

CS 2103

Assignment in Data Structures # 5

(**insertSorted()** and **delAllOccurrences()** on Array Implementation V4)

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Submitted to:

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With the structure definitions of:

#define SIZE 10

typedef struct{

char FN[24], LN[16], MI;

char course[5];

int yearlevel, idNumber;

}\*studentRecord, studRec;

typedef struct{

studentRecord S;

int last; /\*index of the last element\*/

}\*LIST, lType;

**insertSorted()**

void insertSorted(LIST \*L, studRec S)

{

int i;

if((\*L)->last<SIZE-1){

for(i=0;i<=(\*L)->last && (\*L)->S[i].idNumber<S.idNumber;i++){}

if((\*L)->S[i].idNumber!=S.idNumber){

memcpy((\*L)->S+i+1,(\*L)->S+i, sizeof(studRec)\*((\*L)->last-i+1));

(\*L)->S[i]=S;

(\*L)->last++;

}

}

}

**delAllOccurences()**

void deleteAllOccurrences(LIST \*L, char x[])

{

int i;

if((\*L)->last!=-1){

for(i=0;i<=(\*L)->last;){

if((strcmp((\*L)->S[i].LN, x))==0){

memcpy((\*L)->S+i,(\*L)->S+i+1, sizeof(studRec)\*((\*L)->last-i));

(\*L)->last--;

}else{

i++;

}

}

}

}

Reflection:

I didn’t have that much of a hard time on taking this assignment up considering that we have discussed this last semester. Though I have troubles in the memcpy(), I directly asked help from an upperclassman, Patricia, and she directly helped me in this code. It is pretty easy actually, it is just a bit of a modification from the past versions of Array Implementations.