

STATIONARY SHOP BILLING SYSTEM

ABSTRACT:

The C program facilitates a billing system for a stationary shop, offering features for customer account management and product purchase tracking. The system allows users to perform various operations, including calculating bills, searching customer accounts by number or name, and maintaining transaction records.

KEY FEATURES:

- **Product Listing:** Displays available products and their corresponding prices.
- **Customer Billing:** Enables the calculation of bills for purchased items, including the computation of total amounts, GST (Goods and Services Tax), and payment details.
- **Account Management:** Manages customer accounts, including details such as account number, name, address, and account balance.
- **File Handling:** Utilizes file operations to read and write customer data, maintaining records for efficient retrieval and modification.
- **Search Functionality:** Allows users to search for customer accounts either by account number or name, providing detailed information about the account status, transactions, and payment history.

EXECUTION FLOW:

- Upon program execution, it presents a menu offering options for billing calculation, customer account search, or program exit.
- The billing process involves inputting customer details, purchased items, quantities, and calculating the total bill including GST.
- Customer account information is stored in a file (`jpms.dat`), utilizing file operations to write and read data.
- Search functionality allows users to retrieve specific customer account details by account number or name, providing comprehensive information about the account status, transactions, and payment history.

CODE:

```
#include<stdio.h>
#include<conio.h>
#include<stdlib.h>
#include<string.h>

void input();
void writefile();
void search();
void output();
struct product
{
    char name[100];
    int price;
};
struct product c[5]={{"scale",10},{"rubber",5},{"small_note",25},{"long_note",35},{"pen",15}};
struct date{
    int month;
    int day;
    int year;
};

struct account {
    int number;
    char name[100];
    int acct_no;
    //int mobile_no;
    char street[100];
    char city[100];
```

```

char acct_type;
float oldbalance;
float newbalance;
float payment;
struct date lastpayment;
}customer;
int tl,sl,ts;
void main()
{
    int i,n;
    char ch;
    struct product c[5]={ {"scale",10},{ "rubber",5},{ "small_note",25},{ "long_note",35},{ "pen",15 } };
    //_setcursortype(_NOCURSOR);
    printf("          WELCOME TO MAR STATIONARY SHOP\n");
    printf("    products available in our company\n");
    printf("1. scale 10\n");
    printf("2. rubber 5\n");
    printf("3. small_note 25\n");
    printf("4. long_note 30\n");
    printf("5. pen 15\n");

    printf(" CUSTOMER BILLING SYSTEM:\n\n");
    printf("=====\n");
    printf("\n1:  to calculate bill on shopping\n");
    printf("2:  to search customer account\n");
    printf("3:  exit\n");
    printf("\n=====\n");
    do{
        printf("\nselect what do you want to do?");
        ch=getche();
    }while(ch<='0' || ch>'3');
    switch(ch){
        case '1':
            printf("\nhow many customer accounts?");
            scanf("%d",&n);
            for(i=0;i<n;i++){
                input();
                if(customer.payment>0)
                    customer.acct_type=(customer.payment<0.1*customer.oldbalance)? 'O': 'D';
                else
                    customer.acct_type=(customer.oldbalance>0)?'D' : 'C';
                customer.newbalance=customer.oldbalance + customer.payment;
                writefile();
            }
            main();
        case '2':
            printf("search by what?\n");
            printf("\n1 --- search by customer number\n");
            printf("2 --- search by customer name\n");
            search();
            ch=getche();
            main();
        case '3':
            exit(1);
    }
}

void input()
{
    int n,i,j;
    float gst=0.18,amt;

