



Intro to Programming

COEN 10

Lab 9 – Word Manipulation



Lab 9 – Word Manipulation

- Your code will
 - Read words from the keyboard,
 - Place them in a string array,
 - Execute some tasks on the array



Lab 9 – Word Manipulation

- **Task 1:** Input up to 10 words
 - Keep track of the number of words
 - ^D will stop the input
 - Check the value returned by scanf
 - Insert the words in alphabetical order in the array, one by one
 - Use strcmp to find the right place and open a slot by shifting the other elements down
 - Show the words in the array



Lab 9 – Word Manipulation

- **Task 2: Reverse the array**
 - Swap the strings
 - Use strcpy and a temp array
 - Show the words in the array



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- **Task 3:** Convert all lowercase letters to uppercase letters
 - Use a **pointer** to traverse each string
 - Calculate the length as the strings are traversed (don't use strlen)
 - Fill up the **length array**
 - Use islower (), toupper ()
 - You may need to include a .h file
 - Show the words in the array



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- **Task 4:** Show the following info about the words
 - Shortest and longest words
 - Show the first shortest and the first longest
 - Use info in the length array
 - Average length of the words
 - Use info in the length array
 - Words starting with something other than a letter
 - Use `isalpha ()`



Lab 9 – Word Manipulation

- **Requirements**
 - Global variables
 - string array
 - length array
 - counter
 - Functions to
 - Input (scanf) and show
 - Reverse and show
 - Convert to uppercase and show
 - Calculate and show info
 - Output (printf) the array



Lab 9 – Word Manipulation

- Demo
 - Execute the program to the TA
 - Show the TA how the program handles
 - Input with less than 10 words
 - Input with 10 words
 - Input with more than 10 words
- Submit
 - Upload to Camino
 - Don't forget to put your name on it!



End

Lab 9