

<Customer Billing System>

SACHIN KUMAR:RA2111026010118

YASWANTH KUMAR: RA21110260123

NIHITH PENUMUCHU: RA2111026010124

LIKITH BHARADWAJ:RA2111026010144

Branch: CSE w/s AI & ML

Section : T1

Batch No:02

Lab Instructor name: Dr. M. Shobana ma'am



SRM
INSTITUTE OF SCIENCE & TECHNOLOGY
Deemed to be University u/s 3 of UGC Act, 1956

Table of contents

- Introduction
- Objectives
- Algorithm
- Flowchart
- Modules
- Results and Discussion
- Snapshots of the result
- Sample Coding



SRM

INSTITUTE OF SCIENCE & TECHNOLOGY
Deemed to be University u/s 3 of UGC Act, 1956

Customer Billing System

Introduction:

Customer Billing System Project is a simple console application designed to demonstrate the practical use of C programming language and its features as well as to generate an application which can be used in any departmental store, shops, cafes etc. for billing to the customer.

You can use this application to keep the records such as name, address, mobile number, paid amount, due amount, payment date etc. of your regular customer. Moreover, if you have a new customer, you can add and edit the account at any time.



SRM

INSTITUTE OF SCIENCE & TECHNOLOGY
Deemed to be University u/s 3 of UGC Act, 1956

Objectives

The main objectives of this project are listed as follows:

- Proper management of customer billing system.
- Add and maintain customer detail.
- Can be useful for both manager and cashier.
- Maximum providence of search options.
- User friendly messages in the way for easy application of program.



ALGORITHM

Step 1 : Start

Step 2 : Display Main Menu as given below:

