

File Handling

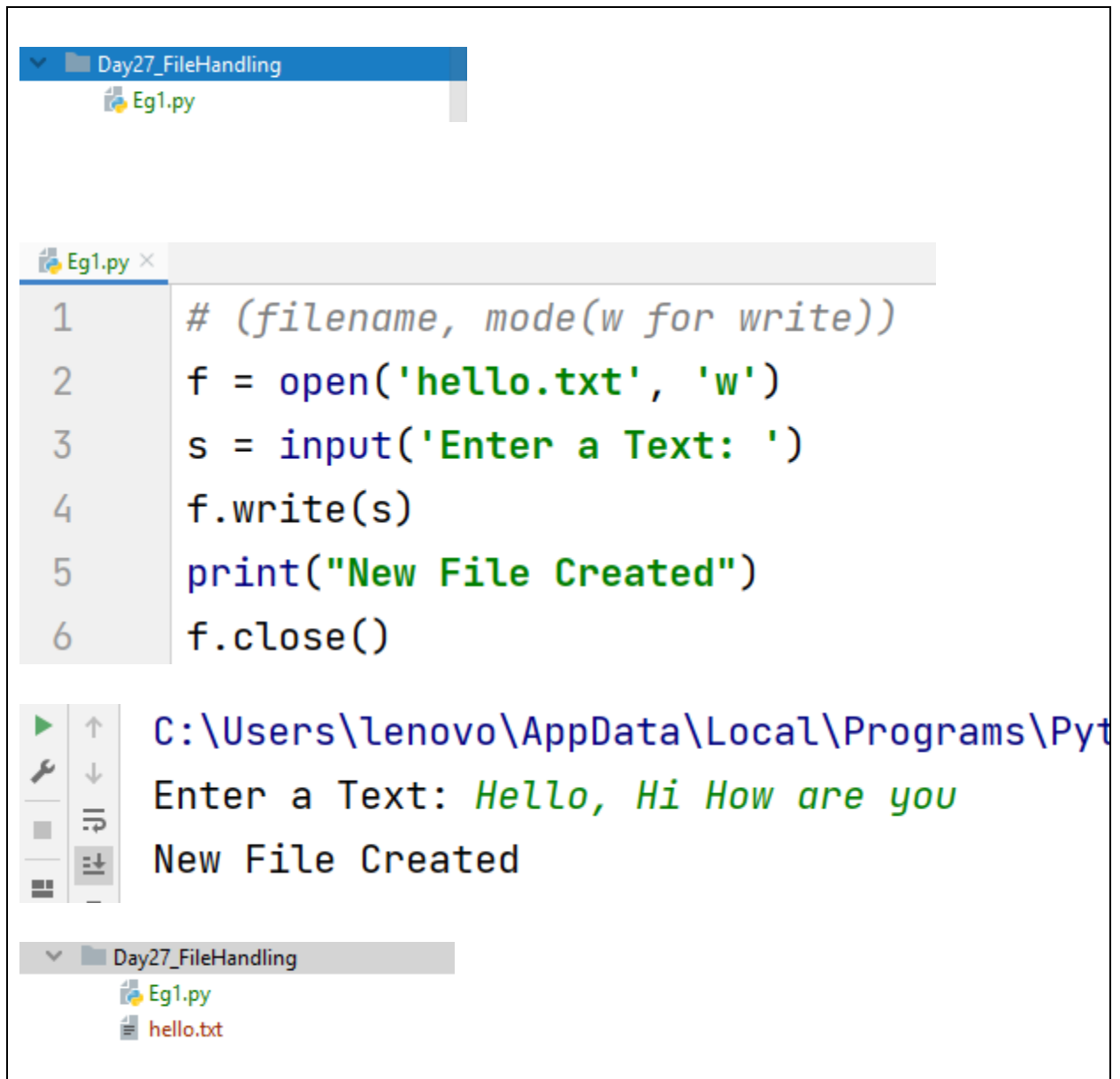
open() function takes two parameters filename and mode

There are four different modes for opening a file

Mode Description

'r'	Open a file for reading. (default)
'w'	Open a file for writing. Creates a new file if it does not exist or truncates the file if it exists.
'x'	Open a file for exclusive creation. If the file already exists, the operation fails.
'a'	Open for appending at the end of the file without truncating it. Creates a new file if it does not exist.
't'	Open in text mode. (default)
'b'	Open in binary mode.
'+'	Open a file for updating (reading and writing)
'x'	Open for exclusive creation
a+	:append and read
r+	:read and write
w+	:write and write

How do you write a data into a file?

