In this exercise, you will learn how to read a text file and use String and StringBuilder classes to process text data.

Problem statement: The program should take user input for name of a text file and the string to be searched in it. The file has semi-colon separated values. Each row has data about books. The output should show the rows in which the search string appears. It should also show how many rows have the search string in them. The search is supposed to be case-insensitive. Create a file named **BookList.txt** that has data about books – Title, Author(s), Pages, and Publisher in a semi-colon separated values format, as shown below:

```
Good to Great; Jim Collins; 300; Harper Business;
Outliers; Malcolm Gladwell; 336; Back Bay Books;
Blink; Malcolm Gladwell; 296; Back Bay Books;
The 7 Habits of Highly Effective People; Stephen Covey; 432; Simon & Schuster;
Core Java Volume 1; Cay S. Horstmann, Gary Cornell; 836; Prentice Hall;
Core Java Volume 2; Cay S. Horstmann, Gary Cornell; 1152; Prentice Hall;
```

The following screenshots show how the program should flow in terms of input and output

```
Enter the file name:
BookList.txt
Enter what you are looking for
people
Found records: 1
The 7 Habits of Highly Effective People; Stephen Covey; 432; Simon & Schuster;
```

Figure 1: Screenshot 1

```
Enter the file name:
BookList.txt
Enter what you are looking for
Java
Found records: 2
Core Java Volume 1; Cay S. Horstmann, Gary Cornell; 836; Prentice Hall;
Core Java Volume 2; Cay S. Horstmann, Gary Cornell; 1152; Prentice Hall;
```

Figure 2: Screenshot 2

```
Enter the file name:
BookList.txt
Enter what you are looking for
blah blah
Found records: 0
Sorry blah blah not found in BookList.txt
```

Figure 3: Screenshot3

```
Enter the file name:
BookList.txt
Enter what you are looking for

Found records: 6
Good to Great; Jim Collins; 300; Harper Business;
Outliers; Malcolm Gladwell; 336; Back Bay Books;
Blink; Malcolm Gladwell; 296; Back Bay Books;
The 7 Habits of Highly Effective People; Stephen Covey; 432; Simon & Schuster;
Core Java Volume 1; Cay S. Horstmann, Gary Cornell; 836; Prentice Hall;
Core Java Volume 2; Cay S. Horstmann, Gary Cornell; 1152; Prentice Hall;
```

Figure 4: Screenshot 4

Hints:

Create one class called BookFinder with member variables and methods as shown below.

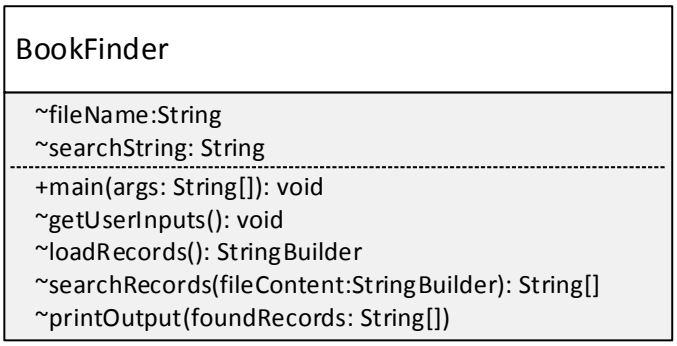

Figure 5: Class diagram

Member variable or method	Description
fileName	Stores file name input by the user
searchString	Stores search string input by the user
main()	Gets the program started and invokes other methods
getUserInputs()	Asks the user to enter two inputs for file name and search string
loadRecords()	Reads the file and returns a StringBuilder loaded with records
searchRecords()	Searches for rows that have search string, and returns an array of those rows
printOutput()	Prints the output as shown in the sample screenshots above.

You may find following String methods helpful. Feel free to explore other options.

- String.contains
- String.toLowerCase() or String.toUpperCase
- String.split
- StringBuilder.append