

COEN 10

Lab 10

Lab 10 – Word Manipulation

❖ Your code will

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

Lab 10 – 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

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❖ 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
- 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()`

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❖ Requirements

◆ Global variables

- string array
- length array
- counter

◆ Functions to

- Input and show
- Reverse and show
- Convert to uppercase and show
- Calculate and show info
- Output the array

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❖ Demo

- ◆ Execute the program on the terminal 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!