```

```

int pr[10],qt[100],sub[100],total=0;
char item[10][100];
FILE *fp=fopen("jpms.dat","rb+");
fseek (fp,0,SEEK_END);
tl=ftell(fp);
sl=sizeof(customer);
ts=tl/sl;
fseek(fp,(ts-1)*sl,SEEK_SET);
fread(&customer,sizeof(customer),1,fp);
printf("\ncustomer no:%d\n",++customer.number);
fclose(fp);
printf("    Account number:");
scanf("%d",&customer.acct_no);
printf("\n    Name:");
scanf("%s",customer.name);
//printf("\n    mobile no:");
//scanf("%d",&customer.mobile_no);
printf("    Street:");
scanf("%s",customer.street);
printf("    City:");
scanf("%s",customer.city);
printf("enter number of items purchased :");
scanf("%d",&n);
for(i=0;i<n;i++)
{
    printf("enter item name: ");
    scanf("%s",item[i]);
    printf("enter quantity:");
    scanf("%d",&qt[i]);
}
for(i=0;i<n;i++)
{
    for(j=0;j<5;j++)
    {
        if(strcmp(item[i],c[j].name)==0)
        {
            pr[i]=c[j].price;
        }
    }
}
for(i=0;i<n;i++)
{
    sub[i]=pr[i]*qt[i];
    total+=sub[i];
}
amt=total*gst+total;

printf("    Previous balance:");
scanf("%f",&customer.oldbalance);

//printf("    Current payment:");
customer.payment=amt;
//scanf("%f",&customer.payment);
printf("    Payment date(mm/dd/yyyy):");

scanf("%d/%d/%d",&customer.lastpayment.month,&customer.lastpayment.day,&customer.lastpayment.year);
printf("\n \n");
printf("*****\n");
printf("%50s\n","MAR stationary shop");
printf("*****\n");

```

```

        printf("ncustomer no:%d\n Account number:%d\n Street:%s\n
City:%s\n",customer.number,customer.acct_no,customer.street,customer.city);
        printf("*****\n");
        printf("%-14s %-7s %-7s %-7s\n","item name","price","quantity","subtotal");
        for(i=0;i<n;i++)
        {
            printf("%-8s \t%d\t %d\t %d\t\n",item[i],pr[i],qt[i],sub[i]);
        }
        printf("*****\n");
        printf("%31s: %d\n","total",total);
        printf("%31s: 0.18\n","GST");
        printf("%31s: %.2f\n","amt",amt);
        printf("*****\n");
        printf("\n\n");
        return;
    }
    void writefile()
    {
        FILE *fp;
        fp=fopen("jpms.dat","ab+");
        fwrite(&customer,sizeof(customer),1,fp);
        fclose(fp);
        return;
    }

    void search()
    {
        char ch;
        char nam[100];
        int n,i,m=1;
        FILE *fp;
        fp=fopen("jpms.dat","rb+");
        do{
            printf("\nEnter your choice:");
            ch=getche();
        }while(ch!='1' && ch!='2');
        switch(ch){
            case '1':
                fseek(fp,0,SEEK_END);
                tl=ftell(fp);
                sl=sizeof(customer);
                ts=tl/sl;
                do{
                    printf("\nchoose customer number:");
                    scanf("%d",&n);
                    if(n<=0 || n>ts)
                        printf("\nEnter correct\n");
                    else{
                        fseek(fp,(n-1)*sl,SEEK_SET);
                        fread(&customer,sl,1,fp);
                        output();
                    }
                    printf("\n\nagain?(y/n)");
                    ch=getche();
                }while(ch=='y');
                fclose(fp);
                break;
            case '2':
                fseek(fp,0,SEEK_END);
                tl=ftell(fp);

