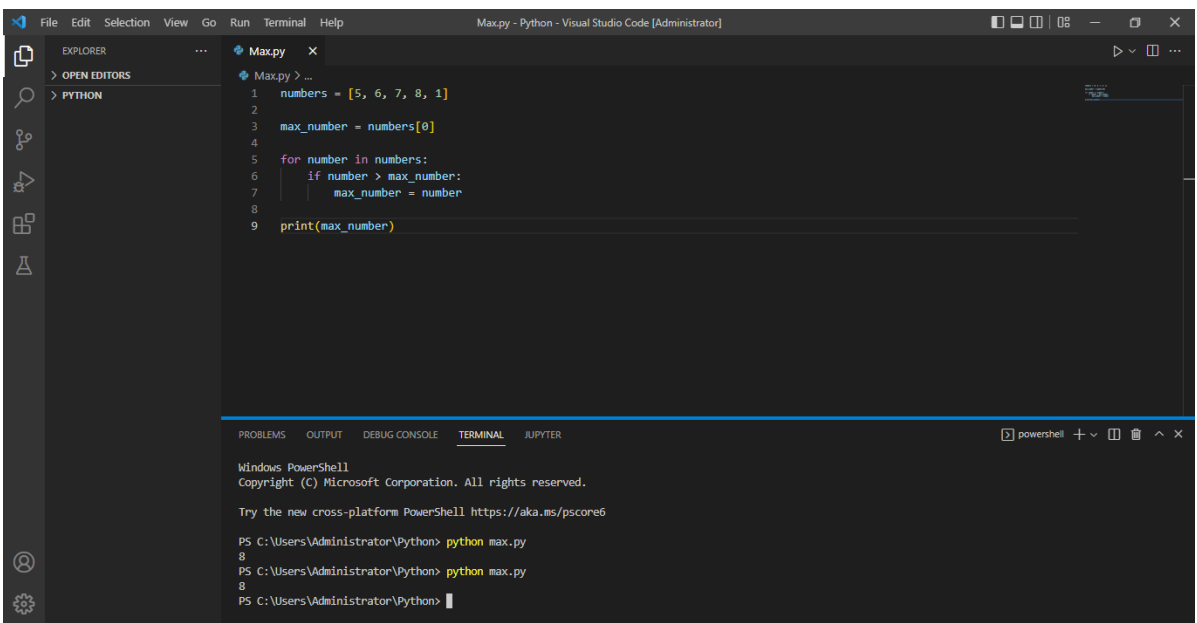
The screenshot shows the Visual Studio Code interface with a file named `menjumlahkan_list.py` open. The code in the editor is as follows:

```
1 numbers = (5, 6, 7, 8, 1)
2
3 init_number = 0
4
5 for number in numbers:
6     init_number = init_number + number
7
8 print(init_number)
9
```

The terminal at the bottom shows the command `python menjumlahkan_list.py` being executed, with the output `11` displayed.

5. Mencari Angka Max

- yaitu menerima parameter dalam jumlah yang bebas dan akan mengembalikan suatu angka terbesar dari yang diberikan.



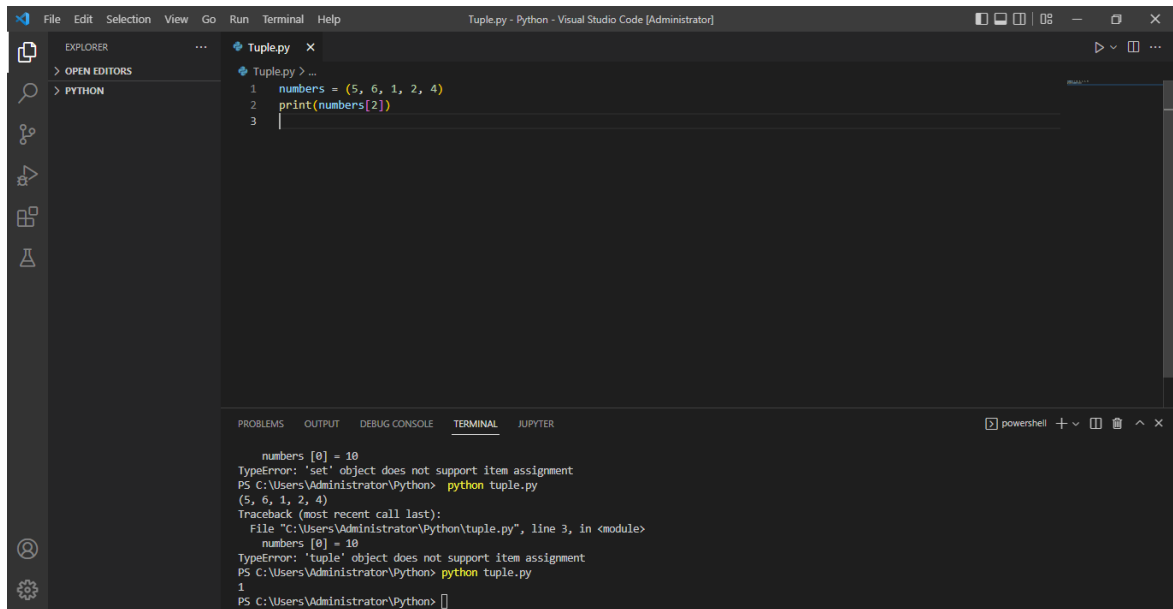
The screenshot shows the Visual Studio Code interface with a file named `Max.py` open. The code in the editor is as follows:

```
1 numbers = [5, 6, 7, 8, 1]
2
3 max_number = numbers[0]
4
5 for number in numbers:
6     if number > max_number:
7         max_number = number
8
9 print(max_number)
```

