LAB 2 CSE 4304  
SWE B

27-04-2021

1. Use the code for the last lab task 4 where you stored age of few students in an array. Create four user defined functions to perform the following tasks:
   1. Function1:
      1. Displays all the content of the array.
      2. Takes one parameter, which indicates the address of the first element of the array.
      3. Returns nothing
   2. Function2:
      1. Updates the age of an specific student.
      2. Takes two parameters. First one is the address of the first element of the array, second parameter indicates the index(0 indexed) of the array where the values need to be modified.  
         (Validate the index whether it is a valid index inside the array or not)
      3. Returns an integer. It returns 0 if successfully updated the value else return -1
   3. Function3:
      1. Sorts the age of the array in ascending order.
      2. Takes two parameters. First one is the address of the first element of the array and second parameter indicates, how many student’s information are stored in the array.
      3. Returns 0 if successful, else returns -1.
   4. Function4:
      1. Uses binary search to find the index of the array for a given age.
      2. Takes three parameters. First parameter is the address of the first element. Second parameter is an integer which indicates the age you are searching for. Third parameter indicates how many student’s information is stored.
      3. Returns the index of the array where the searching element is found. If not not found, returns -1.

Help:

* sizeof operator returns the size of allocated memory (in Bytes) for a particular variable or a variable type.
* Example:

int x;

int ar[20];

sizeof (x) will return 4 (number of Bytes for an integer)

sizeof (int) will also return 4

sizeof (ar) will return 80 (total bytes allocated for ar)

* NB: the parenthesis is optional for variable names.