**• Reading from a file using read(), readline(), readlines().**

In Python, you can read from a file using different methods, each serving a specific purpose. Below, I'll explain the three common methods: **read()**, **readline()**, and **readlines()**,

Read():

The **read()** method reads the entire content of the file as a single string.

**Ex.**

with open('example.txt', 'r') as file:

content = file.read()

print("Content of the file using read():")

print(content)

**Readline()**

The **readline()** method reads a single line from the file each time it is called. You can call it multiple times to read subsequent lines.

Ex.

with open('example.txt', 'r') as file:

first\_line = file.readline()

second\_line = file.readline()

print("First line using readline():", first\_line.strip())

print("Second line using readline():", second\_line.strip())

**Readlines():**

The **readlines()** method reads all the lines in the file and returns them as a list of strings, where each string is a line from the file.

Ex.

with open('example.txt', 'r') as file:

lines = file.readlines()

print("Lines in the file using readlines():")

for line in lines:

print(line.strip())

**• Writing to a file using write() and writelines().**

The **write()** method writes a single string to the file. If the file is opened in write mode (**'w'**), it will overwrite the existing content. If the file is opened in append mode (**'a'**), it will add the string to the end of the file.

Ex.

file\_name = 'output.txt'

with open(file\_name, 'w') as file:

file.write('Hello, World!\n')

file.write('This is a line of text.\n')

print(f'Text has been written to {file\_name} using write().')

### writelines

The **writelines()** method writes a list of strings to the file. Unlike **write()**, it does not add newline characters automatically, so you need to include them in the strings if you want each string to appear on a new line.

Ex.

file\_name = 'output\_lines.txt'

lines\_to\_write = [

'First line of text.\n',

'Second line of text.\n',

'Third line of text.\n'

]

with open(file\_name, 'w') as file:

file.writelines(lines\_to\_write)

print(f'Lines have been written to {file\_name} using writelines().')