CS 120 Project 5

Due Wednesday March 29
Project 5

• Implement the methods find, findLeft and findRight in the StringFind class. Do not change the main method. Your implementation of findLeft and findRight must use find. For this project the comparison of characters is case sensitive. The only string functions you can use are length and charAt.
import java.io.*;
import java.util.*;

public class StringFind {

    public static boolean find(String s1, String s2, int start) {
        //return true if s2 is found in s1 beginning at position start
        //otherwise return false
    }

    public static int findLeft(String s1, String s2) {
        //if s2 is found in s1 return the leftmost position of s2 in s1
        //otherwise return -1
    }

    public static int findRight(String s1, String s2) {
        //if s2 is found in s1 return the rightmost position of s2 in s1
        //otherwise return -1
    }
}
public static void main(String args[]) {
    //DO NOT CHANGE MAIN
    int indexLeft;
    int indexRight;
    String s1;
    String s2;
    Scanner s = new Scanner(System.in);
    System.out.println("Enter a line to be searched");
    s1 = s.nextLine();
    System.out.println("Enter a search string (on a line) or an empty line to quit");
    s2 = s.nextLine();
}
while (!s2.equals("")) {
    indexLeft = findLeft(s1, s2);
    indexRight = findRight(s1, s2);
    if (indexLeft == -1) {
        System.out.printf("%s was not found\n", s2);
    } else {
        System.out.printf("The left most occurrence of %s begins at %d\n", s2, indexLeft);
        System.out.printf("The right most occurrence of %s begins at %d\n", s2, indexRight);
    }
    System.out.println("Enter a search string (on a line) or an empty line to quit");
    s2 = s.nextLine();
}
Enter a line to be searched
\textbf{abc def ghi abcdefghi abc xyz defg}
Enter a search string (on a line) or an empty line to quit
\textbf{abc}
The left most occurrence of abc begins at 0
The right most occurrence of abc begins at 22
Enter a search string (on a line) or an empty line to quit
\textbf{hi a}
The left most occurrence of hi a begins at 9
The right most occurrence of hi a begins at 19
Enter a search string (on a line) or an empty line to quit
\textbf{wxyz}
wxyz was not found
Enter a search string (on a line) or an empty line to quit
\textbf{def}
The left most occurrence of def begins at 4
The right most occurrence of def begins at 30
Enter a search string (on a line) or an empty line to quit
\textbf{dEF}
dEF was not found
Enter a search string (on a line) or an empty line to quit
Project 5 Requirements

- You must write the code yourself

- The name of the class must be **StringFind** and the file containing your program must be called **StringFind.java**. Remember java is case sensitive.

- Include a comment describing the purpose of the program. The comment should include your name.

- You can ask questions of your classmates but you **MUST NOT** share code. If you have a question it is usually better to ask me.

- Use meaningful **variable names and proper indentation**.
Project 5 Submission

- Upload one zip file to Canvas. The zip file must contain only one file called StringFind.java.

- The project is worth 30 points. The project must be submitted on time.