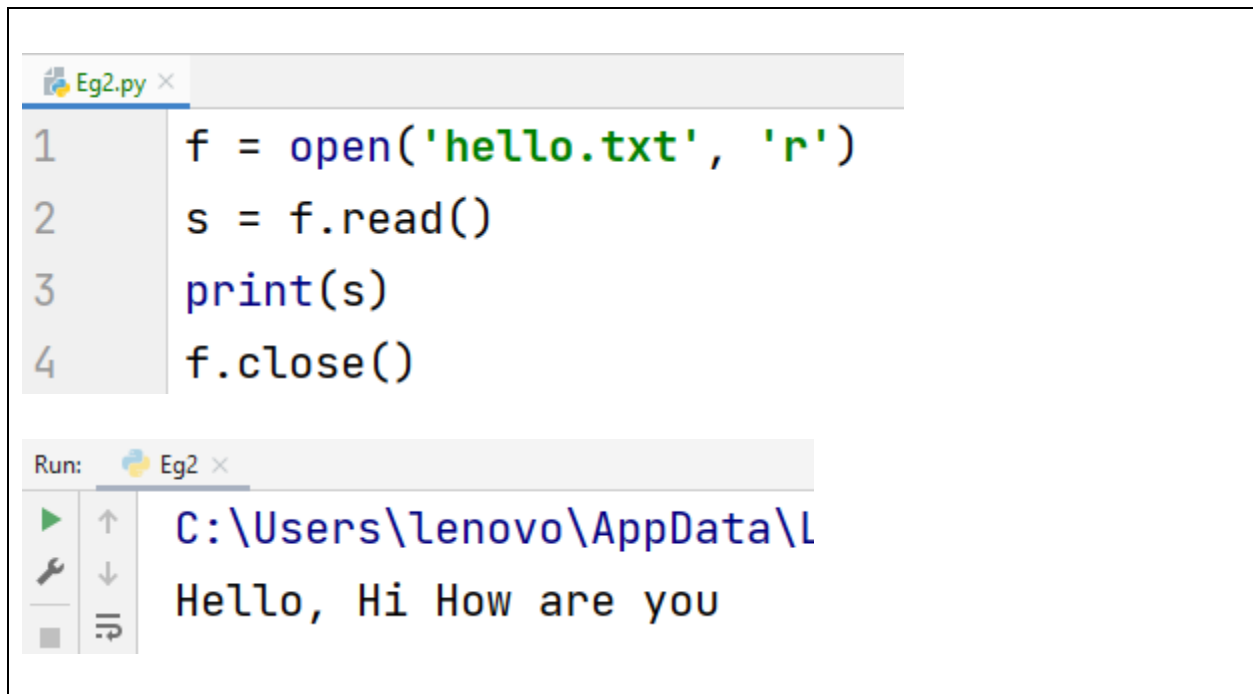


The screenshot shows a Python IDE with a file explorer at the top displaying a folder named 'Day27_FileHandling' containing a file 'Eg1.py'. Below the explorer, the code editor shows the following Python code:

```
1 # (filename, mode(w for write))
2 f = open('hello.txt', 'w')
3 s = input('Enter a Text: ')
4 f.write(s)
5 print("New File Created")
6 f.close()
```

Below the code editor, the console output shows the execution of the script. The first line is the file path: 'C:\Users\lenovo\AppData\Local\Programs\Python\Python39\python.exe'. The second line is the input prompt and user input: 'Enter a Text: Hello, Hi How are you'. The third line is the output: 'New File Created'. At the bottom, the file explorer shows the folder 'Day27_FileHandling' containing the files 'Eg1.py' and 'hello.txt'.

How do you read the data from a file?

