PYTHON

FILE

Tien-Lam Pham

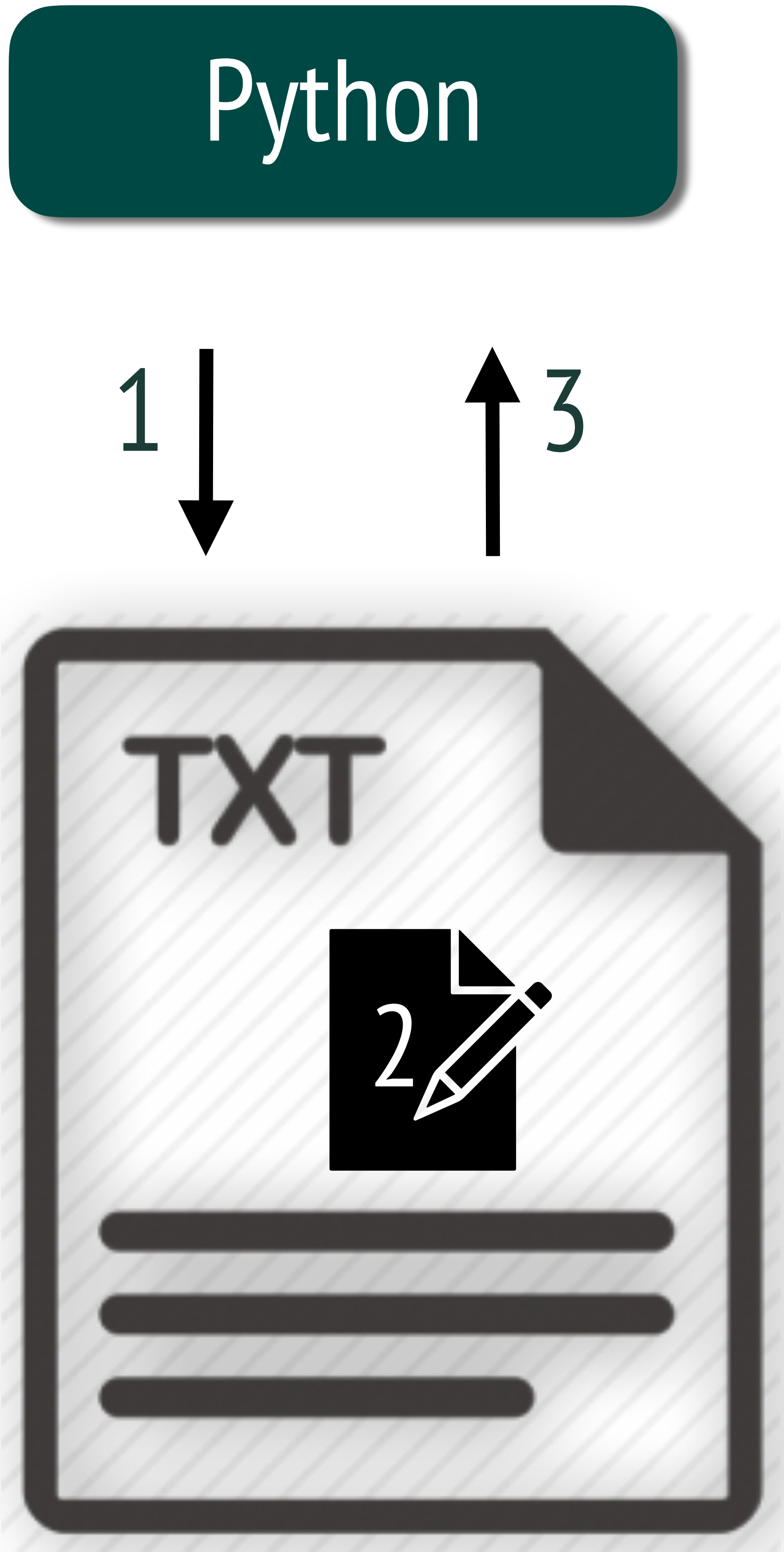
Anh-Tuan Nguyen

Phenikaa School of Computing

OUTLINE

- procedure
- working with file by pandas

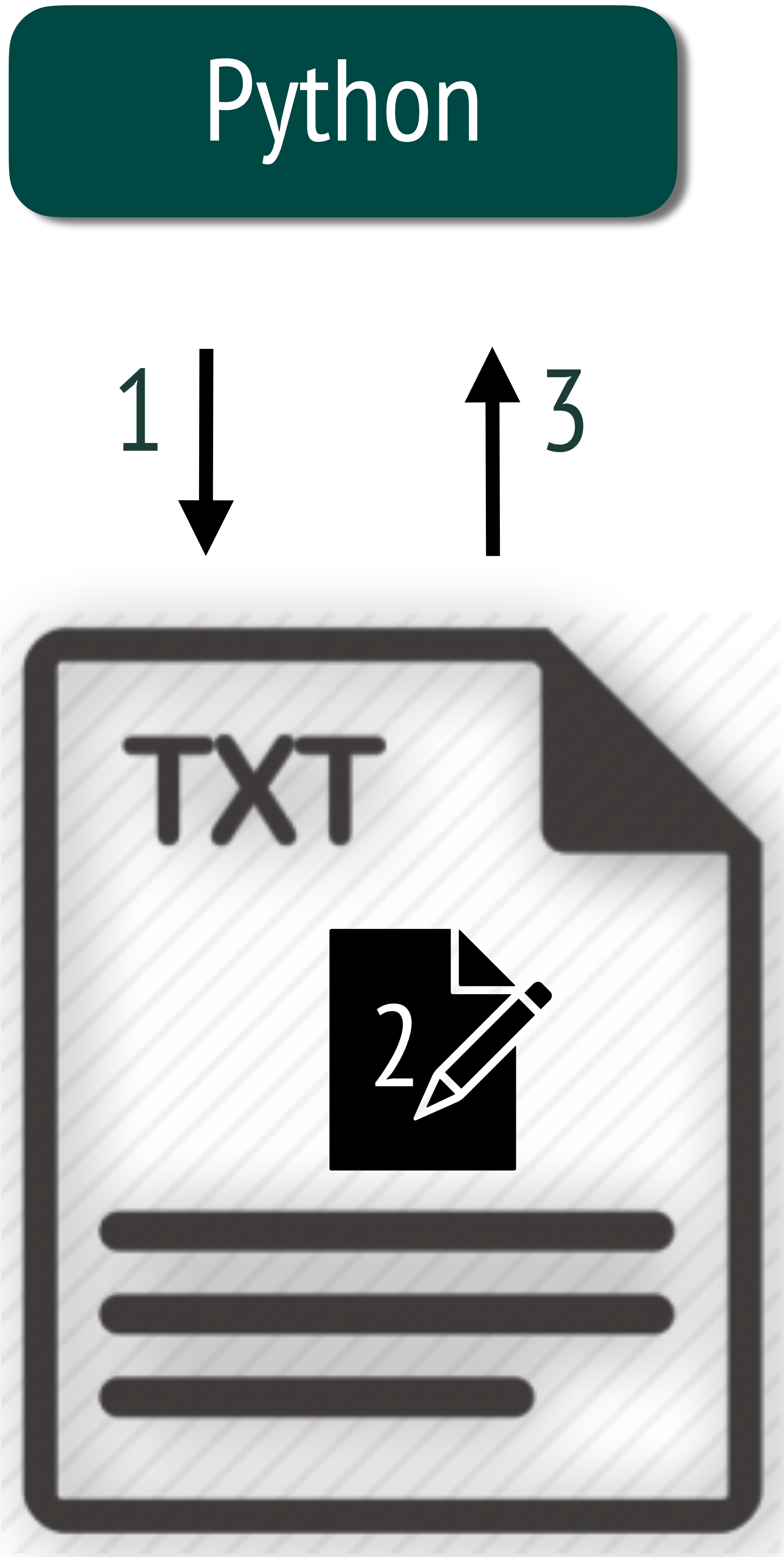
TYPICAL PROCEDURE