1. To Add Account on list
2. To Search Customer's Account
3. Exit

Step 3 : Get the input choice from the user

Choice 1 - Call the function to add account on list

Choice 2 - Call the function to search customer's account

Choice 3 - Call the function to exit the system

Step 4 : Output Generated is the text file

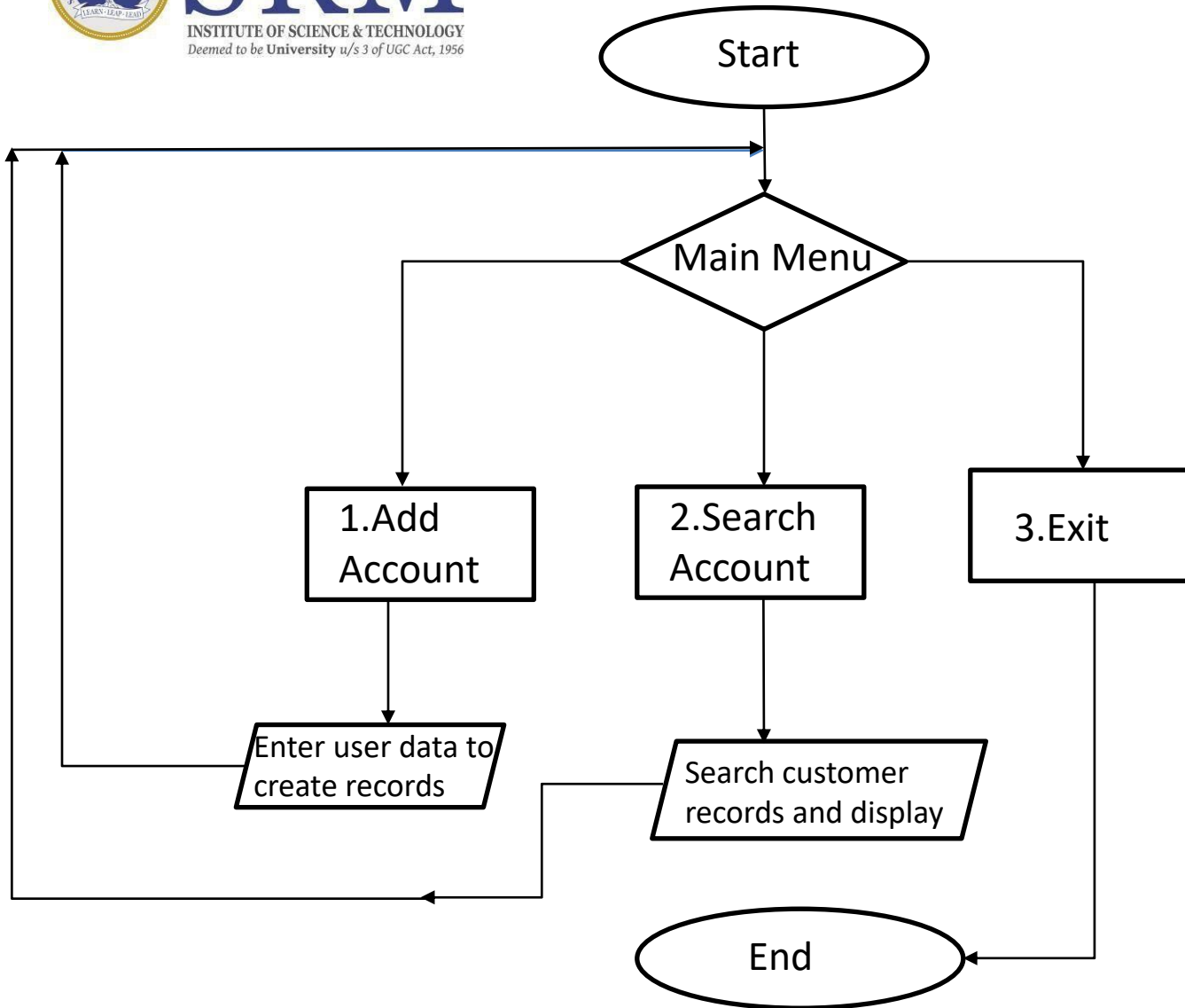
Step 5 : End



SRM

INSTITUTE OF SCIENCE & TECHNOLOGY
Deemed to be University u/s 3 of UGC Act, 1956

Flowchart





SRM

INSTITUTE OF SCIENCE & TECHNOLOGY
Deemed to be University u/s 3 of UGC Act, 1956

Modules

We will use 3 modules in this project. These are as follows:

Module 1: To add account

It can hold any number of accounts and account can be added to the program at any time.

The programming of simple calculations such as calculation of due amount, balance etc. have been embed in the code of project.

Module 2: To search account

The Customer Billing System project in C gives you the facility of searching the account by two ways, either by name of the customer or by the number of customer.

The due amount to be paid is shown as negative balance.

Module 3: To exit

If you have nothing to do with the program, you can directly exit from the main menu.



SRM

INSTITUTE OF SCIENCE & TECHNOLOGY
Deemed to be University u/s 3 of UGC Act, 1956

Results and Discussions

We have been able to design a Customer Billing System using C language. This system has features such as :

1. You can hold any number of accounts and account can be added to the program at any time.
2. The programming of simple calculations such as calculation of due amount, balance etc. have been embed in the code of project.
3. The due amount to be paid is shown as negative balance.
4. If you have nothing to do with the program, you can directly exit from the main menu.



SRM

INSTITUTE OF SCIENCE & TECHNOLOGY
Deemed to be University u/s 3 of UGC Act, 1956

Snapshots Of the results

Main Menu

```
"C:\Users\SACHIN KUMAR\Desktop\customer billing syatem by team trails\Customer Billing.exe"

A PROJECT BY Team TRAILS

                                WELCOME TO KTR SUPERMARKET
                                The Ultimate shopping place

CUSTOMER BILLING SYSTEM:

=====

1:   To Add Account on list
2:   To Search Customer's Account
3:   Exit

=====

select what do you want to do?
```



SRM

INSTITUTE OF SCIENCE & TECHNOLOGY
Deemed to be University u/s 3 of UGC Act, 1956

Snapshots Of the results

Choice 1:

```
"C:\Users\SACHIN KUMAR\Desktop\customer billing system by team trails\Customer Billing.exe"

A PROJECT BY Team TRAILS

                                WELCOME TO KTR SUPERMARKET
                                The Ultimate shopping place

CUSTOMER BILLING SYSTEM:

=====

1:  To Add Account on list
2:  To Search Customer's Account
3:  Exit

=====

select what do you want to do?1
how many customer accounts?
1

customer no:1
    Account number:230

    Name:sachin

    mobile no:7379410616
    Street:4
    City:delhi
    Previous balance:3640
    Current payment:3700
    Payment date(mm/dd/yyyy):10/01/2022
```



SRM

INSTITUTE OF SCIENCE & TECHNOLOGY
Deemed to be University u/s 3 of UGC Act, 1956

Snapshots Of the results

Choice 2:

```
"C:\Users\SACHIN KUMAR\Desktop\customer billing syatem by team trails\Customer Billing.exe"

A PROJECT BY Team TRAILS

                                WELCOME TO KTR SUPERMARKET
                                The Ultimate shopping place

                                CUSTOMER BILLING SYSTEM:

=====

1:   To Add Account on list
2:   To Search Customer's Account
3:   Exit

=====

select what do you want to do?search by what?

1 --- search by customer number
2 --- search by customer name

enter your choice:2
enter the name:sachin

Customer no      :1
Name             :sachin
Mobile no        :7379410432
Account number   :230
Street           :4
City             :delhi
Old balance      :3640.00
Current payment  :3700.00
New balance      : -60.00
Payment date     :10/1/2022

Account status   :DELINQUENT

another?(y/n)
```



