**Level 1: Reading a Text File**

1. Open a new Python Repl and run the following program.

fileHandle = open("myfile.txt","r")

fileContents = fileHandle.read()

print(fileContents)

fileHandle.close()

1. Why does this program produce a run-time error?

It does not open because there is no file with that name. You must first create the file, than it is possible.

1. Add a text file to your project as follows:
   * Click on “Add File” icon in the files pane/window.
   * Type “myfile.txt” and return.
   * “myfile.txt” is now open in the editor pane/window.
   * Type some text into “myfile.txt”
   * Make sure to add several lines of text

1. Switch back to main.py pile and run the program.
   1. What gets printed out?

The text that has been typed inside of the file

* 1. Explain the result.

1. Load and run the following program.

fileHandle = open("myfile.txt","r")

line = fileHandle.readline()

count = 1

while line :

print("Line ", count, " : ",line.strip())

line = fileHandle.readline()

count += 1

fileHandle.close()

1. Compare and contrast the output of the first and second program
   1. How is the read() function similar to the readline() function?

Both read and readline rewrite the text that was put int the folder.

* 1. How is the read() function different from the readline() function?

The read function simple shows the text exactly how you wrote it but the readline function, shows the text line by line beginning with a “Line *n* :”

1. Research the Python open() function for file I/O (input / output).
   1. How do you specify which file to open?

In the brackets you specify which file you want to open by using the name of the file.

* 1. Modify the program to open a different file.

fileHandle = open("agentmyfile.txt")

fileContents = fileHandle.read()

print(fileContents)

fileHandle.close()

1. Research how to open a file in a sub-directory.
   1. Modify the second program to open a file in a sub-directory.
   2. Demo your program to Mr. Nestor
   3. List your program modifications below

fileHandle = open("Spies/agentmyfile.txt")

fileContents = fileHandle.read()

print(fileContents)

fileHandle.close()

**Level 2: Writing a Text File**

1. Research the Python open() function for file I/O (input / output).
   1. What does the file mode “r” mean?

Mode “r” is for reading.

* 1. What mode is used to open a file for writing?

Mode “w”

* 1. What other file modes can be used? List and explain their meanings.

Append means “a”

1. Load and run the following program.

print("Enter test to write to a file")

print("Type STOP to end the program")

print(" ")

lineNumber = 0

while True :

lineNumber += 1

userPrompt = "Enter Line " + str(lineNumber) + " : "

userText = input(userPrompt)

if userText == "STOP" :

break

print(userText)

1. Modify the program to open a text file for writing.
   1. Demo your program to Mr. Nestor
   2. List your program modifications below
2. Replace the line “print(userText)” with a command to write the value of “userText” to an open file.
   1. Verify that text was written to your file
   2. Demo your program to Mr. Nestor
   3. List your program modifications below

**Level 3: Binary Files**

t.b.d.

<http://www.ece.ualberta.ca/~elliott/ee552/studentAppNotes/2003_w/misc/bmp_file_format/bmp_file_format.htm>