```

```

        sl=sizeof(customer);
        ts=tl/sl;
        fseek(fp,(ts-1)*sl,SEEK_SET);
        fread(&customer,sizeof(customer),1,fp);
        n=customer.number;

        do{
            printf("\nenter the name:");
            scanf("%s",nam);
            fseek(fp,0,SEEK_SET);
            for(i=1;i<=n;i++)
            {
                fread(&customer,sizeof(customer),1,fp);
                if(strcmp(customer.name,nam)==0)
                {
                    output();
                    m=0;
                    break;
                }
            }
            if(m!=0)
                printf("\n\ndoesn't exist\n");
            printf("\nanother?(y/n)");
            ch=getche();
        }while(ch=='y');
        fclose(fp);
    }
    return;
}

void output()
{
    printf("\n\n Customer no  :%d\n",customer.number);
    printf(" Name          :%s\n",customer.name);
    //printf(" Mobile no    :%.f\n",customer.mobile_no);
    printf(" Account number :%d\n",customer.acct_no);
    printf(" Street       :%s\n",customer.street);
    printf(" City        :%s\n",customer.city);
    printf(" Old balance   :%.2f\n",customer.oldbalance);
    printf(" Current payment:%.2f\n",customer.payment);
    printf(" New balance   :%.2f\n",customer.newbalance);
    printf(" Payment date
:%d/%d/%d\n\n",customer.lastpayment.month,customer.lastpayment.day,customer.lastpayment.year);
    printf(" Account status :");
    //textcolor(128+RED);
    switch(customer.acct_type)
    {
        case 'C':
            printf("CURRENT\n\n");
            break;
        case 'O':
            printf("OVERDUE\n\n");
            break;
        case 'D':
            printf("DELINQUENT\n\n");
            break;
        default:
            printf("ERROR\n\n");
    }
    //textcolor(WHITE);
    return;
}

```

}

OUTCOME:

WELCOME TO MAR STATIONARY SHOP

products available in our company

1. scale 10
2. rubber 5
3. small_note 25
4. long_note 30
5. pen 15

CUSTOMER BILLING SYSTEM:

=====

- 1: to calculate bill on shopping
- 2: to search customer account
- 3: exit

=====

select what do you want to do?1

how many customer accounts?

1

customer no:4

Account number:10010

Name:Menaga

Street:Sammatipuram

City:Madurai

enter number of items purchased :3

enter item name: rubber

enter quantity:2

enter item name: scale

enter quantity:1

enter item name: pen

enter quantity:2

Previous balance:0

Payment date(mm/dd/yyyy):09/03/2022

MAR stationary shop

ncustomer no:4

Account number:10010

Street:Sammatipuram

City:Madurai

item name	price	quantity	subtotal
-----------	-------	----------	----------

rubber	5	2	10
--------	---	---	----

scale	10	1	10
-------	----	---	----

pen	15	2	30
-----	----	---	----

total: 50

GST: 0.18

amt: 59.00

WELCOME TO MAR STATIONARY SHOP

products available in our company

1. scale 10

2. rubber 5

3. small_note 25

4. long_note 30

5. pen 15

CUSTOMER BILLING SYSTEM:

=====

- 1: to calculate bill on shopping
- 2: to search customer account
- 3: exit

=====

select what do you want to do?2search by what?

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

enter your choice:1

choose customer number:4

Customer no :4

Name :Menaga

Account number :10010

Street :Sammattipuram

City :Madurai

Old balance :0.00

Current payment:59.00

New balance :59.00

Payment date :9/3/2022

Account status :DELINQUENT

WELCOME TO MAR STATIONARY SHOP

products available in our company

1. scale 10
2. rubber 5
3. small_note 25

4. long_note 30

5. pen 15

CUSTOMER BILLING SYSTEM:

=====

1: to calculate bill on shopping

2: to search customer account

3: exit

=====

select what do you want to do?2search by what?

1 --- search by customer number

2 --- search by customer name

enter your choice:2

enter the name:Menaga

Customer no :1

Name :Menaga

Account number :10010

Street :kalavasa

City :madurai

Old balance :0.00

Current payment:64.90

New balance :64.90

Payment date :9/3/2022

Account status :DELINQUENT

WELCOME TO MAR STATIONARY SHOP

products available in our company

1. scale 10
2. rubber 5
3. small_note 25
4. long_note 30
5. pen 15

CUSTOMER BILLING SYSTEM:

=====

- 1: to calculate bill on shopping
- 2: to search customer account
- 3: exit

=====

select what do you want to do?3

Process exited after 229 seconds with return value 1

Press any key to continue . . .

CONCLUSION:

The program offers a comprehensive billing system for a stationary shop, facilitating the management of customer accounts, product sales, and transaction records. Its functionalities cater to both billing calculations and efficient retrieval of customer account details, providing a versatile solution for managing stationary shop operations.