COMP 1409 Lab 8a

This lab involves working with methods from the String class and getting user input from the keyboard. To get user input, put this class in your project.

```java
import java.util.Scanner;

/**
 * Class InputReader reads user input from the keyboard.
 * @version    2009.10.25
 * @author     Colleen Penrowley
 */
public class InputReader
{
    private Scanner scanner;

    /**
     * Create a new InputReader to read user input.
     */
    public InputReader()
    {
        scanner = new Scanner(System.in); // for keyboard input
    }

    /**
     * @return the user's input as a String
     */
    public String getInput()
    {
        return scanner.nextLine();
    }
}
```

Create a second class called **StringPlay** that has a field of type **InputReader**. In this class you will write a method that does these things:

● asks the user to type something (and reads it in)
● displays what the user typed
● reports how many letters are in what the user typed
● displays what the user typed in all upper case
● displays what the user typed in all lower case

This method must call methods of the String class.

Here's how to get started.

```
public class StringPlay
{
    private InputReader reader;

    public StringPlay()
    {
        reader = new InputReader();
    }
```

Now write a method that uses reader to get keyboard input by calling the getInput() method. Here's how to get started.

```
public void playWithStrings()
{
    System.out.print("Type a sentence: ");
    String userInput = reader.getInput();
// you do the rest
```

Here's an example of what might be on the screen. The part in blue is the prompt to the user. The part in red is what the user has typed.

```
Type a sentence: What sort of sentence?
You typed: What sort of sentence?
Your sentence has 22 letters.
Here it is uppercase: WHAT SORT OF SENTENCE?
Here it is lowercase: what sort of sentence?
```

Write a second method with this signature:

```
public void compareStrings()
```

This method will prompt the user to type two strings and will put them into different String variables. Then it will compare those strings to see if they are the same, i.e. have the same letters in the same order. If the strings are the same, "same" will be displayed on the screen. If they are different, "different" will be displayed. To compare two String objects you must use the equals() method of the String class.

Create a driver class Lab6Driver that test the program functions.

Upload your completed lab to the dropbox before the cutoff time. A suggested solution will be given during the next class and labs that have not been uploaded will not receive any points.