

CS21 Lab 8, due 11/17/22

Please do not work alone on this. Use the "stack-based linkage convention" for all subroutines.

Write a subroutine that prompts for a string. Pass the address of the input buffer in \$a0, the size of the input buffer in \$a1 and the address of the prompt message in \$a2.

Write another subroutine that takes the two strings (in \$a0 and \$a1), and returns a value less than zero if the first string is lexicographically less than the second, zero if they are the same, and a value greater than zero if the first string is lexicographically greater than the second. Return that value in \$v0.

Write a third subroutine that just prints a string (passed in \$a0).

Write a main routine that declares `.space` buffers for the two strings (at least 100 bytes in length) and declares two different prompt messages and the three relationship messages. End the messages with newlines characters. Call the prompting routine twice, with the different prompts for the two strings. Print both strings, then call the comparison routine with the two strings. Last, print an appropriate message stating the first string is greater than, equal to or less than the second. Use the printing subroutine to print both of the entered strings and the message describing the relationship between the strings. End the program appropriately.