The terminal at the bottom shows the command `python max.py` being executed, with the output `8` displayed.

6. Tuple

- Adalah Struktur data yang digunakan untuk menyimpan sekumpulan data. Tuple bersifat *immutable*, artinya isi tuple tidak bisa kita ubah dan hapus. Namun, dapat kita isi dengan berbagai macam nilai dan objek. Contohnya seperti dibawah.



```
File Edit Selection View Go Run Terminal Help
Tuple.py - Python - Visual Studio Code [Administrator]

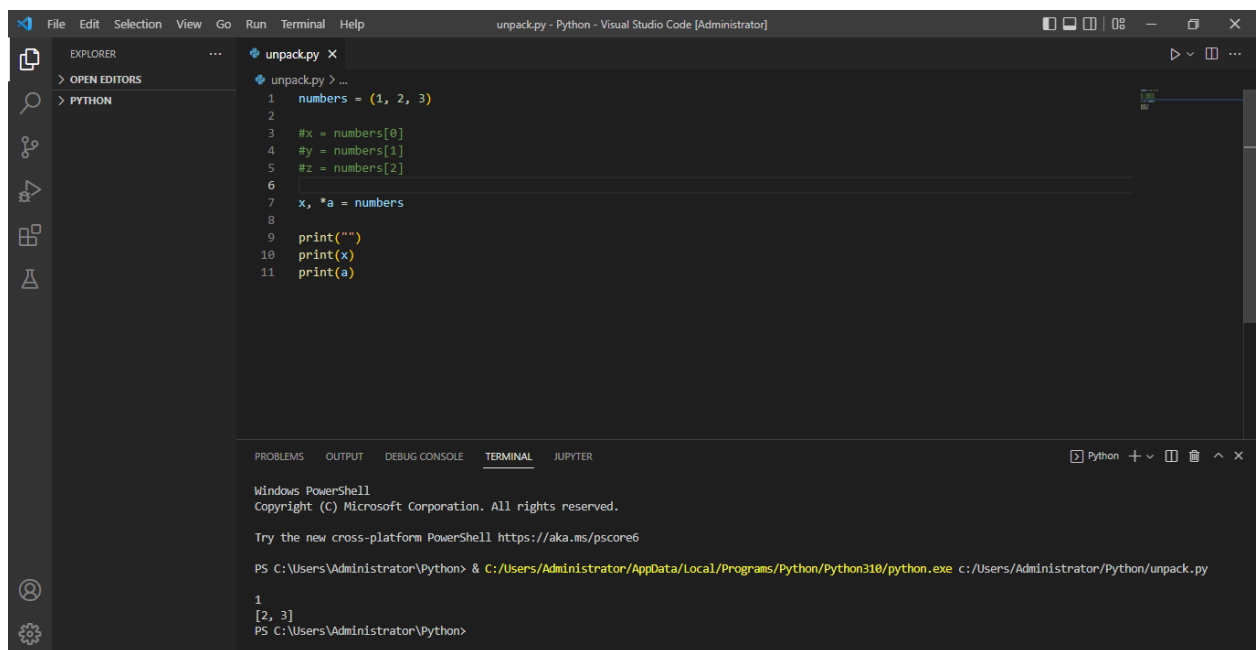
EXPLORER
> OPEN EDITORS
> PYTHON

Tuple.py
1 numbers = (5, 6, 1, 2, 4)
2 print(numbers[2])
3

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL JUPYTER
numbers [0] = 10
TypeError: 'set' object does not support item assignment
PS C:\Users\Administrator\Python> python tuple.py
(5, 6, 1, 2, 4)
Traceback (most recent call last):
  File "C:\Users\Administrator\Python\tuple.py", line 3, in <module>
    numbers [0] = 10
TypeError: 'tuple' object does not support item assignment
PS C:\Users\Administrator\Python> python tuple.py
1
PS C:\Users\Administrator\Python>
```

