

Advanced Programming

COEN 11

Lab 4

Lab 4

Spreadsheet

- Change lab 3 to include a union
- Due in week 5

Lab 4

Adding to the functionality of Lab 3

- The spreadsheet is created interactively with the following commands
 - 1
 - Same as in lab3, include info to populate the union
 - 2, 3
 - Same as in lab 3, show extra info in the union
 - 4 <first name> <last t name>
 - Remove the item with the first and last names given
 - 5 <age>
 - Remove the items with the age given (new!)
 - 0
 - Quits

Lab 4

Requirements

- Main: loop forever accepting commands
 - Use a switch statement
- Do not allow names to repeat
 - Add a function to check for repetitions
 - The function returns zero or one
- 7 functions
 - main, insert, show, show_age, remove_name, remove_age (new!), check_duplicate
- List mechanism, same
 - Your list should stay in alphabetical order
 - Always insert a new entry at the right spot, shift down to make space
 - Always shift entries up after removing one

Lab 4

More requirements

- Global variables
 - array of structs
 - counter
- Structs will contain a union that has the following extra info according to the age: (new!)
 - Age ≤ 18 , name of the school, string
 - $18 < \text{Age} < 65$, salary, float
 - Age ≥ 65 , years of retirement, int
- Use a struct pointer to traverse the array in each function

Lab 4

Grading

- Pre-lab
 - Pseudo-code of the delete_age function – 10%
- In the lab
 - Demo to the TA – 30%
 - Submit your code to Camino – 60%