- ➡ 1. Connect to file
- ➡ 2. Read from/ write to file
- ➡ 3. Disconnect to file

READ FROM A FILE

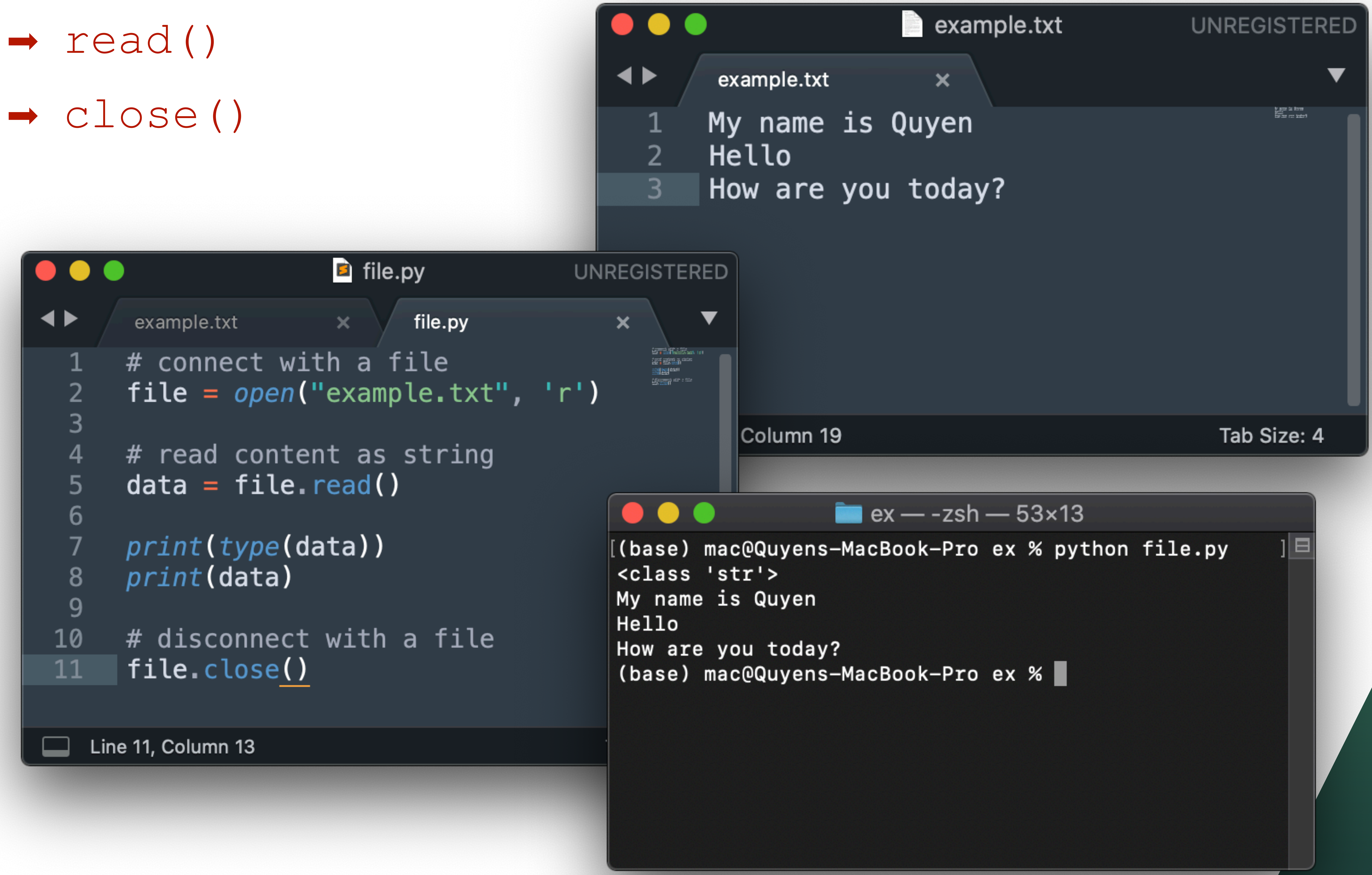
- file already exists



➡ open(file_path, ‘r’)

➡ read()

➡ close()