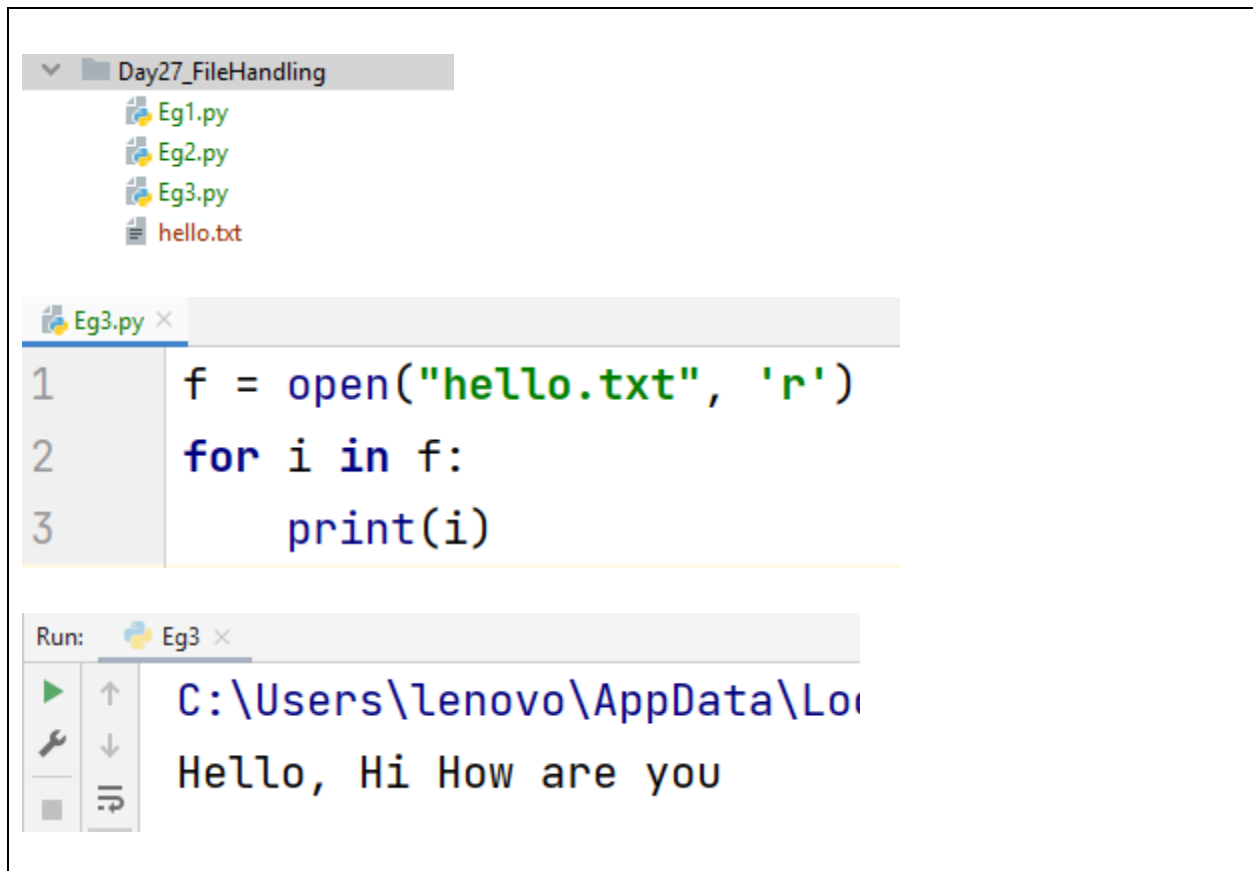


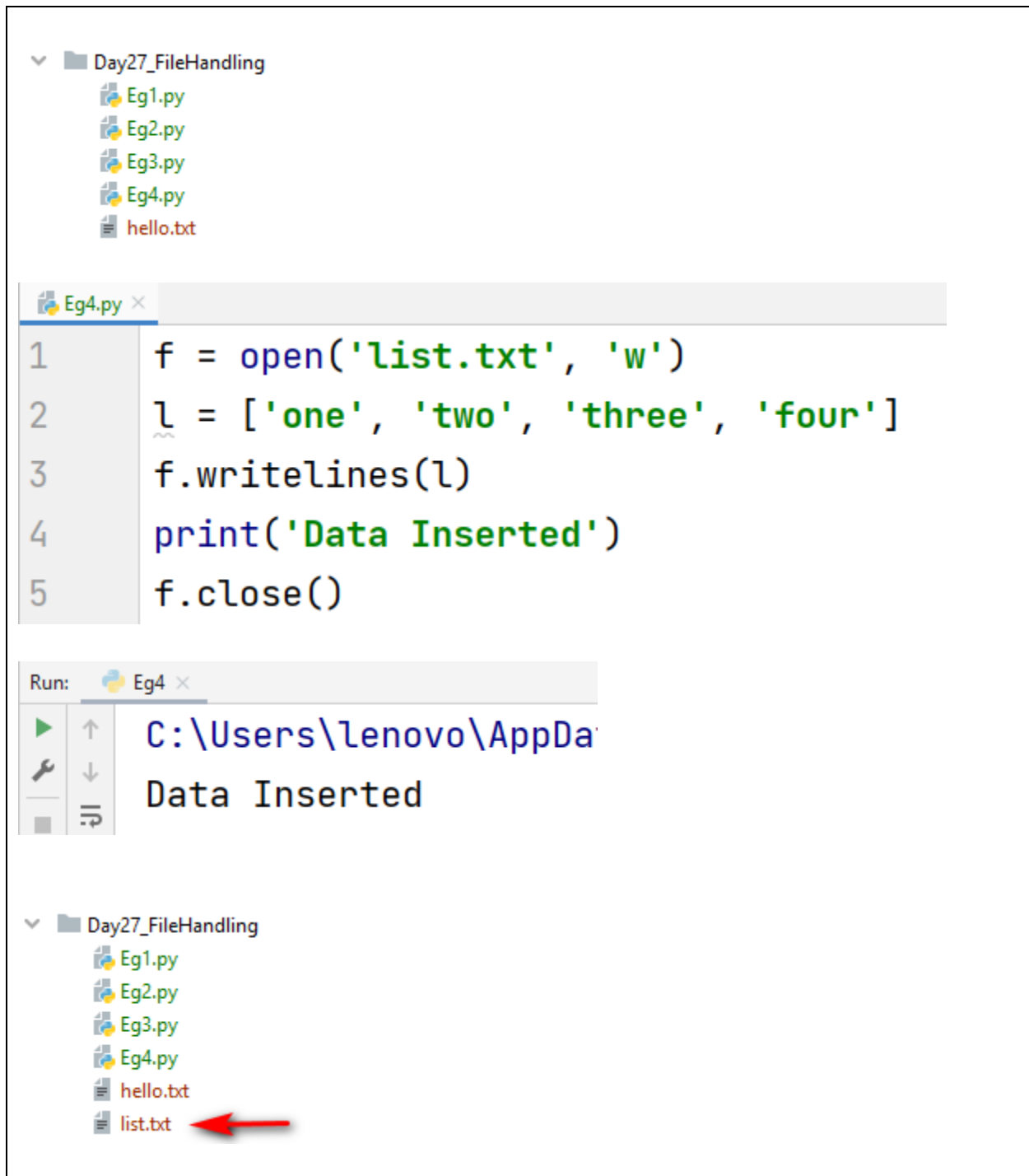
The screenshot displays a Python IDE interface. The top pane, titled 'Eg2.py', contains a four-line script: `f = open('hello.txt', 'r')`, `s = f.read()`, `print(s)`, and `f.close()`. The bottom pane, titled 'Run: Eg2', shows the execution output. It includes a toolbar with a green play button, a wrench icon, and a square icon. The output text is `C:\Users\lenovo\AppData\l` on the first line and `Hello, Hi How are you` on the second line.

