

File Handling & Lists

<p>Open a file and print the first line:</p> <pre>file = open("names.txt", "r") line = file.readline() print(line) file.close()</pre>	What does the "r" stand for?	
	What letter would you use to write to a file?	
	How would you change the code to print the first two lines?	
	How would you change the code to print the first 8 lines?	
<p>Split the data up:</p> <pre>file = open("names.txt", "r") line = file.readline() data = line.split(",") print(data[0]) print(data[1]) print(data[2]) file.close()</pre>	How does the program know where to split the line?	
	What is the technical term to describe the variable 'data'?	
	How would you change the code to print out (piece by piece) the first 4 lines?	

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<p>Use an If statement:</p> <pre>file = open("names.txt", "r") line = file.readline() data = line.split(",") if data[0] == "Catwoman": print(line) file.close()</pre>	<p>What happens when you run this code - why?</p>	
	<p>Rewrite the code so that it checks the entire file</p>	
	<p>Rewrite the code so that it prints out all of the heroes</p>	

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<p>Write to a file:</p> <pre>for i in range(4): file = open("new.txt", "w") string = input("Type text: ") file.write(string + '\n') file.close()</pre>	<p>What happens when you run this code? Why?</p>	
	<p>There are two ways to solve the problem. Describe at least one of them.</p>	
	<p>Use the code from the last section to write a new file with all of the heroes in it, but none of the villains</p>	
	<p>Adapt the code to create two new files - one full of heroes and one full of villains. Print your program and stick it in your book.</p>	

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Opening two files at the same time:

```
file = open("names.txt","r")
file2 = open("address.txt","r")
line = file.readline()
data = line.split(",")
for i in range(13):
    line2 = file2.readline()
    data2 = line2.split(",")
    if data[1] == data2[0]:
        print(data[0])
        print(data[1])
        print(data[2])
        print(data2[1])
        print(data2[2])
        print(data2[3])
file.close()
file2.close()
```

Explain - in as much detail as you can - what this code does and how it works

Explain why the variable names used can be confusing and suggest better ones.

Write one final program that prints the real name, superhero name and address of every person who is present in both files.

Extensions:

1. Write the real name, superhero name and address details to a new file instead of printing to the screen
2. Create 3 new files - one for the names and addresses of heroes, one for villains and one for 'supers' whose addresses we don't know