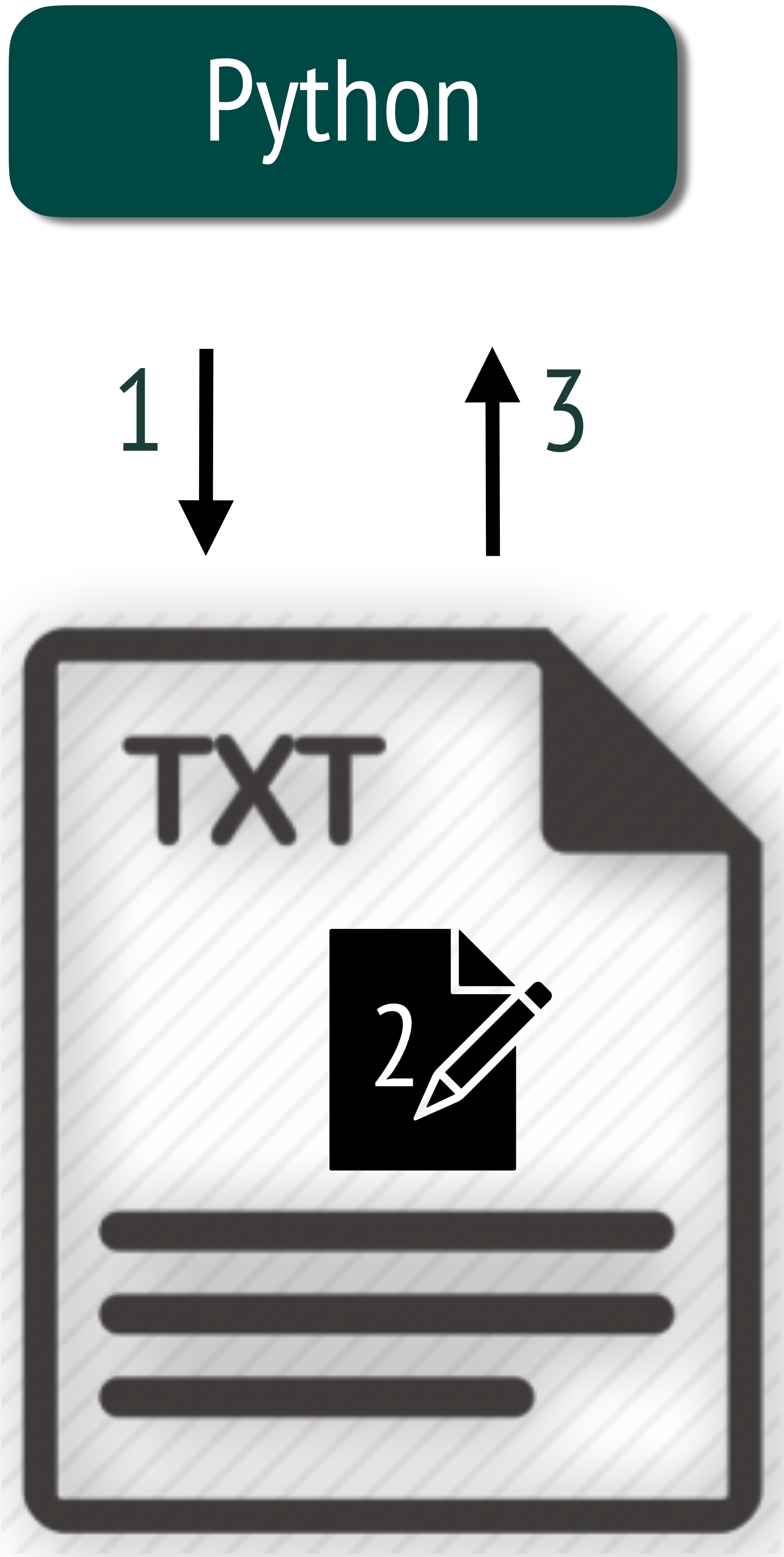
```
My name is Quyen
Hello
How are you today?
```

```python
# connect with a file
file = open("example.txt", 'r')

# read content as string
data = file.read()

print(type(data))
print(data)

# disconnect with a file
file.close()
```

```
[(base) mac@Quyens-MacBook-Pro ex % python file.py
<class 'str'>
My name is Quyen
Hello
How are you today?
(base) mac@Quyens-MacBook-Pro ex %
```

READ FROM A FILE

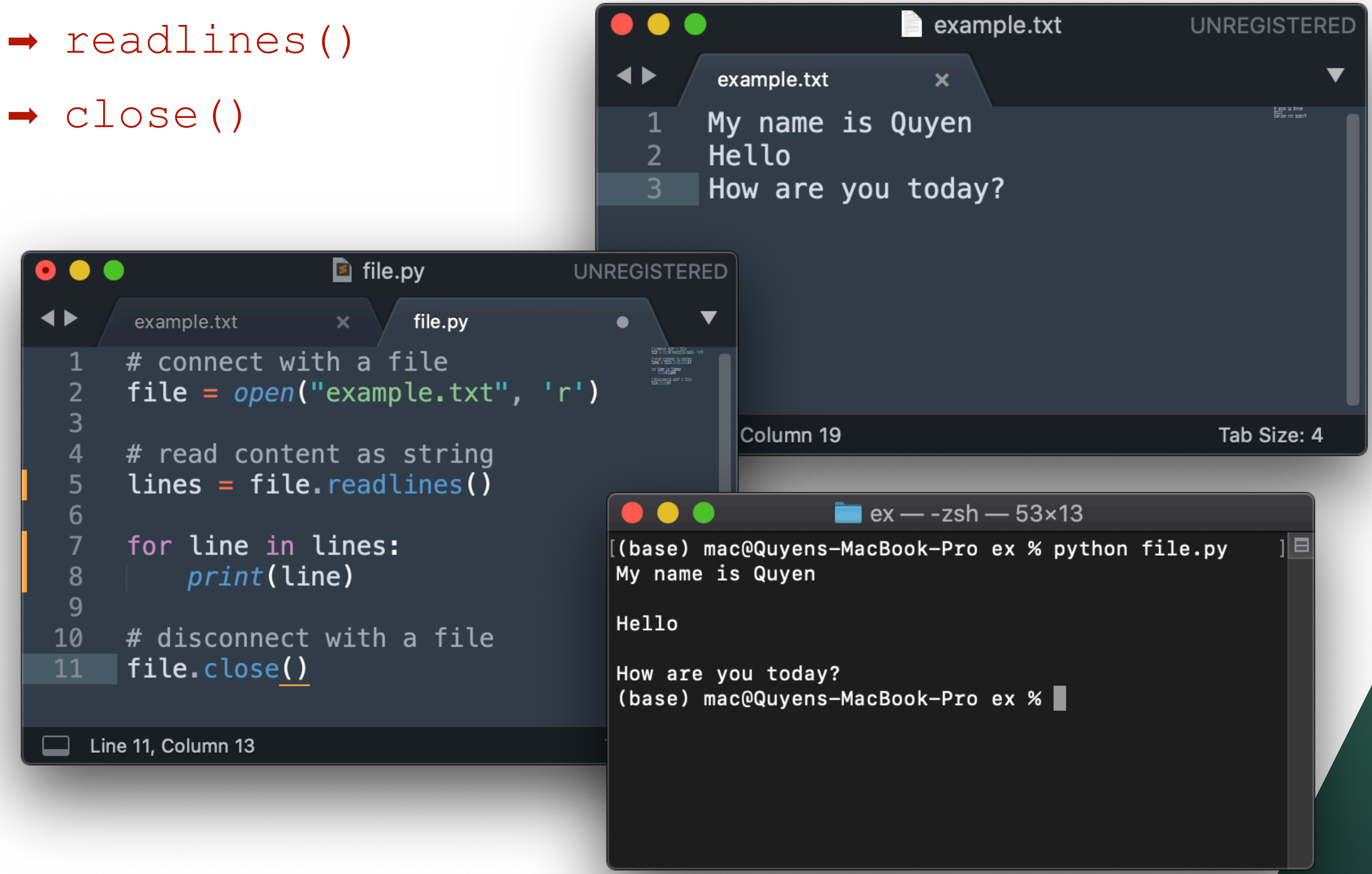
- file already exists, read content from a file as lines



