

### **Advanced Programming COEN 11**

Lab 5



## Lab 5

- Restaurant Reservations, Waiting List
  - Using a linked list
    - Each node has a name and the number of people in the group



## Lab 5

- 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

- 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 the pointers



# Lab 5

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



## Lab 5

- To receive full credit
  - Pre-lab (10%)
    - Cases for insert and delete
  - Demo (30%)
    - Show the TA

      - insert 4 itemsdelete 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 (60%)

