

EEN 218
Lab #1
C++ Refresher and Objects

Exercise #1

1. Design an object to represent a Person
 - a. Include properties such firstName, lastName,
2. Implement your Person object in C++ using a struct
3. Write a function to print out the Person
4. Test your functions to make sure they work

Exercise #2

1. Design an object to represent a Book.
 - a. Include properties such as title, author, language, year, rating etc.
 - i. The author is a Person object
 - b. Include a Constructor that sets the title, author, publisher, year
 - c. Include methods such as print, setRating, etc.
2. Implement your Book in C++ using a class making all the properties private
3. Test the methods to make sure they work

Exercise #3

1. Create an array of Books
2. Use the data from the given file to populate your array
 - a. Write a function to read the data from a file
3. Write a function to print out the all the books in the array
4. Write a function to reverse your array of Books
5. Write a function to write out the reversed array to a new file
6. Test your functions
7. You can test the overall correctness by reading in the reversed file, reversing it, writing it out, and then comparing it to the original file.

Exercise #4

1. Design an object to represent a Library
 - a. Include properties such as name, array of books, owner
 - i. Owner is a Person object
 - b. Include a Constructor with no parameters
 - c. Include setter/getter methods for the properties
 - d. Include methods for print the library
2. Implement your Library in C++ using a class making all the properties private
3. Load the data from the file into the Library
4. Test your methods to make sure they work