

# 7 File Handling

Jacques Mock Schindler

10.09.2025

To edit text files in Python, we write a function that assigns the content of a file to a variable as a string.

```
1 def file_reader(path : str) -> str:
2
3     with open(path, mode='r', encoding='utf-8') as f:
4         text = f.read()
5
6     return text
```

To write encrypted or decrypted text to a file in Python, we write a function that writes a string to a file.

```
1 def file_writer(path : str, text : str) -> None:
2     i = 0
3     grouped_text = ""
4     for c in text:
5         i += 1
6         if i % 50 == 0:
7             grouped_text += c + "\n"
8         elif i % 5 == 0:
9             grouped_text += c + " "
10        else:
11            grouped_text += c
12
13    with open(path, mode='w', encoding='utf-8') as f:
14        f.write(grouped_text)
```

To ensure that texts consist exclusively of ASCII uppercase letters, we write a function that converts all lowercase letters to uppercase and converts all umlauts to their equivalent letters. All other characters are removed.

```
1 def text_cleaning(text : str) -> str:
2     clean = text.upper() \
3         .replace('Ä', 'AE') \
4         .replace('Ö', 'OE') \
5         .replace('Ü', 'UE') \
6         .replace('ß', 'SS') \
7         .replace(' ', '') \
8
9     cleaned_text = ''
10
11     for c in clean:
12         if c.isalpha():
13             cleaned_text += c
14
15     return cleaned_text
```