➡ `open(file_path, ‘r’)`

➡ `readlines()`

➡ `close()`



example.txt

```
My name is Quyen
Hello
How are you today?
```

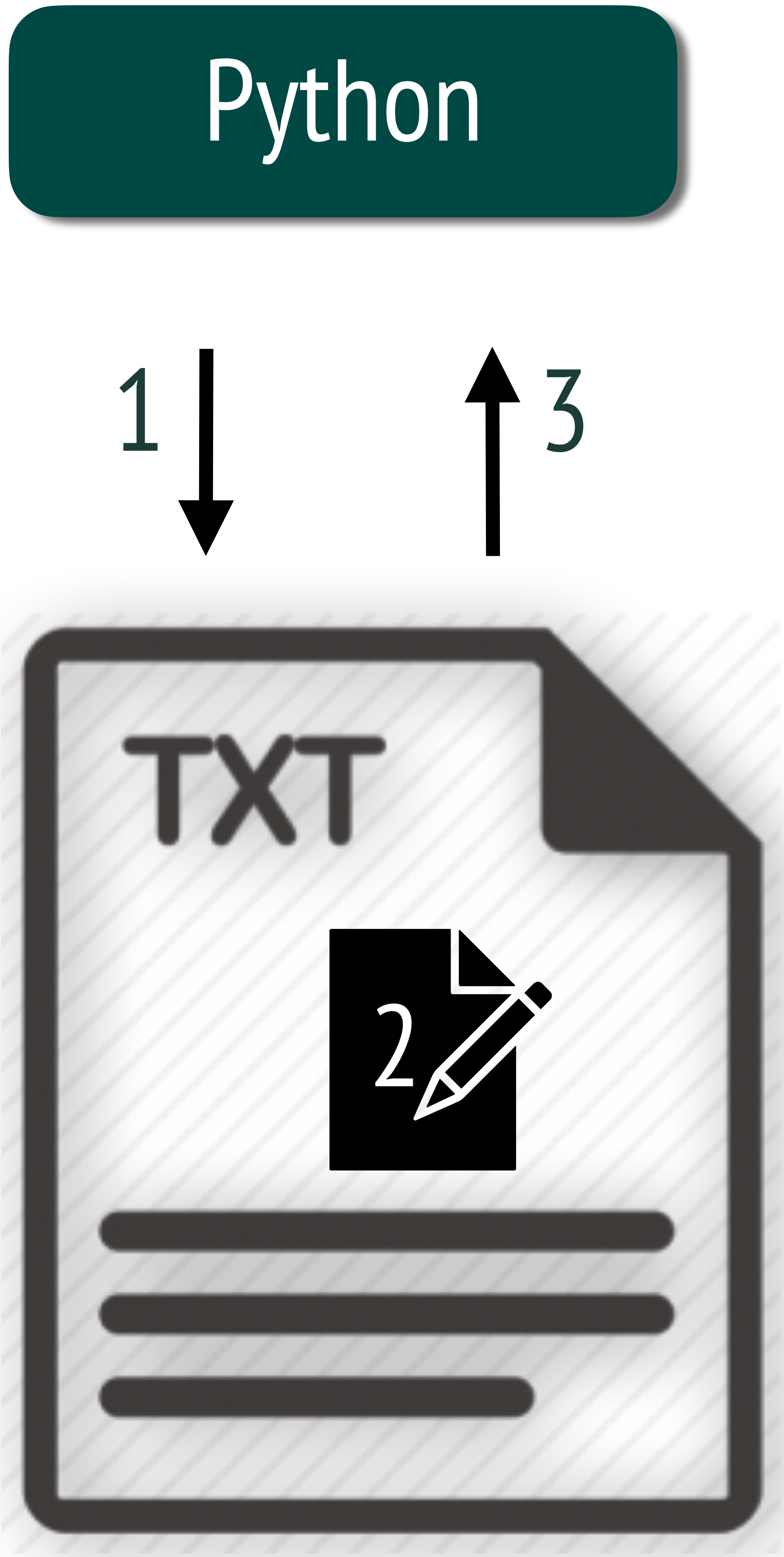
file.py

```python
# connect with a file
file = open("example.txt", 'r')

# read content as string
lines = file.readlines()

for line in lines:
    print(line)

# disconnect with a file
file.close()
```

