**Lab 10**

In this assignment, we will practice using Linear Search to solve a problem.

First, your program reads the titles of a collection of books from a data file and stores them in an array. This should be done using a **user defined function named "ReadData".** This function should have 3 parameters:

* the input file stream,
* the array of book titles, and
* the number of books read from the file (think: should this parameter be passed by value? or by reference?)

Next, it sorts all the book titles into ascending order alphabetically

Afterwards, the program goes into a query mode prompting the user to query whether a book is in the collection. If the book is in the collection, it display its location in the collection. If the book is not in the collection, inform the user about that. The query mode ends when the usr enters an empty string, i.e., simply press the "ENTER" key when prompted for book title.

Notice: The index of the first element in the array is 0. Yet, for the output, the value corresponding to the first book should be 1. Same goes for the location values returned in the query mode.

Here is an example run of the program:

1 : A Bend in the Road

2 : A New Earth: Awakening to Your Life's Purpose

3 : A Spool of Blue Thread: A novel

4 : Cane River

5 : Drowning Ruth: A Novel

6 : I Know This Much Is True: A Novel

7 : Middlesex: A Novel

8 : Night (Night)

9 : Ruby

10 : Shantaram: A Novel

11 : She's Come Undone

12 : Take Me With You

13 : The Alchemist

14 : The Book of Awakening: Having the Life You Want by Being Present to the Life You Have

15 : The Gifts of Imperfection: Let Go of Who You Think You're Supposed to Be and Embrace Who You Are

16 : The Invention of Wings

17 : The Life We Bury

18 : The Nightingale

19 : The Pecan Man

20 : The Plum Tree

21 : The Secret Life of Bees

22 : The Untethered Soul: The Journey Beyond Yourself

23 : We Are Water: A Novel (P.S.)

24 : What I Know For Sure

25 : What She Left Behind

26 : When I Found You

27 : While I Was Gone

28 : Whistling Past the Graveyard

29 : Yellow Crocus

Enter the book title: Ruby

The book is at location 9

Enter the book title: The Plum Tree

The book is at location 20

Enter the book title: While I Was Gone

The book is at location 27

Enter the book title: Harry Potter

The book is not in the collection.

Enter the book title: The Dragon Maker

The book is not in the collection.

Enter the book title: Take Me With You

The book is at location 12

Enter the book title:

You may use the Linear Search code and the insertion sort code discussed in class for this program.