

CSE108 – Computer Programming Laboratory

Spring 2022, Final Lab

This lab will be graded on a scale of 100. No collaboration is permitted.

You have 80 minutes.

In this lab, you will create a simple application in order to help a seller to register the sold item.

Each item has its auto-increment id, name and price. Also, the seller must register the contact information such as phone number or email of the customer.

You may need to fill the structures with the properties as described above.

typedef struct { } item_t;	typedef union { } contactInfo_t;	typedef struct { } itemWithCont_t;
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All items will be saved into a non-text file by opening and writing it in **binary mode**.

```
#define NUMOFITEMS 2

#define FILENAME "Lab11_data.bin"

/* Getting items from the user */
item_t *getItems(item_t *items, int size);

/* Printing items and its all properties*/
void printItem(item_t item);

/* Writing items into a binary file*/
int writeItems(char filename[], item_t *items, int size);

/* Reading an item from a binary file*/
item_t readAnItem(FILE *file);

/* Adding contact information for the items by item name*/
void contactInfoAdder (item_t *items, int size, itemWithCont_t contacts[]);

/* Printing items with contact information*/
void printItemWithContactInfo(itemWithCont_t itemsWithCont);

void flushInputBuffer();

void
flushInputBuffer()
{
char tmp;
do
scanf("%c",&tmp);
while(tmp!='\n');
}
```

Here is the example output with 2 number of items executed 2 iterations.

```
Id =>1
Name => tv
Price =>1000
Id =>2
Name => phone
Price =>2000
Printing....
Id: 1
Name: tv
Price: 1000.00
Id: 2
Name: phone
Price: 2000.00
Succesfully wrote data to file
Id =>3
Name=> fridge
Price =>5000
Id =>4
Name => furniture
Price =>10000
Printing....
Id: 3
Name: fridge
Price: 5000.00
Id: 4
Name: furniture
Price: 10000.00
Succesfully wrote data to file
```

Reading from file:

```
Id: 1
Name: tv
Price: 1000.00
Id: 2
Name: phone
Price: 2000.00
Id: 3
Name: fridge
Price: 5000.00
Id: 4
Name: furniture
Price: 10000.00
```

```
Enter the phone for tv => 5361234567
Enter a mail for tv => test@gmail.com
Enter the phone for phone => 5361234567
Enter a mail for phone => test@gmail.com
Enter the phone for fridge => 5361234567
Enter a mail for fridge => test@gmail.com
Enter the phone for furniture => 5361234567
Enter a mail for furniture => test@gmail.com
```

Printing with contact information....

```
Id: 1
Name: tv
Price: 5000.00
Phone number: 5361234567
Mail: test@gmail.com
Id: 2
Name: furniture
Price: 10000.00
Phone number: 5361234567
Mail: test@gmail.com
Id: 3
Name: fridge
Price: 5000.00
Phone number: 5361234567
Mail: test@gmail.com
Id: 4
Name: furniture
Price: 10000.00
Phone number: 5361234567
Mail: test@gmail.com
```