

Chapter 9: Working with Files in Python

Questions and Answers

Question 1: How do you open a file in read mode and read its entire content?

Answer: To open a file in read mode and read its entire content, you use the `open()` function with the mode `"r"`, and then use the `read()` method. Here is an example:

```
# Open the file in read mode
f = open("this.txt", "r")

# Read the entire content of the file
content = f.read()

# Print the content
print(content)

# Close the file
f.close()
```

This code opens the file `this.txt`, reads its content, prints it, and then closes the file.

Question 2: How can you read the second line of a file?

Answer: To read the second line of a file, you can use the `readline()` method twice. Here is an example:

```
# Open the file in read mode
f = open("this.txt", "r")

# Read the first line (we won't use it)
f.readline()

# Read the second line
second_line = f.readline()

# Print the second line
print("Second Line:", second_line.strip())

# Close the file
f.close()
```

This code skips the first line and reads the second line, then prints it.

Question 3: How do you write to a file in Python?

Answer: To write to a file, you use the `open()` function with the mode `"w"` (write mode), and then use the `write()` method. Here is an example:

```
# Open the file in write mode
f = open("this.txt", "w")

# Write a string to the file
f.write("This is a new line of text.")

# Close the file
f.close()
```

This code opens the file `this.txt` in write mode, writes a line of text to it, and then closes the file.

Question 4: How can you append a new line to an existing file?

Answer: To append a new line to an existing file, you use the `open()` function with the mode `"a"` (append mode), and then use the `write()` method. Here is an example:

```
# Open the file in append mode
f = open("this.txt", "a")

# Append a new line to the file
f.write("\nThis is an appended line of text.")

# Close the file
f.close()
```

This code opens the file `this.txt` in append mode, appends a new line of text to it, and then closes the file.

Question 5: How do you read the first four lines of a file?

Answer: To read the first four lines of a file, you can use the `readline()` method four times. Here is an example:

```
# Open the file in read mode
f = open("this.txt", "r")

# Read the first four lines
line1 = f.readline()
line2 = f.readline()
line3 = f.readline()
line4 = f.readline()

# Print each of the four lines
print("Line 1:", line1.strip())
print("Line 2:", line2.strip())
print("Line 3:", line3.strip())
print("Line 4:", line4.strip())

# Close the file
f.close()
```

This code reads and prints the first four lines of the file `this.txt`.