7. Unpack

- Yaitu mengekstrak nilai dari tuple yang sudah kita buat ke dalam variabel – variabel tunggal yang kita tentukan secara berurutan.



```
File Edit Selection View Go Run Terminal Help
unpack.py - Python - Visual Studio Code [Administrator]

EXPLORER
> OPEN EDITORS
> PYTHON

unpack.py
1 numbers = (1, 2, 3)
2
3 #x = numbers[0]
4 #y = numbers[1]
5 #z = numbers[2]
6
7 x, *a = numbers
8
9 print("")
10 print(x)
11 print(a)

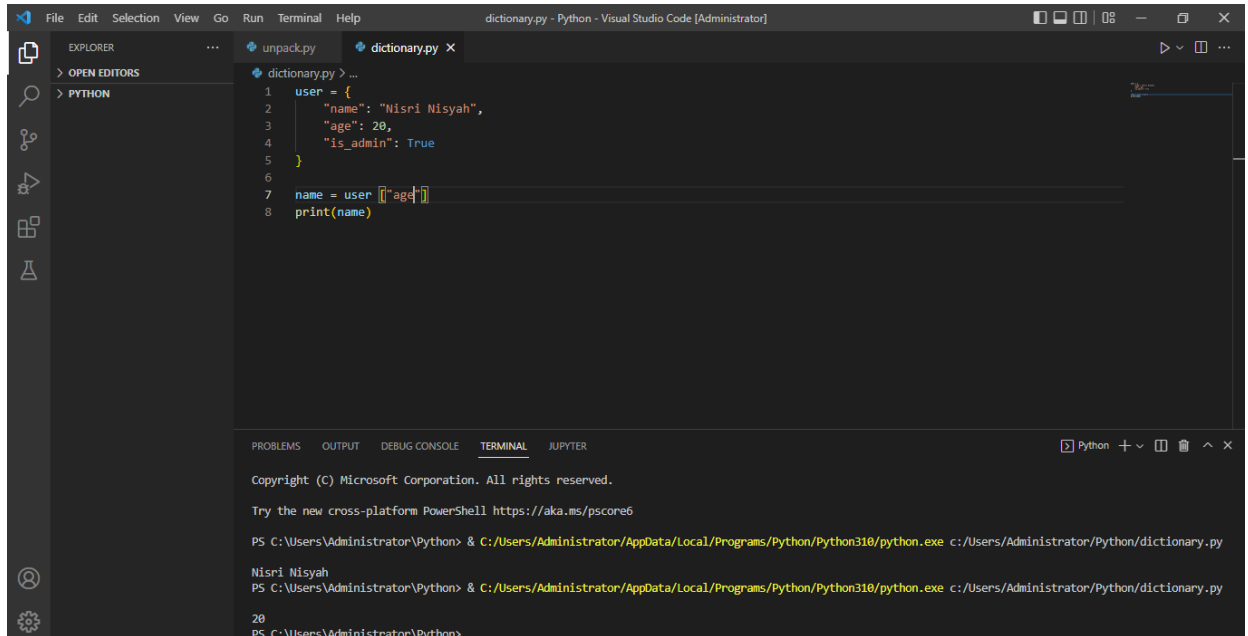
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL JUPYTER
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\Administrator\Python> & C:\Users\Administrator\AppData\Local\Programs\Python\Python310\python.exe c:/Users/Administrator/Python/unpack.py
1
[2, 3]
PS C:\Users\Administrator\Python>
```

8. Dictionary

- Tipe data pada python yang berfungsi untuk menyimpan kumpulan data / nilai dengan pendekatan “Key-value”.



The screenshot shows the Visual Studio Code interface with a Python file named `dictionary.py` open. The code defines a dictionary `user` with keys `"name"`, `"age"`, and `"is_admin"`, and then prints the value of `user["age"]`. The terminal at the bottom shows the command to run the script, which outputs `Nisri Nisyah` and `28`.

```
1 user = {  
2     "name": "Nisri Nisyah",  
3     "age": 28,  
4     "is_admin": True  
5 }  
6  
7 name = user["age"]  
8 print(name)
```

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Try the new cross-platform PowerShell <https://aka.ms/pscore6>
PS C:\Users\Administrator\Python> & C:/Users/Administrator/AppData/Local/Programs/Python/Python310/python.exe c:/Users/Administrator/Python/dictionary.py
Nisri Nisyah
PS C:\Users\Administrator\Python> & C:/Users/Administrator/AppData/Local/Programs/Python/Python310/python.exe c:/Users/Administrator/Python/dictionary.py
28
PS C:\Users\Administrator\Python>