CS1050 – Prelab 8

Spring 2019

Concepts to Practice

- Characters
- Strings
- Standard Library functions for characters

Description

For the prelab assignment, you need to implement a program takes pre-defined test data and uses that data to test several functions. The functions you will write are essentially string versions of some of the Standard C Library's character functions.

The main() function in your program is provided as the file main.c. You should download this file. You should create a separate file called stringfunc.c and compile the two together as shown in the example in order to test your code. Note that you should include the correct header file(s) in stringfunc.c so you will have the prototype(s) you need.

You can use any of the Standard C Library functions that take a character as an argument. You can also use printf (as shown in the main.c that is provided). You should not need any other Standard C Library functions.

Functions You Must Write

You may write any functions you wish to implement this program, in **addition** to the following functions. However, you **must** implement the following functions, and they must be prototyped as shown:

- **int IsDigit(char * s)** – This function returns 1 if all of the characters in the string s are digits. Otherwise, it returns 0.
- **int IsLower(char * s)** – This function returns 1 if all of the characters in the string s are lower case. Otherwise, it returns 0.
- **void ToLower(char * s)** – This function takes a string and converts it to the lowercase equivalent.
- **int main(void)** – Just use the main that is included.

How to Compile and Link

When you have downloaded main.c and created stringfunc.c, compile the two as follows:

compile main.c stringfunc.c

At this point (if you have no errors), you can run the program as usual:

./a.out

Sample Output

```
JimR@JimRArea51:~$ compile main.c stringfunc.c
JimR@JimRArea51:~$ ./a.out
DIGITTEST1 is not all digits
The lower case version of LOWERTEST1 is: hifromjimries
LOWERTEST2 is all lower case: jimrieswashere
```