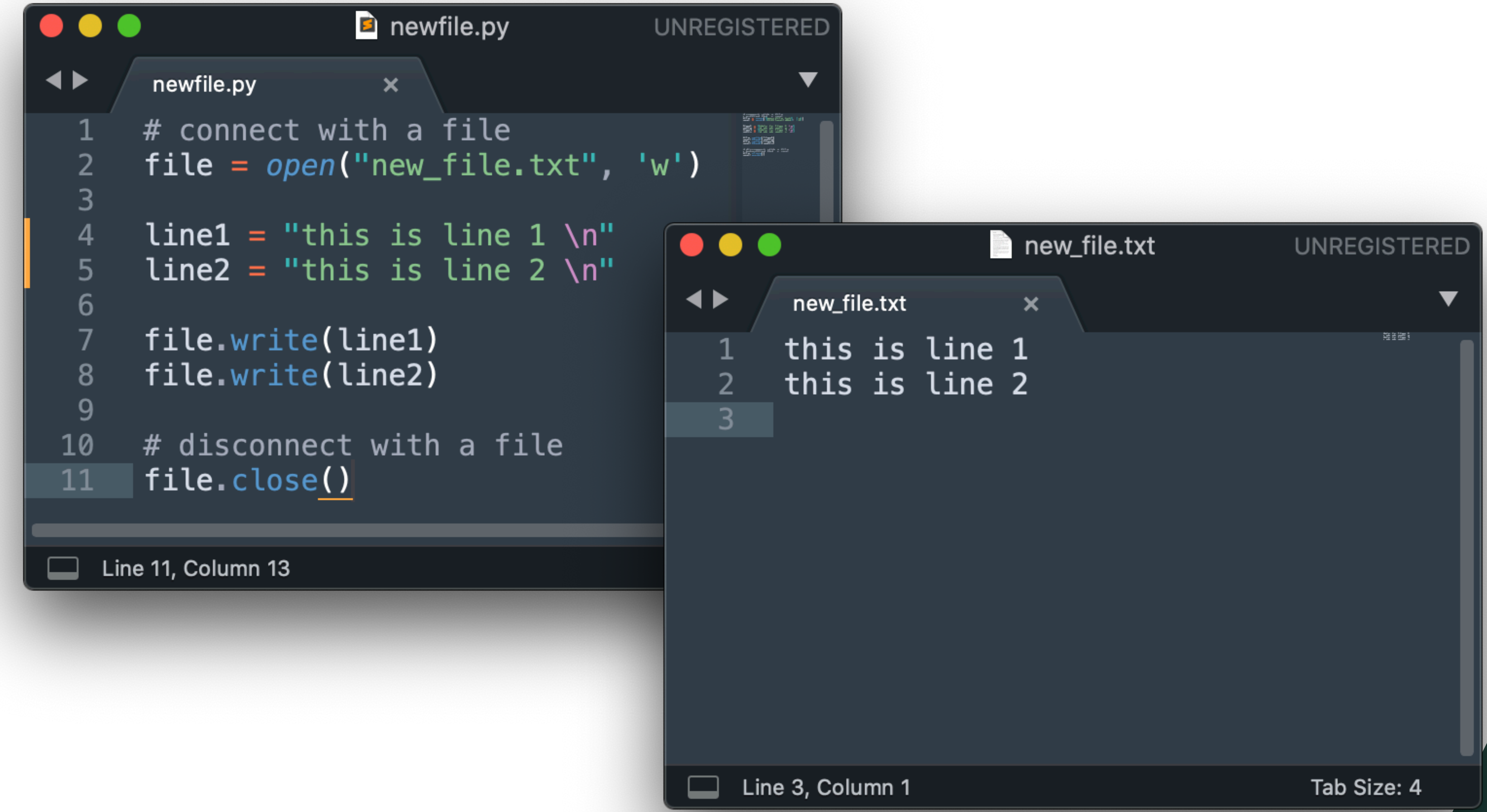
```
(base) mac@Quyens-MacBook-Pro ex % python file.py
My name is Quyen

Hello

How are you today?
(base) mac@Quyens-MacBook-Pro ex %
```

WRITE TO A FILE

- file does not exist



```
➡ open(file_path, ‘w’)
➡ write()
➡ close()
```

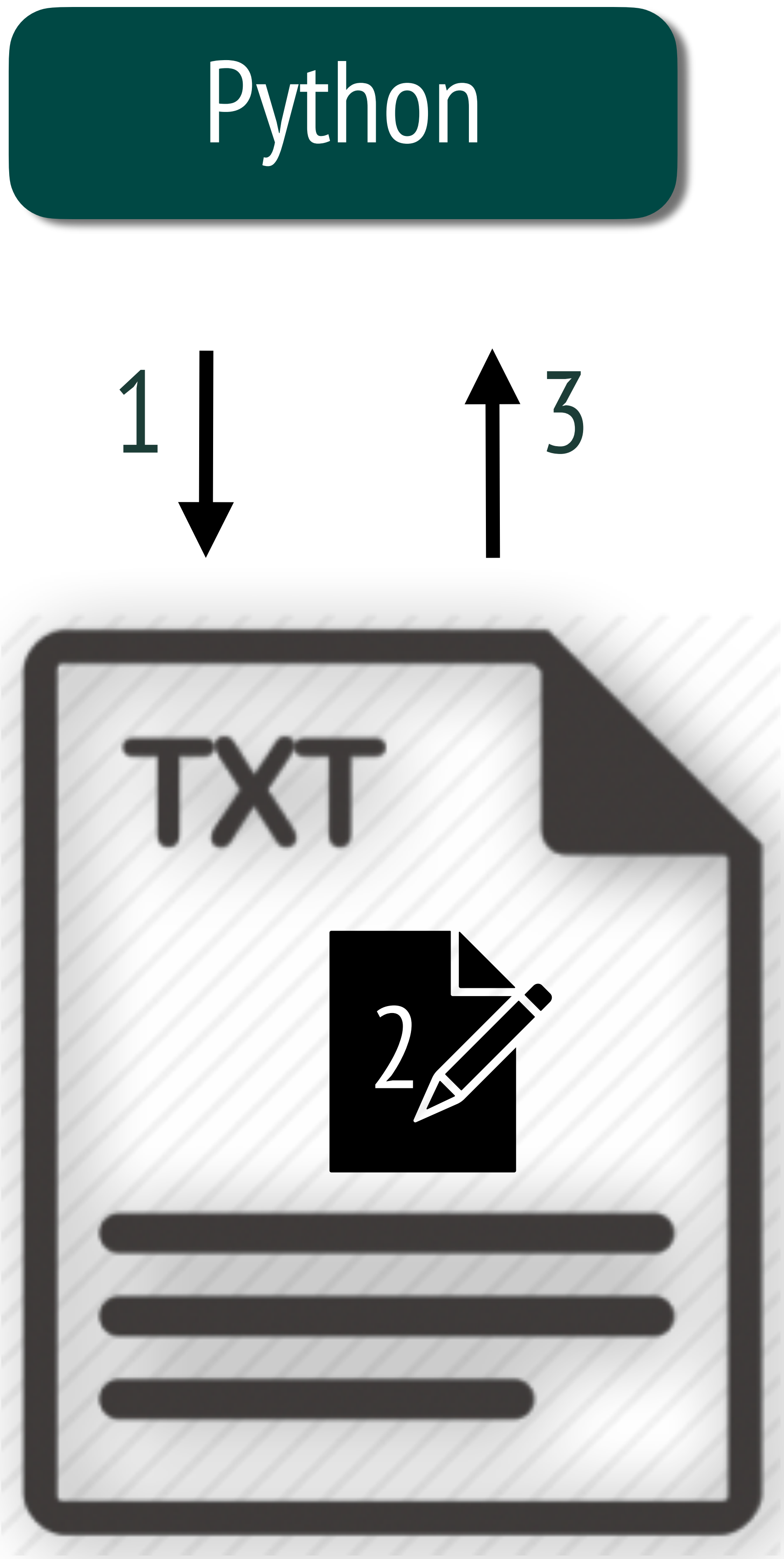


```python
# connect with a file
file = open("new_file.txt", 'w')

line1 = "this is line 1 \n"
line2 = "this is line 2 \n"

file.write(line1)
file.write(line2)

# disconnect with a file
file.close()
```

```
this is line 1
this is line 2

