

CT103: Week 18 Lab Session (13/02/2024)

*Note: This assignment will count towards your final grade. Make sure you submit your solution by following the “**Submission Instructions**” at the end of this document. You have **until midnight tonight to submit your solution on Canvas.***

Late assignment submissions will receive a penalty.

Please make sure you **write comments** explaining what your code does. Start your C program with a **comment stating your; Name, Student ID and Date.**

You are given the following C Code:

```
typedef struct{
    int day, month, year;
} date;

typedef struct{
    char name[50];
    int accountNumber;
    double balance;
    date lastTrans;
} customer;

void getCustomerName(customer* cptr);
void getAccountNumber(customer* cptr);
void getLastTransDate(customer* cptr);
void getBalance(customer* cptr);
void printCustomer(customer* cptr);

void main(){
    int i;
    char temp[100];
    customer customers[3];

    for (i = 0; i < 3; i++){
        getCustomerName(&customers[i]);
        getAccountNumber(&customers[i]);
        getLastTransDate(&customers[i]);
        getBalance(&customers[i]);
        gets_s(temp, 100);
        printf("\n");
    }

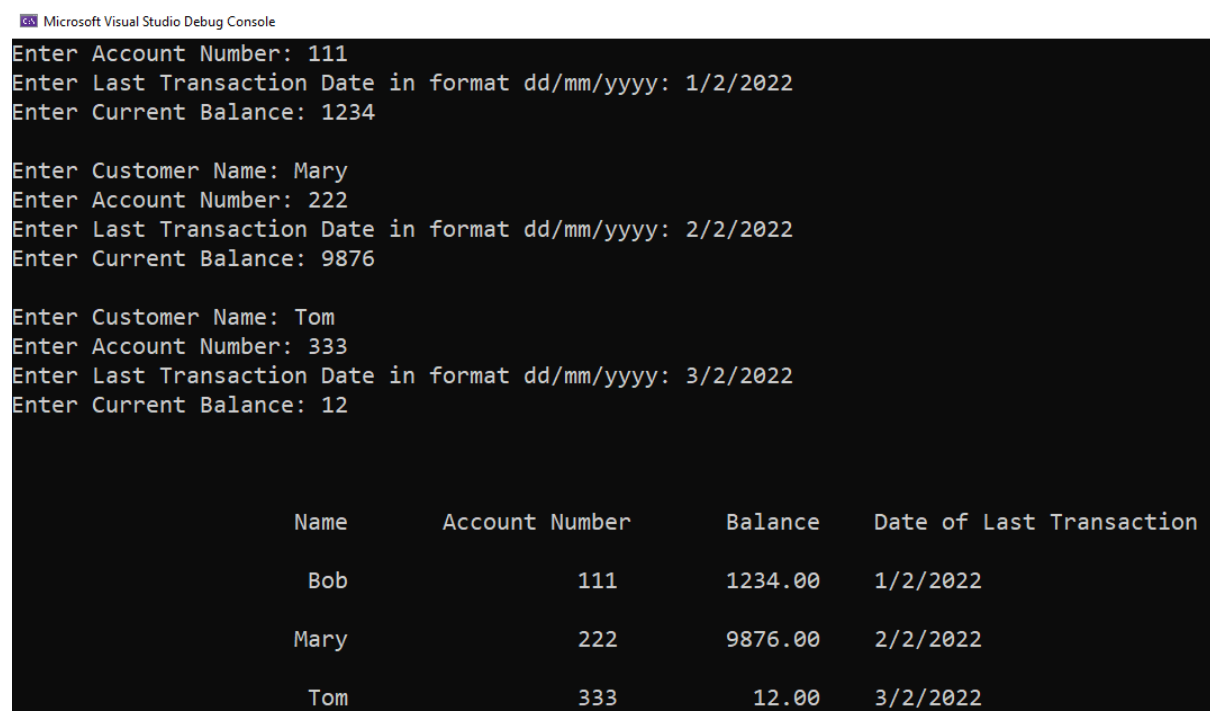
    printf("\n\n%25s\t%13s\t%12s\t%s\n\n", "Name", "Account Number",
"Balance", "Date of Last Transaction");

    for (i = 0; i < 3; i++){
        printCustomer(&customers[i]);
    }
}
```

Finish this C program by writing the missing functions based on the function prototypes given. Include screenshots showing your code working.

1. `void` `getCustomerName(customer* cptr);` (20 marks)
2. `void` `getAccountNumber(customer* cptr);` (20 marks)
3. `void` `getLastTransDate(customer* cptr);` (20 marks)
4. `void` `getBalance(customer* cptr);` (20 marks)
5. `void` `printCustomer(customer* cptr);` (20 marks)

Your program should output something similar to the following screenshot. You must **upload a screenshot** showing your program working.



The screenshot shows the Microsoft Visual Studio Debug Console with the following text:

```
Enter Account Number: 111
Enter Last Transaction Date in format dd/mm/yyyy: 1/2/2022
Enter Current Balance: 1234

Enter Customer Name: Mary
Enter Account Number: 222
Enter Last Transaction Date in format dd/mm/yyyy: 2/2/2022
Enter Current Balance: 9876

Enter Customer Name: Tom
Enter Account Number: 333
Enter Last Transaction Date in format dd/mm/yyyy: 3/2/2022
Enter Current Balance: 12
```

Name	Account Number	Balance	Date of Last Transaction
Bob	111	1234.00	1/2/2022
Mary	222	9876.00	2/2/2022
Tom	333	12.00	3/2/2022

Figure 1: Code Output

Plagiarism Notice:

A definition of plagiarism is passing off the work of another person as one's own.

You are allowed to ask the lab tutors for help, collaborate with your classmates and review online and print resources for high-level problem solving and background research. You are each expected to complete this assignment individually. This means that every line of code and comment in your submission should be written by you alone. Please see the University of Galway Code of Practice for Dealing with Plagiarism for further information on plagiarism:

<https://www.universityofgalway.ie/media/registrar/policiesmay2023/QA220-Academic-Integrity-Policy-v2.0-Sept-2023.pdf>

Plagiarism is a serious academic offence and may lead to a loss of some or all marks and/or disciplinary proceedings if it is detected in any of your submissions. Students who facilitate others to copy their work are also subject to plagiarism sanctions (including loss of marks), so you should not share your assignment solutions with classmates.

Submission Instructions:

Please do the following to submit your solutions to the assignment.

- Copy and paste your code into a word document labelled 'AssignmentX_YOURNAME_ID.doc', e.g. 'Assignment7_JoeBloggs_123456789.doc'.
- Make sure to **include screenshots of your code working** in the .doc file. Use: 'Windows' + 'Shift' + 'S' on your keyboard. On a Mac, you should use the keys: 'shift' + 'command' + '3' or 'shift' + 'command' + '4'.
- Add both: **your .c program and your .doc files** to a folder called 'AssignmentX_YOURNAME_ID_Submission'.
- Zip the folder up and **submit the .zip file on Canvas** under CT103 Assessments. To zip the folder, right click and press 'Send To' then 'Compressed (zipped) folder'. On Mac, right click the folder and press 'Compress'.
- If for some reason you still cannot access Canvas. Send your .zip folder to the lab instructors by email. They will be available for the duration of the lab.