SRM

INSTITUTE OF SCIENCE & TECHNOLOGY
Deemed to be University u/s 3 of UGC Act, 1956

Snapshots Of the results

Choice 3:

```
"C:\Users\SACHIN KUMAR\Desktop\customer billing syatem by team trails\Customer Billing.exe"

A PROJECT BY Team TRAILS

                                WELCOME TO KTR SUPERMARKET
                                The Ultimate shopping place

CUSTOMER BILLING SYSTEM:

=====

1:   To Add Account on list
2:   To Search Customer's Account
3:   Exit

=====

select what do you want to do?3

Thanks for visiting
This PROJECT is designed BY Team TRAILS
Process returned 1 (0x1)   execution time : 2.719 s
Press any key to continue.
```



SRM

INSTITUTE OF SCIENCE & TECHNOLOGY
Deemed to be University u/s 3 of UGC Act, 1956

Sample coding

```
Customer Billing.c - Code::Blocks 20.03
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help

Start here x Customer Billing.c x
1  #include<stdio.h>
2  #include<conio.h>
3  #include<stdlib.h>
4
5
6  void input();
7  void writefile();
8  void search();
9  void output();
10
11 struct date{
12     int month;
13     int day;
14     int year;
15 };
16
17 struct account {
18     int number;
19     char name[100];
20     int acct_no;
21     float mobile_no;
22     char street[100];
23     char city[100];
24     char acct_type;
25     float oldbalance;
26     float newbalance;
27     float payment;
28     struct date lastpayment;
29 }customer;
30 int tl,sl,ts;
31 int main()
32 {
33     int i,n;
34     char ch;
35     printf("\nA PROJECT BY Team TRAILS");
36     printf("\n\n");
37     printf("WELCOME TO KTR SUPERMARKET\n ");
38     printf("The Ultimate shopping place\n");
39     printf("\n\n          CUSTOMER BILLING SYSTEM:\n\n");
40     printf("===== \n");
41     printf("\n          1:   To Add Account on list\n");
42     printf("\n          2:   To Search Customer's Account\n");
43     printf("\n          3:   Exit\n");
44     printf("\n===== \n");
45     do{
46         printf("\nselect what do you want to do?");
47         ch=getche();
48     }while(ch<='0' || ch>'3');
49     switch(ch){
50         case '1':
51             printf("\nhow many customer accounts?");
52             scanf("%d",&n);
```

C:\Users\SACHIN KUMAR\Desktop\customer billing sytem by team trails\Customer Billing.c

C/C++

Windows (CR+LF)

WINDOWS-1252

Line 16, Col 1, Pos 205

Insert

Read/Write default





SRM

INSTITUTE OF SCIENCE & TECHNOLOGY
Deemed to be University u/s 3 of UGC Act, 1956

Sample coding

```
Customer Billing.c - Code::Blocks 20.03
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help

Start here x Customer Billing.c x
53     for(i=0;i<n;i++){
54         input();
55         if(customer.payment>0)
56             customer.acct_type=(customer.payment<0.1*customer.oldbalance)? 'O': 'D';
57         else
58             customer.acct_type=(customer.oldbalance>0)? 'D' : 'C';
59         customer.newbalance=customer.oldbalance - customer.payment;
60         writefile();
61     }
62     main();
63     case '2':
64
65         printf("search by what?\n");
66         printf("\n1 --- search by customer number\n");
67         printf("2 --- search by customer name\n");
68         search();
69         ch=getche();
70         main();
71     case '3':
72         printf("\n\nThanks for visiting \n This PROJECT is designed BY Team TRAILS");
73         exit(1);
74     }
75 }
76
77
78 void input()
79 {
80     FILE *fp=fopen("bills.txt", "rb");
81     fseek (fp,0,SEEK_END);
82     tl=ftell(fp);
83     sl=sizeof(customer);
84     ts=tl/sl;
85     fseek(fp, (ts-1)*sl,SEEK_SET);
86     fread(&customer,sizeof(customer),1,fp);
87     printf("\ncustomer no:%d\n",++customer.number);
88     fclose(fp);
89     printf("        Account number:");
90     scanf("%d",&customer.acct_no);
91     printf("\n        Name:");
92     scanf("%s",customer.name);
93     printf("\n        mobile no:");
94     scanf("%f",&customer.mobile_no);
95     printf("        Street:");
96     scanf("%s",customer.street);
97     printf("        City:");
98     scanf("%s",customer.city);
99     printf("        Previous balance:");
100    scanf("%f",&customer.oldbalance);
101    printf("        Current payment:");
102    scanf("%f",&customer.payment);
103    printf("        Payment date(mm/dd/yyyy):");
104    scanf("%d/%d/%d",&customer.lastpayment.month,&customer.lastpayment.day,&customer.lastpayment.year);
}
```