```

WRITE TO A FILE

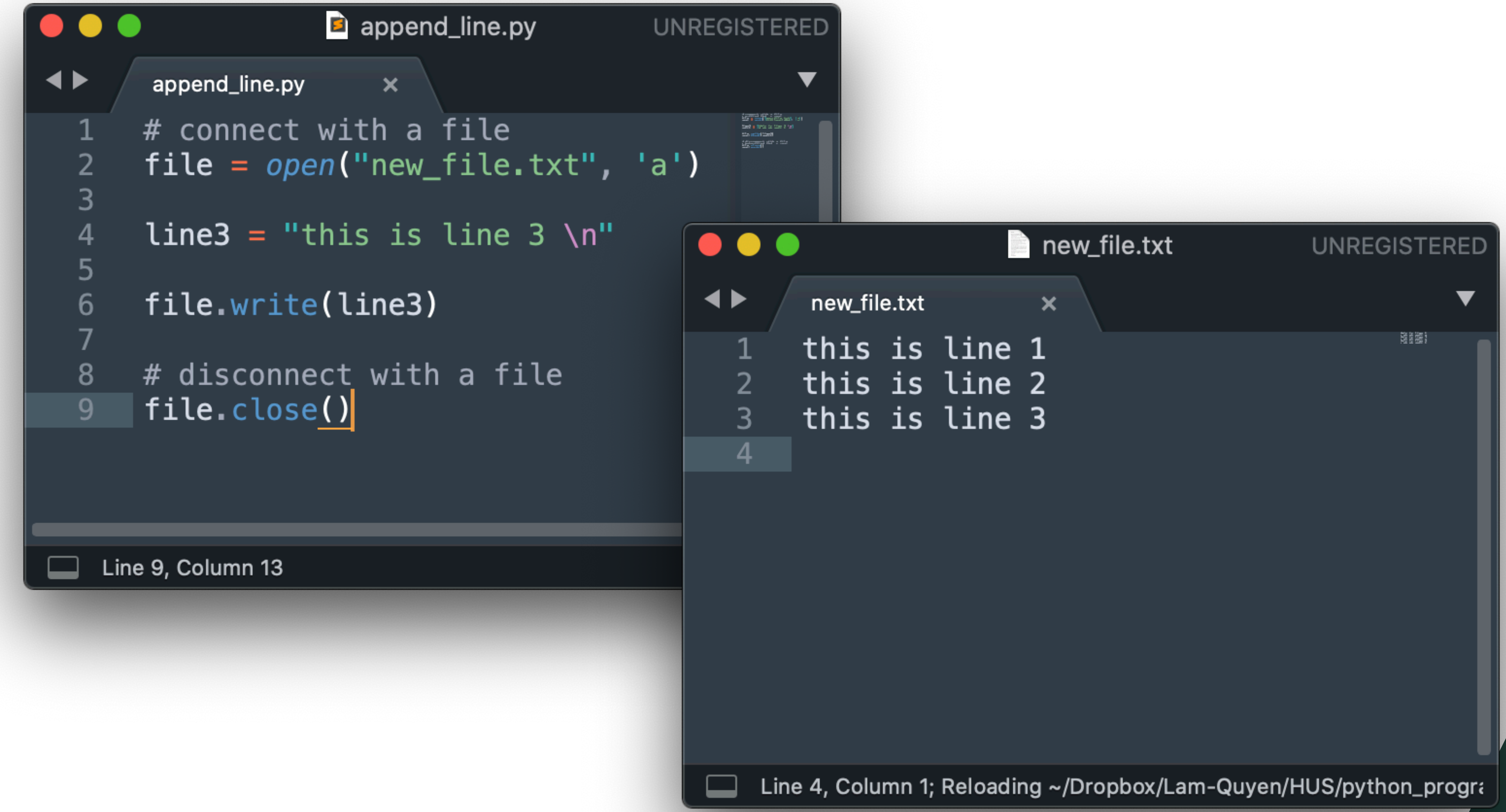
- file already exists (appending content if the file is exist)



➡ open(file_path, ‘a’)

➡ write()

➡ close()



```python
# connect with a file
file = open("new_file.txt", 'a')

line3 = "this is line 3 \n"

file.write(line3)

# disconnect with a file
file.close()
```

