Advanced Programming
COEN 11

Lab 5

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- ❑ Restaurant Waiting List
  - ➢ Using a linked list
    - • Each node has a reservation name and the number of people in the group

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- ❑ The waiting list is created interactively with the following commands
  - ➢ 1 name number – insert a node with the name and number of people specified
  - ➢ 2 size – extract (show and delete) oldest node with a number <= size (or the maximum one <= size)
  - ➢ 3 – print the list, name and number, from oldest to newest
  - ➢ 4 – quit

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
  - ➢ A tail pointer pointing to the last node makes it more efficient
- ❑ To list
  - ➢ Traverse the list using the the pointers

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❑ **Requirements**
  ➢ 1 linked list
  ➢ 4 functions: main, insert, search, list

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❑ **To receive full credit**
  ➢ Demo
    • Show the TA
      – insert (3 items)
      – search (one existing and one non-existing elements)
      – list
      – quit
  ➢ Submit a hardcopy
  ➢ Send your code by email to the TA