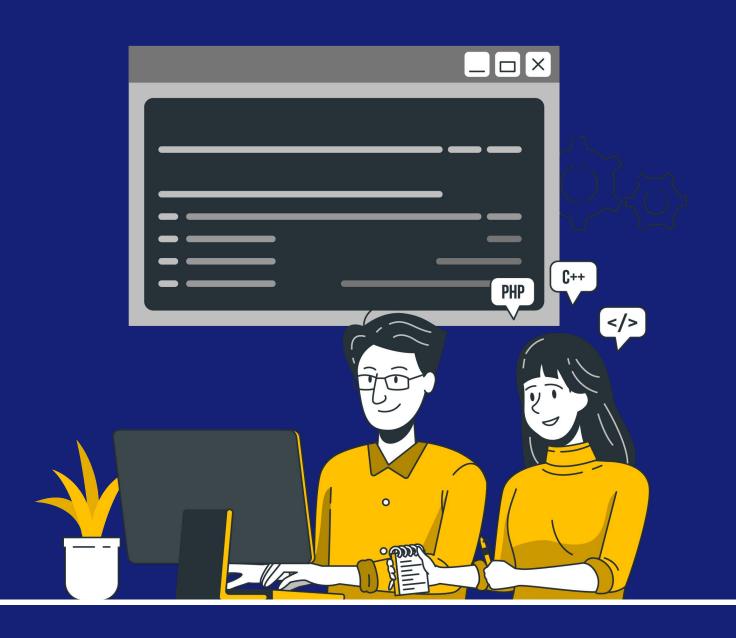


Reading & Writing files

Lesson Plan





Reading and writing files in Python is straightforward and involves a few basic steps. Here's a quick overview:

Reading Files

1. Open a File:

- Use the 'open()' function with the file name and mode ('r' for reading).
- Example:

```
file = open('filename.txt', 'r')
```

2. Read Content:

- You can read the entire file at once with **'read()'**, or read line-by-line with **'readline()'** or 'readlines()'.
- Example:

```
content = file.read()
# or
line = file.readline()
# or
lines = file.readlines()
```

3. Close the file:

- Always close the file to free up resources using 'close()'.
- Example:

```
file.close()
```

1. Open a File:

- Use the 'open()' function with the file name and mode ('w' for writing, 'a' for appending, or 'x' for creating a new file).
- Example:

```
file = open('filename.txt', 'w')
```

2. Write Content:

- Use 'write()' or 'writelines()' to write to the file.
- Example:

```
file.write("Hello, World!")
# or
file.writelines(["Hello, World!\n", "Welcome to Python."])
```



- 3. Close the File:
- Again, remember to close the file using 'close()'.
- Example:

```
file.close()
```

Using 'with' Statement

A more common and recommended approach is using a with statement. It ensures that the file is properly closed after its suite finishes.

Reading:

```
with open('filename.txt', 'r') as file:
    content = file.read()
```

Writing:

```
with open('filename.txt', 'w') as file:
    file.write("Hello, World!")
```

Example Code

Here's a full example that reads from one file and writes to another:

```
# Reading from a file
with open('input.txt', 'r') as infile:
    content = infile.read()

# Writing to another file
with open('output.txt', 'w') as outfile:
    outfile.write(content)
```

Example

1. How to read a file:

```
#open the file
text_file = open('/Users/pankaj/abc.txt','r')

#get the list of line
line_list = text_file.readlines();

#for each line from the list, print the line
for line in line_list:
    print(line)

text_file.close() #don't forget to close the file
```



Output:

2. How to write a file:

```
#open the file
text_file = open('/Users/pankaj/file.txt','w')

#initialize an empty list
word_list= []

#iterate 4 times
for i in range (1, 5):
    print("Please enter data: ")
    line = input() #take input
    word_list.append(line) #append to the list

text_file.writelines(word_list) #write 4 words to the file

text_file.close() #don't forget to close the file
```

Output:

```
>>>
=========== RESTART: /Users/pankaj/Desktop/write-file.py ===
Please enter data:
1
Please enter data:
2
Please enter data:
3
Please enter data:
4
>>>
```