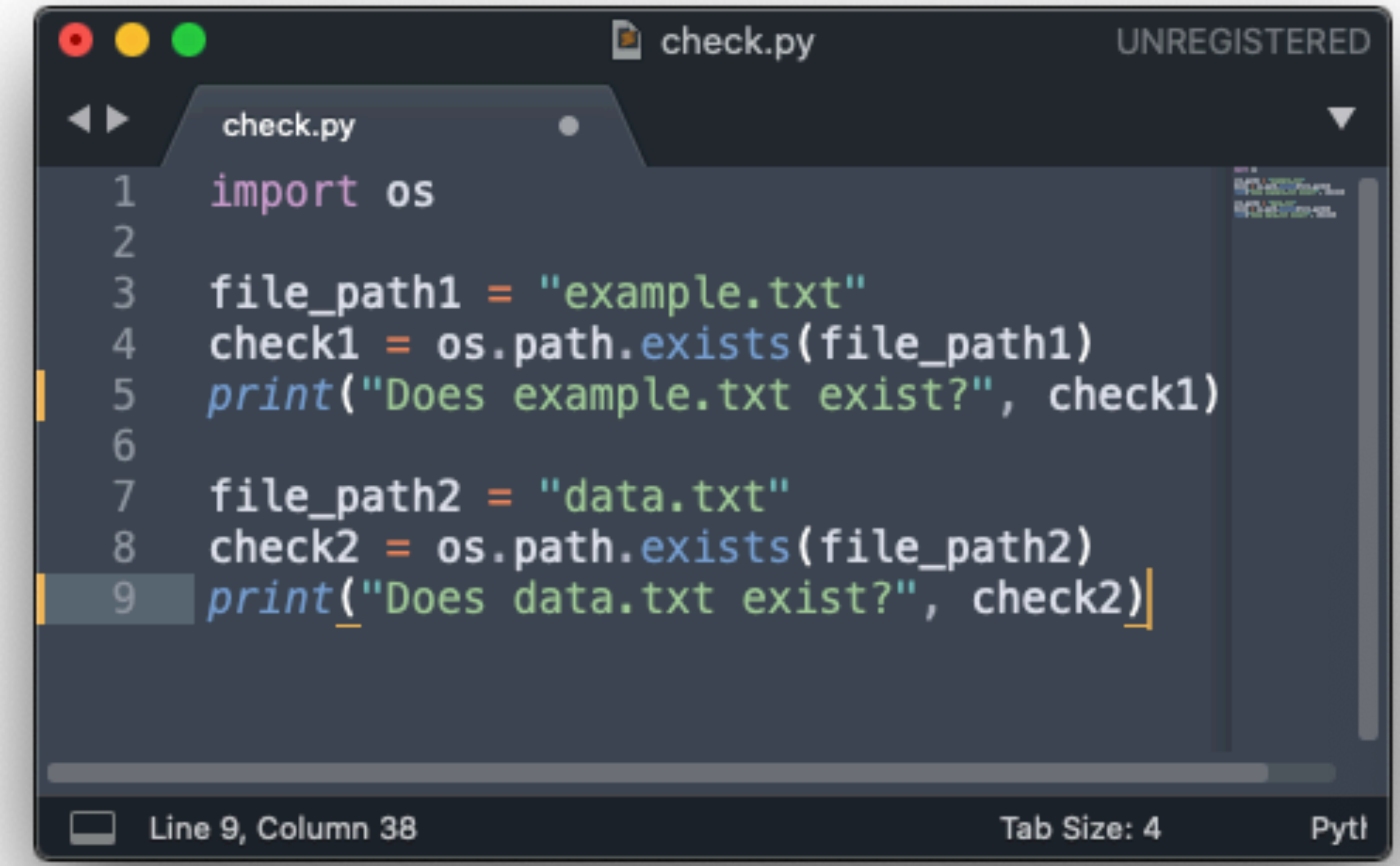
Line 9, Column 13

```
this is line 1
this is line 2
this is line 3

```

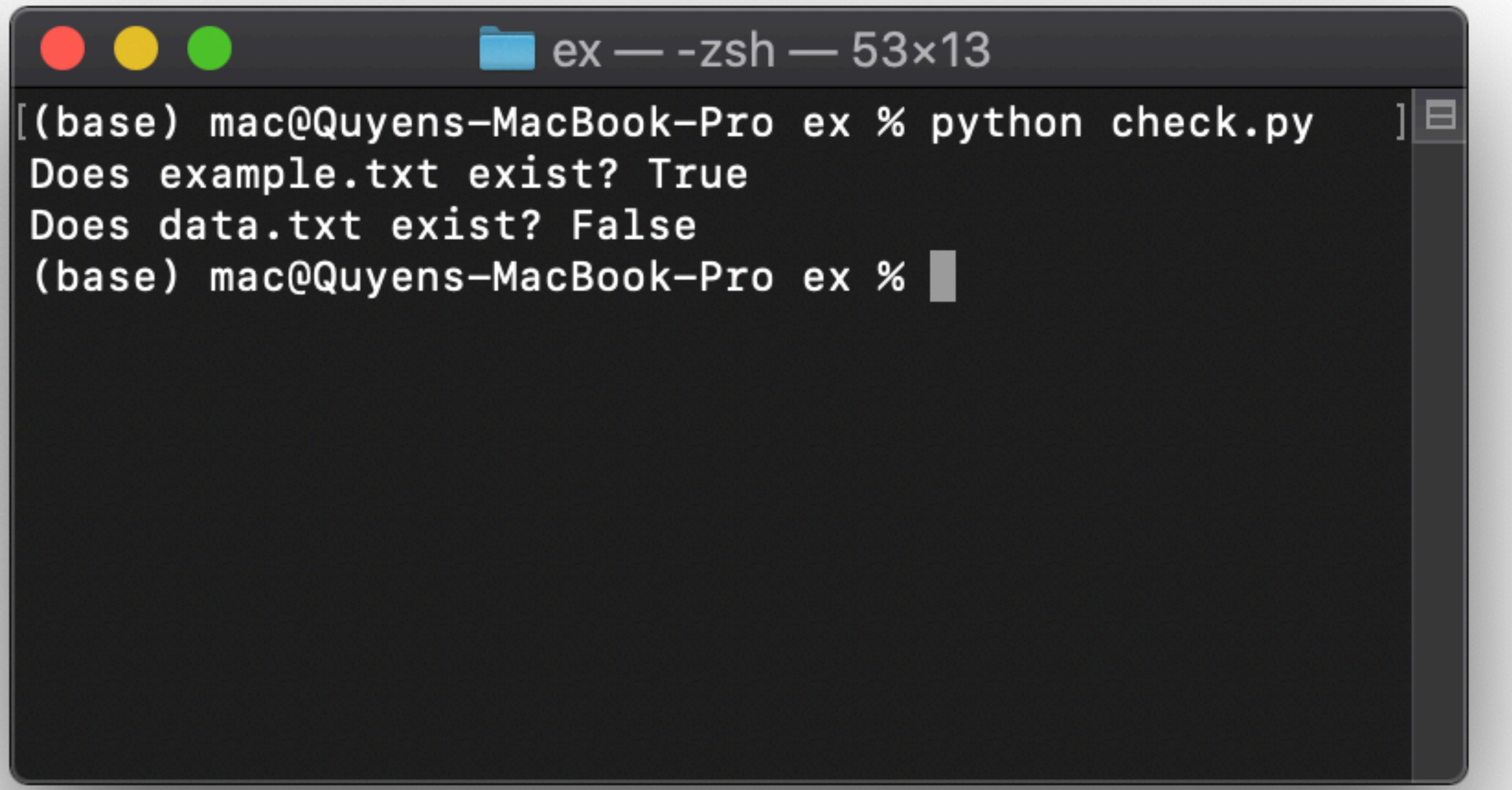
Line 4, Column 1; Reloading ~/Dropbox/Lam-Quyen/HUS/python_progra

