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| **Unit:** Language Basics | **Turn In List:** **1. This document** |
| *“I will understand and implement sequential file access.”* | |

**Title: Sequential File Access**

**Content Objectives:** Students will become familiar with how to access, read, write and manipulate external data.

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| **Starter Activity** |
| Research the difference between [sequential](http://en.wikipedia.org/wiki/Sequential_access) and [random](http://en.wikipedia.org/wiki/Random_access) file access: ***In a sequential access file you can only read and write information sequentially, starting from the beginning of a file, while in random file access you can read or write information anywhere in the file*** |

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| **Assignment:** |
| Students will use the following websites and internet searches to complete the table below:  Java: <http://www.tutorialspoint.com/java/java_files_io.htm>  C++: <http://www.tutorialspoint.com/cplusplus/cpp_files_streams.htm>  C#: <http://www.tutorialspoint.com/csharp/csharp_file_io.htm>  Python: <http://www.tutorialspoint.com/python/python_files_io.htm> and the final lesson of CodeAcademy |

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| **Include Sample Code or Explanation for the following Concepts Below (copy and paste lines from editor)** | |
| What is the proper syntax for opening a file stream? | >>> f = open("test.txt") # open file in current directory  >>> f = open("C:/Python33/README.txt") # specifying full path |
| What is the syntax writing to a file? | fileObject.write( str ) |
| What is the proper syntax for closing a file stream? | fileObject.close(); |
| Where must the file reside in relation to your source code? | Within the same folder as the other code |
| List and describe three modes or methods specific to your language that deal with writing or reading info to a file. | r+= Opens file for reading and writing  r=Opens file for reading  w=Opens file for writing |

Psuedocode an app that draws randomly from a string array of 10 open-ended thought provoking questions, whose answer is typed to the console by the user and stored in an “output.txt” file with question before it.

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| The syntax doesn’t work with what we want, we tried to work it out in class but nothing worked |

Divide and conquer! Group leads may break the app into code blocks that accomplish small portions of the functionality mentioned above in pseudocode. Group leads will then take submissions through GitHub to piece together the master code for the group!

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