



# Advanced Programming

## COEN 11

### Lab 4



# Lab 4

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- List of tasks
  - Use an **array of structs**
  - Use a pointer to traverse the array in **list** and **listbytime** functions
  - Include an option to delete tasks at a specified hour
  - Due in week 4



# Lab 4

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- Adding to the functionality of Lab 3
  - The list is created interactively with the following commands
    - 1 <task> <hour> <min>
      - Same as lab 3
    - 2, 3
      - Same as in lab 3
    - 4 <task>
      - Same as in lab 3
    - 5 <hour>
      - Delete tasks at the specified hour
    - 0
      - Quits



# Requirements

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- 7 functions
  - main, insert, list, listbytime, delete, deletebyhour, check\_duplicate
- All functions need to be changed to use the array of structs
- Functions **list** and **listbytime** need to use a pointer in the traversal
- Function **deletebyhour** should stop the traversal when the hour is greater than the hour specified by the user



# More Requirements

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- 2 global variables
  - 1 array of structs
  - counter
- Show hour and minutes as x:xx
  - Use `%d:%02d`
- List mechanism, same
  - Your list should stay in order by the time (hour,min)
    - Always insert a new entry at the right spot, shift down to make space
    - Always shift entries up when deleting tasks



# Grading

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- Pre-lab
  - Pseudocode for the **deletebyhour** function – 10%
- In the lab
  - Demo to the TA – 30%
  - Submit your code to Camino – 60%