



# Advanced Programming

## COEN 11

### Lab 9



## Lab 9

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- List of tasks with File I/O
- Extension of lab 8
  - Add **new list function** to **show** each list backwards.  
Must do it **recursively**.
  - Change **delete\_all function** to do it **recursively**
- Due in week 8



# Menu

- 1 <task> <prio> <hour> <min> <extra info according to the hour>
  - Same as lab 8
- 2, 3
  - Same as lab 8
- 4 <task>
  - Same as lab 8
- 5
  - New, show the tasks in each list backwards, use a **recursive function**
- 0
  - Same as lab 8, but the delete\_all must be recursive



# Requirements

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- New list\_backwards function
  - Need two functions, one to traverse the array and call the recursive function for each list
- Change delete\_all function
  - Need two functions, one to traverse the array and call the recursive function for each list



# More Requirements

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- Create a directory for this lab
- Split your code you developed for lab 8 into 3 files
  - `main.c`, `list.c`, `files.c`
- Create a `list.h` file for the definitions and global variables
  - Include (`#include`) the `list.h` file in each `.c` file
  - The file containing function `main` should also declare and initialize the global variables.



# More Requirements

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- Change the **makefile** accordingly to help in the compilation process
- Use the command **make** to run the makefile



# Grading

- Pre-lab
  - Pseudocode for the **list\_backwards** recursive function
  - 10%
- In the lab
  - Demo to the TA – 30%
    - Show the TA your **makefile** and run the command **make**.
    - Show the TA that your new project executable works.
    - Show the TA that the new features work
  - Submit your code to Camino – 60%
    - Zip all the **.c**, **.h** and **makefile** files