

Advanced Programming

COEN 11, Fall 2014

Lab 4: Struct -Union

Create a program that keeps information about people.

- ✓ People List - information
 - Name
 - Age
 - Status
 - if Age ≤ 21 - name of school
 - if $21 < \text{Age} < 65$ - salary per month
 - if Age ≥ 65 - years of retirement
- ✓ People List - commands
 - 1 – to input a person
Name, Age, Status
 - 2 – to delete a person
Name
 - 3 – to show the current list of info
 - 4 – to quit
- ✓ Your program has 1 array of structures
Each struct has three members
 - name - char array
 - age - int
 - status - union (type depends on age)
Each union has three members
 - » school name (age ≤ 21) – char array
 - » salary per month ($21 < \text{age} < 65$) - float
 - » year of retirement (age ≥ 65) – int
- ✓ Your program keeps a counter, which indicates how many elements are in the list.
According to the command, the program
 - 1 – insert an element at the position indicated by counter (at the end) and increase the counter
 - 2 – delete the element with the given name to keep all the elements together, copy the last one to the deleted one and decrease the counter
 - 3 – show all the elements, from position zero to counter-1
 - 4 - quit

Requirements

- 1 array of structures, one of the members (status) in the struct is a union
- 4 functions: **main**, **insert**, **delete**, **show**
- Use global array and counter

Extra Points [2pts]

- Use of local array and counter (functions have parameters)