Advanced Programming

COEN 11, Fall 2014

Lab 3

Restaurant Waiting List

- ✓ Change lab 2 to use an array of structures
- ✓ Chance all variables to local
- ✓ Due in week 3

Same functionality as Lab 2

The waiting list is created interactively with the following commands

>1 <name> <number>
//Adds the name and number of people specified to the bottom of the list
>2 <size>
//Show and delete oldest entry which fits the size of the table (number is less than or equal to the table size)
>3
//Shows the list, name and number, from oldest to newest
>4
//Quits

Requirements

- ✓ Same requirements as Lab 2
  - Loop forever accepting commands
  - 3 functions
    - insert, delete, and show
  - Do not allow names to repeat
  - List mechanism. Your list should stay in the oldest-to-newest order
    - Always insert a new entry at the bottom
    - Always shift entries up after deleting one
- ✓ Additional New requirements
  - Save each reservation in a structure named customer
  - Local variables: array of structures and a counter
  - Function declarations:

```
void insert(struct customer *party, int *counter);
//inserts a new customer and increments the counter
//parameters a pointer to an array of customer and call by
//reference parameter counter
void delete(struct customer *, int *counter);
```

```
//deletes the customer that is assigned to a table and
//decrements the counter, parameters a pointer to an array
//of customer and a call by reference counter
void show(struct customer *, int counter);
//shows the content of the array of customer and call by
//value counter that holds the number of customers waiting
```

Use a struct pointer to traverse the array in each function

Note: check your indentation (for full credit)