SRM

INSTITUTE OF SCIENCE & TECHNOLOGY
Deemed to be University u/s 3 of UGC Act, 1956

Sample coding

```
Customer Billing.c - Code::Blocks 20.03
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help

Start here x Customer Billing.c x
105     return;
106 }
107
108 void writefile()
109 {
110     FILE *fp;
111     fp=fopen("bills.txt", "ab");
112     fwrite(&customer, sizeof(customer), 1, fp);
113     fclose(fp);
114     return;
115 }
116
117 void search()
118 {
119     char ch;
120     char nam[100];
121     int n, i, m=1;
122     FILE *fp;
123     fp=fopen("bills.txt", "rb");
124     do{
125         printf("\nenter your choice:");
126         ch=getche();
127     }while(ch!='1' && ch!='2');
128     switch(ch){
129         case '1':
130             fseek(fp, 0, SEEK_END);
131             tl=ftell(fp);
132             sl=sizeof(customer);
133             ts=tl/sl;
134             do{
135                 printf("\nchoose customer number:");
136                 scanf("%d", &n);
137                 if(n<=0 || n>ts)
138                     printf("\nenter correct\n");
139                 else{
140                     fseek(fp, (n-1)*sl, SEEK_SET);
141                     fread(&customer, sl, 1, fp);
142                     output();
143                 }
144                 printf("\n\nagain? (y/n) ");
145                 ch=getche();
146             }while(ch=='y');
147             fclose(fp);
148             break;
149         case '2':
150             fseek(fp, 0, SEEK_END);
151             tl=ftell(fp);
152             sl=sizeof(customer);
153             ts=tl/sl;
154             fseek(fp, (ts-1)*sl, SEEK_SET);
155             fread(&customer, sizeof(customer), 1, fp);
156             n=customer.number;
```




SRM

INSTITUTE OF SCIENCE & TECHNOLOGY
Deemed to be University u/s 3 of UGC Act, 1956

Sample coding

```
*Customer Billing.c - Code::Blocks 20.03
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help

Start here x *Customer Billing.c x
157 do{
158     printf("\nenter the name:");
159     scanf("%s",nam);
160     fseek(fp,0,SEEK_SET);
161     for(i=1;i<=n;i++)
162     {
163         fread(&customer,sizeof(customer),1,fp);
164         if(strcmp(customer.name,nam)==0)
165         {
166             output();
167             m=0;
168             break;
169         }
170     }
171     if(m!=0)
172     printf("\n\ndoesn't exist\n");
173     printf("\nanother?(y/n)");
174     ch=getche();
175     while(ch=='y');
176     fclose(fp);
177 }
178 return;
179 }
180 void output()
181 {
182     printf("\n\n    Customer no      :%d\n",customer.number);
183     printf("    Name           :%s\n",customer.name);
184     printf("    Mobile no      :%.f\n",customer.mobile_no);
185     printf("    Account number :%d\n",customer.acct_no);
186     printf("    Street         :%s\n",customer.street);
187     printf("    City           :%s\n",customer.city);
188     printf("    Old balance    :%.2f\n",customer.oldbalance);
189     printf("    Current payment:%.2f\n",customer.payment);
190     printf("    New balance    :%.2f\n",customer.newbalance);
191     printf("    Payment date   :%d/%d/%d\n",customer.lastpayment.month,customer.lastpayment.day,customer.lastpayment.year);
192     printf("    Account status :");
193     switch(customer.acct_type)
194     {
195     case 'C':
196         printf("CURRENT\n\n");
197         break;
198     case 'O':
199         printf("OVERDUE\n\n");
200         break;
201     case 'D':
202         printf("DELINQUENT\n\n");
203         break;
204     default:
205         printf("ERROR\n\n");
206     }
207 }
208 return;
}
```




SRM
INSTITUTE OF SCIENCE & TECHNOLOGY
Deemed to be University u/s 3 of UGC Act, 1956

Thanks