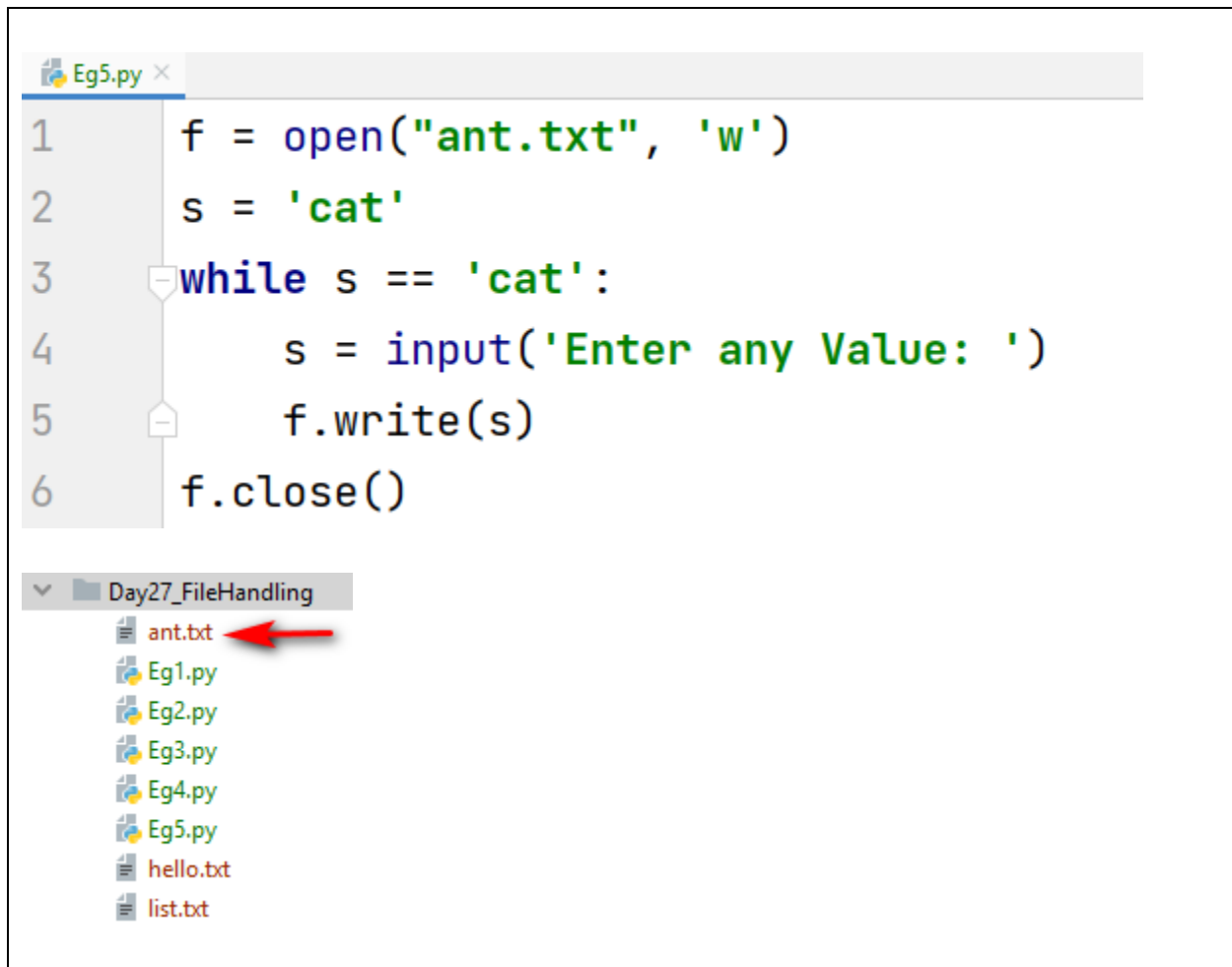
```
1 f = open('hello.txt', 'r')
2 s = f.read()
3 print(s)
4 f.close()
```

Run: Eg2

C:\Users\lenovo\AppData\l
Hello, Hi How are you







The screenshot shows a Python IDE with a file named `Eg5.py` open. The code in the editor is as follows:

```
1 f = open("ant.txt", 'w')
2 s = 'cat'
3 while s == 'cat':
4     s = input('Enter any Value: ')
5     f.write(s)
6 f.close()
```

Below the code editor, a file explorer shows a folder named `Day27_FileHandling`. Inside this folder, there are several files: `ant.txt`, `Eg1.py`, `Eg2.py`, `Eg3.py`, `Eg4.py`, `Eg5.py`, `hello.txt`, and `list.txt`. A red arrow points to the `ant.txt` file, indicating it is the target of the file operation in the code.

tell()

This method returns the current position of the file read/write pointer within the file. It's position starts from zero

