**Student Questions:**

1. Refer to the lesson slides to do the following:
   1. Create a folder called “resources”
   2. Create a file called “myfile.txt”
   3. Select “myfile.txt” to be displayed in the Repl editor window
   4. Copy & paste the following text into “myfile.txt”

- Done

*Hello kind student\n*

*This is a message from your computer\n*

*I hope you are having fun learning to program\n*

*Remember to ask Mr. Nestor questions when you don’t understand.*

1. Refer to the lesson slides to create a program do the following:
   1. Open “myfile.txt” for reading
   2. Read each line from “myfile.txt” and print it to the console output
   3. Close “myfile.txt”
   4. Provide your program listing below.

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

numLines = 0

for line in fileHandle :

print(line)

numLines += 1

print("Number of lines in ", numLines)

fileHandle.close()

1. Refer to the lesson slides to create a program do the following:
   1. Create “newfile.txt” and open it for writing
   2. Write several lines of text to the file
   3. Close “newfile.txt”
   4. Select “newfile.txt” to be displayed in the Repl editor window to confirm   
      the proper text was written
   5. Provide your program listing below.

fileHandle = open("newfile.txt", "w+")

fileHandle.write("Hello, this is a new file.\n")

fileHandle.write("You should see this text when you ")

fileHandle.write("select the file in the file choser window.\n")

fileHandle.close()

1. Research “Python open() Text Files” to learn more about text files
   1. List and explain of the following modes: r, r+, w, w+, a, a+, x

``r'' Open text file for reading. The stream is positioned at the

beginning of the file.

``r+'' Open for reading and writing. The stream is positioned at the

beginning of the file.

``w'' Truncate file to zero length or create text file for writing.

The stream is positioned at the beginning of the file.

``w+'' Open for reading and writing. The file is created if it does not

exist, otherwise it is truncated. The stream is positioned at

the beginning of the file.

``a'' Open for writing. The file is created if it does not exist. The

stream is positioned at the end of the file. Subsequent writes

to the file will always end up at the then current end of file,

irrespective of any intervening fseek(3) or similar.

``a+'' Open for reading and writing. The file is created if it does not

exist. The stream is positioned at the end of the file. Subse-

quent writes to the file will always end up at the then current

end of file, irrespective of any intervening fseek(3) or similar.

“x” Creates a new file if there isn’t already one.

1. Research “Python Binary Files” to learn more about binary data files
   1. List and explain of the following modes: t, b

B: changes thing to binary mode

T: Cannot be found

* 1. Explain the difference between a text file and a binary file

Both binary and text files contain data stored in bits, and the bits in text files are stored as characters while the bit in binary files are stored as custom data.

* 1. List some applications that use text data files

Microsoft word, text pad, notepad2, WordPad, Microsoft Powerpoint.

* 1. List some applications that use binary data files

1. Microsoft office, adobe Photoshop and many other audio or video and media player

**Extension Question: (Optional)**

1. Write a program to do the following:
   1. Open a file for read, write and append.
   2. Print the contents of the existing file to console output
   3. Ask the user to type a line of text on the console input and store the text in a variable
   4. Ask the user if they want to append or overwrite the text in the file
   5. If they say “append” then append the new text to the end of the file
   6. If they say “overwrite” then delete the existing text and just add the   
      new text to the file
   7. Provide your program listing below.