Advanced Programming COEN 11

Lab 4

Lab 4

Surf School Waiting List

- Change lab 3 to use an array of structs with unions
  - Include an union in your struct

Lab 4

- Extra information
  - Name
  - Size
  - Max_age will be
    - 1 – if there is a minor (< 18)
      » ask for parent or guardian phone number
    - 2 – if there is a senior (>65)
      » ask for age of youngest in group
    - None of the above
      » ask for average age of group
  - Extra info, depends on max_age
    - 1– phone of an adult, string
    - 2– min age, integer
    - Neither 1 nor 2 – Average age of group, float

Lab 4

- Menu -- commands
  - 1
    - Include age category and extra info
  - 2, same
  - 3
    - Need to add ages and extra info
  - 4, same
  - 0, same

Obs: You don't need to change option 2 (delete) unless you are not copying the whole structure when shifting, but copying the string and the number separately. You can copy the structure using '='

Lab 4

- Your program has 1 array of structures
  - Each struct has four members
    - name – char array (string)
    - size – integer
    - max_age– integer
    - extra_info – union (type depends on max_age)
      - Each union has three members
        - » String - phone of an adult
        - » Integer - age of youngest in the group
        - » Float - average age of group

Lab 4

- Requirements
  - 1 array of structures
    - one of the members in the struct is a union
  - Global variables
    - Array and counter **ONLY**!
    - No other global variable is allowed. Points will be taken from your code otherwise.
  - 5 functions, same
    - main, insert, delete, show, check_size, check_duplicate

Lab 4

- Programming best practices
  - Use indentation and alignment to make clear which statements are inside a function, conditional or loop.
  - Declare local variables at the beginning of a function, not in the middle.
  - Do not declare variables as global unless it is absolutely necessary (only the ones I allow you to).
  - Use meaningful names for variable, structures, constants and functions
  - Use comments in your code, but do not comment the obvious.

Lab 4

- No pre-lab this week

End

Lab 4