▼ Day27_FileHandling

ant.txt

Eg1.py

Eg2.py

Eg3.py

Eg4.py

Eg5.py

Eg6.py

hello.txt

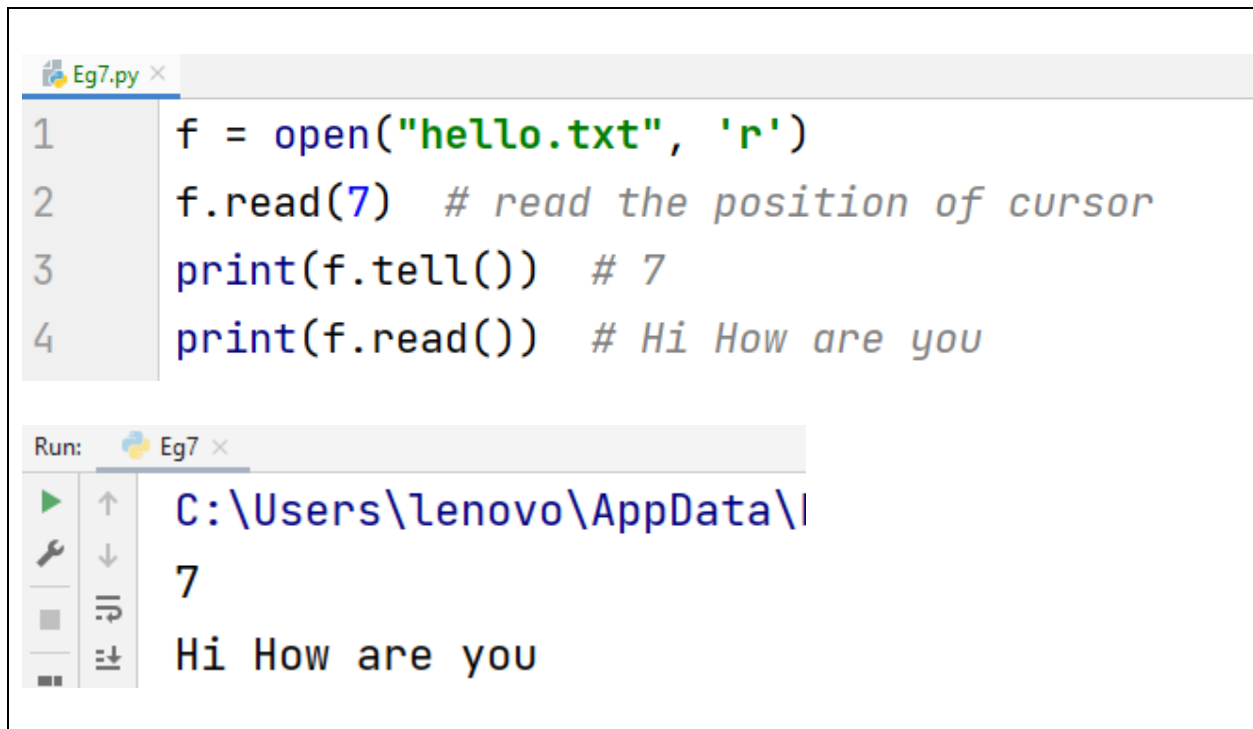
list.txt

Eg6.py x

```
1 f = open("hello.txt", 'r')
2 print(f.tell()) # 0
3 print(f.read()) # Hello, Hi How are you
4 print(f.tell()) # 21
```

Run: Eg6 x

```
C:\Users\lenovo\AppData\
0
Hello, Hi How are you
21
```



The image shows a screenshot of a Python IDE. The top pane displays a script named `Eg7.py` with the following code:

```
1 f = open("hello.txt", 'r')
2 f.read(7) # read the position of cursor
3 print(f.tell()) # 7
4 print(f.read()) # Hi How are you
```

The bottom pane, titled `Run: Eg7`, shows the output of the script:

```
C:\Users\lenovo\AppData\l
7
Hi How are you
```

The output is displayed in a console window with a vertical toolbar on the left containing icons for running, stepping through, and other debugging actions.

seek()

This seek() method is used to change the position of the cursor
The cursor is always started from beginning.

