



#### 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 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
  - Submit to Camino (60%)