CSE108 – Computer Programming Laboratory
Spring 2022, Lab 7 - A

<u>This lab will be graded on a scale of 100. No collaboration is permitted.</u>

<u>No partial credits for Part 2 and Part 3.</u>

<u>0, 20, and 50 pts will be given as credits for Part 1.</u>

<u>You have 80 minutes.</u>

Part 1 (50pts)

void alphabeticSort(char arr[][MAX_LEN], int n);

Implement the function given above which takes an array of strings and the number of strings as parameters and displays the strings as they are sorted alphabetically (Example output is Figure 1).

You can use string library functions such as strcmp, strcpy, etc. Here are some examples of strcmp return values. You should either be careful about the given cases below or just try to find out the strcmp function by experiencing it yourself.

strcmp("a",	"a");	//	returns	0	as	ASCII	value	of	"a"	and	"a"	are	same	i.e	97
strcmp("a",	"b");	//	returns	-1	as	ASCII	value	of	"a"	(97)	is	less	than	"b"	(98)
strcmp("a",	"c");	//	returns	-1	as	ASCII	value	of	"a"	(97)	is	less	than	"c"	(99)
strcmp("z",	"d");	//	returns	1	as	ASCII	value	of	"z"	(122)	is	greater	than	"d"	(100)
strcmp("abc",	"abe");	//	returns	-1	as	ASCII	value	of	"c"	(99)	is	less	than	"e"	(101)

strcmp("apples", "apple"); // returns 1 as ASCII value of "s" (115) is greater than "\0"

strcmp("Apple", "apple"); // returns -1 as ASCII value of "s" (65) is greater than "a" (97)

Part 2 (40pts)

void generateTagParser(char temp [], char arr[]);

Implement the function given above which takes two arrays as parameters and generates the tags on the words. You should use the temporary array to do copying operations. The second parameter is the original string taken from the user.

Words less than five characters long are bracketed with << >> , words five to ten letters long are bracketed with (* *) , and words over ten characters long are bracketed with /+ +/.

Here are some examples

Enter a string: tes

<<tes>>

Enter a string: test12345

test12345

Enter a string: test123456789

/+test123456789+/

Part 3 (10pts)

You should write function comments (Figure 2) and in-line for all reasonable lines of code. An example proper comment style is given below for function comment. You must fill in the blanks for your functions. Be careful about the arrays, they would be manipulated by the function even if the function return type is void! Also, you develop a menu for calling these functions properly.

Figure 1.

Figure 2.