▼ Day27_FileHandling

ant.txt

Eg1.py

Eg2.py

Eg3.py

Eg4.py

Eg5.py

Eg6.py

Eg7.py

Eg8.py

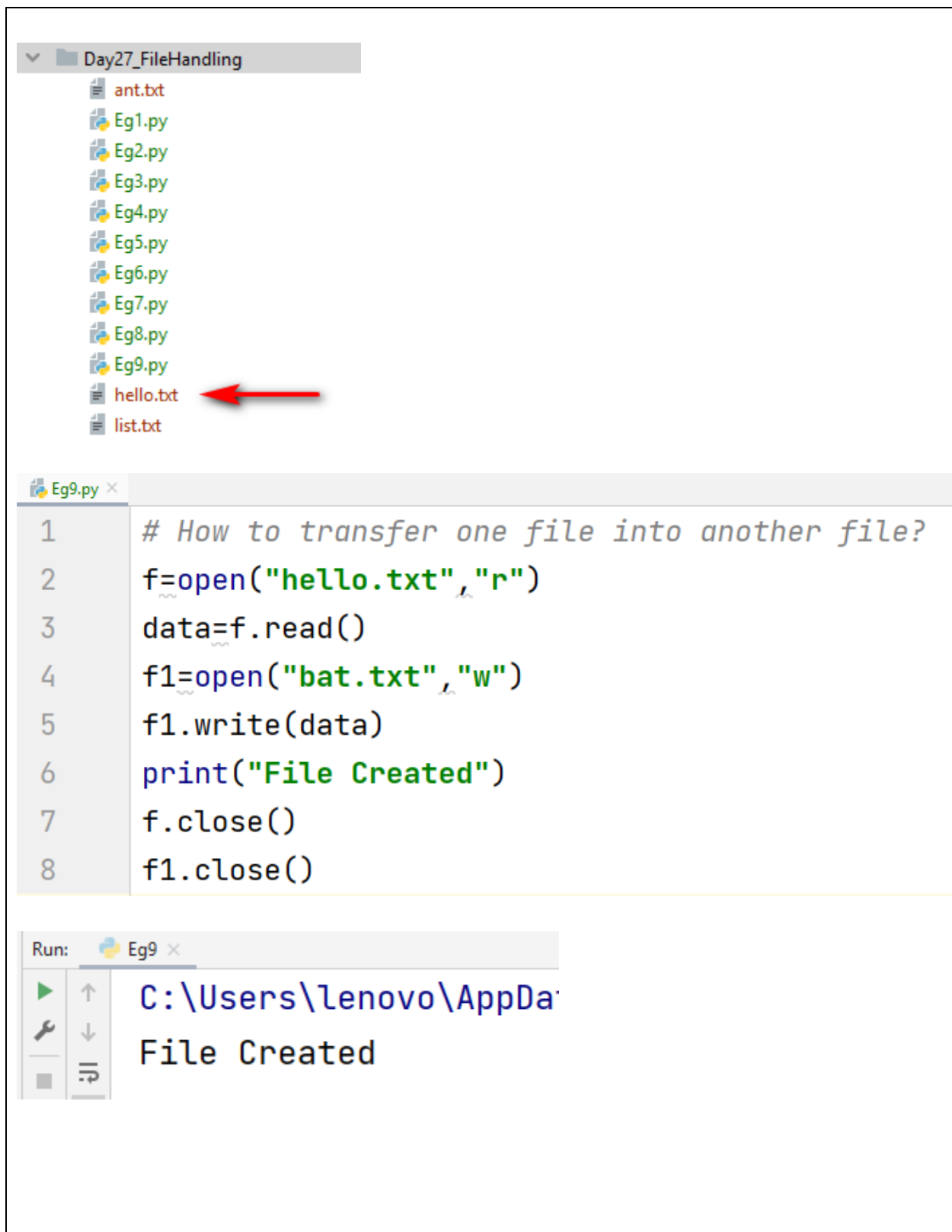
hello.txt

list.txt

f.read(2) → reads the 2 Characters

```
Eg8.py x
1 f = open("hello.txt", 'r')
2 print(f.tell()) # 0
3 print(f.read(2)) # He
4 f.seek(0) # seek will change the position
5 print(f.read()) # Hello, Hi How are you
```

```
Run: Eg8 x
C:\Users\lenovo\AppData\l
0
He
Hello, Hi How are you
```



File Created Here

▼ Day27_FileHandling

ant.txt

bat.txt

Eg1.py

Eg2.py

Eg3.py

Eg4.py

Eg5.py

Eg6.py

Eg7.py

Eg8.py

Eg9.py

hello.txt

list.txt