USEFUL FUNCTIONS

- Check if a file exists



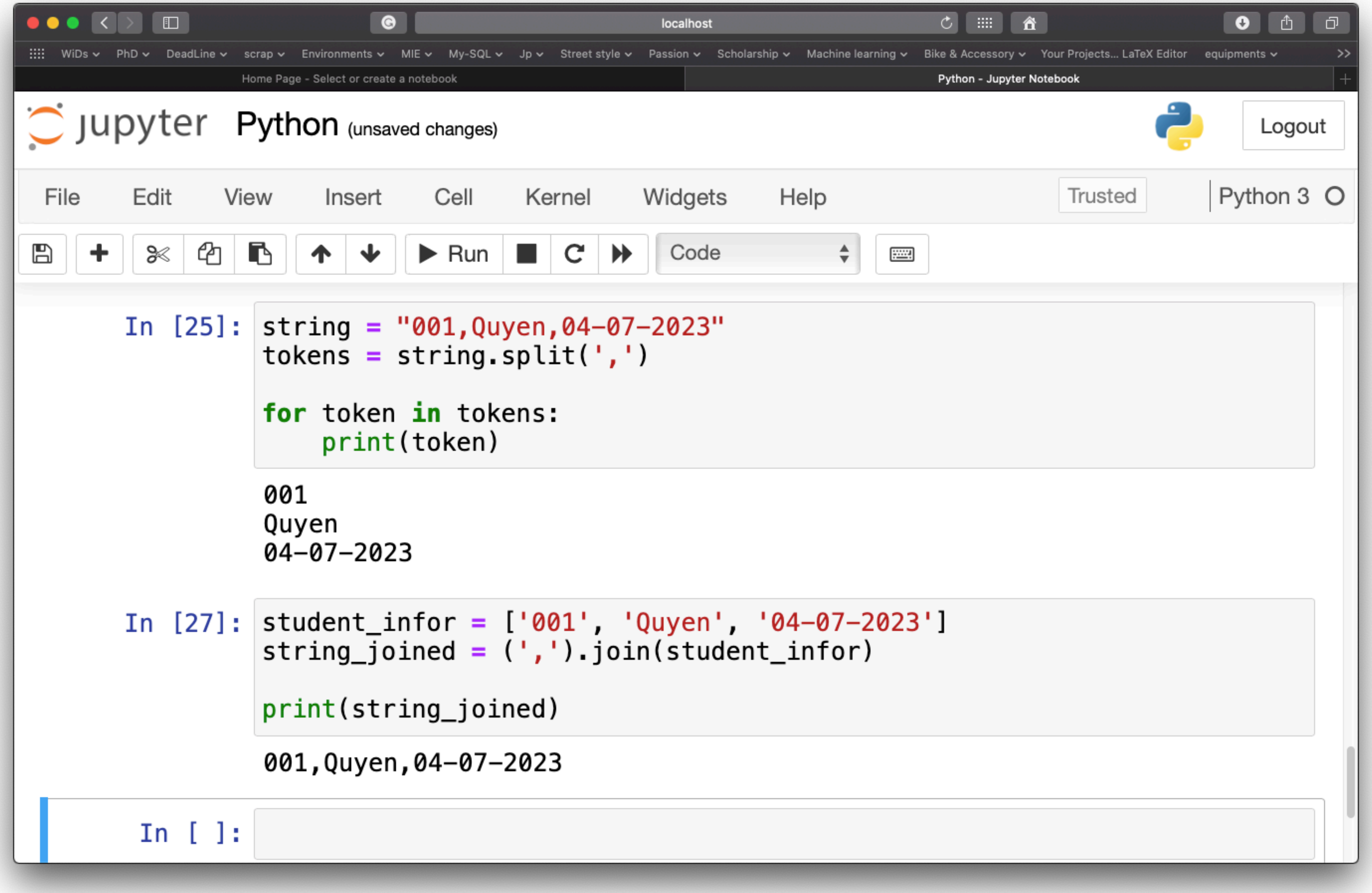
```python
import os

file_path1 = "example.txt"
check1 = os.path.exists(file_path1)
print("Does example.txt exist?", check1)

file_path2 = "data.txt"
check2 = os.path.exists(file_path2)
print("Does data.txt exist?", check2)
```



```
[(base) mac@Quyens-MacBook-Pro ex % python check.py   ]
Does example.txt exist? True
Does data.txt exist? False
(base) mac@Quyens-MacBook-Pro ex %
```

USEFUL FUNCTIONS

- String splitting/ String joining


localhost
WiDs PhD DeadLine scrap Environments MIE My-SQL Jp Street style Passion Scholarship Machine learning Bike & Accessory Your Projects... LaTeX Editor equipments
Home Page - Select or create a notebook
Python - Jupyter Notebook
jupyter Python (unsaved changes)
Logout
File Edit View Insert Cell Kernel Widgets Help
Trusted
Python 3
Run
Code

In [25]:
```
string = "001,Quyen,04-07-2023"
tokens = string.split(',')

for token in tokens:
    print(token)
```

```
001
Quyen
04-07-2023
```

In [27]:
```
student_infor = ['001', 'Quyen', '04-07-2023']
string_joined = (',').join(student_infor)

print(string_joined)
```

```
001,Quyen,04-07-2023
```

In [ ]:

WORKING WITH FILE BY PANDAS

➡ 1. Connect to file

➡ 2. Read from/ write to file

➡ 3. Disconnect to file

- read csv, excel, text, ...
- export to csv, excel, ...

ASSIGNMENT