

# Advanced Programming

## COEN 11

### Lab 3

# Lab3

## Spreadsheet

- Change lab 2 to use an array of structures
- Due in week 4

# Lab3

## Adding to the functionality of Lab 2

- The spreadsheet is created interactively with the following commands
  - 1
    - Insertion is now in alphabetical order by last name
  - 2, 3
    - Same as in lab 2 (order is now alphabetical)
  - 4 <first name> <last t name>
    - Remove the item with the first and last names given
  - 0
    - Quits

# Lab3

## 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
- 6 functions
  - main, insert, show, show\_age, remove, 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

# Lab3

## More requirements

- Global variables
  - array of structs
  - counter
- Use a struct pointer to traverse the array in each function

# Lab 3

## Grading

- Pre-lab

- Pseudo-code of the insert function – 10%

- In the lab

- Demo to the TA – 30%
- Submit your code to Camino – 60%