



# Advanced Programming

## COEN 11

Lab 5



# Lab 5

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- Surf School Waiting List
  - Using a linked list
    - Each node has a name and the number of people in the group



# Lab 5

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- Extend lab 3
  - Same options
    - 1, 2, 3, 4, 0 → same interface and functionality
  - Attention: do not work on lab 4. Go back to lab 3.



# Lab 5

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- Do not allow names to repeat
  - Check the list before inserting
- Keep your list in the oldest-to-newest order
  - Always insert a new entry at the end
  - Use a tail pointer pointing to the last node
- To delete
  - Keep traversing the list while there is space
  - Rearrange the list every time a node is removed
- To search and show
  - Traverse the list using the pointers



# Lab 5

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- Requirements
  - 1 linked list
    - 2 global variables: **head** and **tail**
  - 6 functions:
    - main, insert, delete, show, search\_size, check\_duplicate



# Lab 5

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- To receive full credit
  - Pre-lab
    - Cases for insert and delete
  - Demo
    - Show the TA
      - insert 4 items
      - delete the one in the **middle**, the **first**, and the **last**
      - delete the nodes left, until it's empty
      - Delete a non-existing node
      - insert one more
      - quit
  - Submit to Camino