PPS MINI PROJECT

BANK MANAGEMENT SYSTEM

Shaurya Srinet

RA2111032010006

CSE IOT U2

SYNOPSIS

In this project, you can create a new account, update information of an existing account, view and manage transactions, check the details of an existing account, remove existing account and view customers' list.

Overall, with this project, you can perform banking activities like in a REAL bank. Bank management mini project in C is a console application without graphics. It is compiled in Code::Blocks with gcc compiler.

The source code is password protected

(password is 1234).

In this bank management system project in C, file handling has been used for almost all functions. File has been used to store data related to new account, transaction, editing of account information and viewing of account information.

SOURCE CODE

```
#include<stdio.h>
#include<stdlib.h>
#include<windows.h>
int i,j;
int main_exit;
void menu();
struct date{
    int month,day,year;
    };
struct {
    char name[60];
    int acc_no,age;
    char address[60];
    char citizenship[15];
    double phone;
    char acc_type[10];
    float amt;
    struct date dob;
    struct date deposit;
    struct date withdraw;
    }add,upd,check,rem,transaction;
float interest(float t,float amount,int rate)
```

```
{
    float SI;
    SI=(rate*t*amount)/100.0;
    return (SI);
}
void fordelay(int j)
{   int i,k;
    for(i=0;i<j;i++)
        k=i;
}
void new_acc()
{
    int choice;
    FILE *ptr;
    ptr=fopen("record.dat","a+");
    account_no:
    system("cls");
    printf("\t\t\t\xB2\xB2\xB2\ ADD RECORD
\xB2\xB2\xB2\xB2");
    printf("\n\n\nEnter today's date(dd/mm/yyyy):");
scanf("%d/%d/%d",&add.deposit.month,&add.deposit.day,&add
.deposit.year);
    printf("\nEnter the account number:");
    scanf("%d",&check.acc_no);
    while(fscanf(ptr,"%d %s %d/%d/%d %d %s %s %lf %s %f
%d/%d/%d\n",&add.acc_no,add.name,&add.dob.month,&add.d
```

```
ob.day,&add.dob.year,&add.age,add.address,add.citizenship,&
add.phone,add.acc_type,&add.amt,&add.deposit.month,&add.d
eposit.day,&add.deposit.year)!=EOF)
    {
        if (check.acc_no==add.acc_no)
            {printf("Account no. already in use!");
            fordelay(1000000000);
                goto account_no;
            }
    }
    add.acc_no=check.acc_no;
        printf("\nEnter the name:");
    scanf("%s",add.name);
    printf("\nEnter the date of birth(dd/mm/yyyy):");
scanf("%d/%d/%d",&add.dob.month,&add.dob.day,&add.dob.y
ear);
    printf("\nEnter the age:");
    scanf("%d",&add.age);
    printf("\nEnter the address:");
    scanf("%s",add.address);
    printf("\nEnter the citizenship number:");
    scanf("%s",add.citizenship);
    printf("\nEnter the phone number: ");
    scanf("%lf",&add.phone);
    printf("\nEnter the amount to deposit:$");
    scanf("%f",&add.amt);
```

```
    printf("\nType of
account:\n\t#Saving\n\t#Current\n\t#Fixed1(for 1
year)\n\t#Fixed2(for 2 years)\n\t#Fixed3(for 3 years)\n\n\tEnter
your choice:");
    scanf("%s",add.acc_type);
        fprintf(ptr,"%d %s %d/%d/%d %d %s %s %lf %s %f
%d/%d/%d\n",add.acc_no,add.name,add.dob.month,add.dob.d
ay,add.dob.year,add.age,add.address,add.citizenship,add.phon
e,add.acc_type,add.amt,add.deposit.month,add.deposit.day,ad
d.deposit.year);
    fclose(ptr);
    printf("\nAccount created successfully!");
    add_invalid:
    printf("\n\n\n\t\tEnter 1 to go to the main menu and 0 to
exit:");
    scanf("%d",&main_exit);
    system("cls");
    if (main_exit==1)
        menu();
    else if(main_exit==0)
            close();
    else
        {
            printf("\nInvalid!\a");
            goto add_invalid;
        }
}
```

```
void view_list()
{
    FILE *view;
    view=fopen("record.dat","r");
    int test=0;
    system("cls");
    printf("\nACC. NO.\tNAME\t\t\tADDRESS\t\t\tPHONE\n");
    while(fscanf(view,"%d %s %d/%d/%d %d %s %s %lf %s %f
%d/%d/%d",&add.acc_no,add.name,&add.dob.month,&add.do
b.day,&add.dob.year,&add.age,add.address,add.citizenship,&a
dd.phone,add.acc_type,&add.amt,&add.deposit.month,&add.de
posit.day,&add.deposit.year)!=EOF)
      {
          printf("\n%6d\t
%10s\t\t\t%10s\t\t%.0lf",add.acc_no,add.name,add.address,ad
d.phone);
          test++;
      }
    fclose(view);
    if (test==0)
       {   system("cls");
           printf("\nNO RECORDS!!\n");}
    view_list_invalid:
     printf("\n\nEnter 1 to go to the main menu and 0 to exit:");
        scanf("%d",&main_exit);
        system("cls");
        if (main_exit==1)
```

```
            menu();
        else if(main_exit==0)
            close();
        else
        {
            printf("\nInvalid!\a");
            goto view_list_invalid;
        }
}
void edit(void)
{
    int choice,test=0;
    FILE *old,*newrec;
    old=fopen("record.dat","r");
    newrec=fopen("new.dat","w");
    printf("\nEnter the account no. of the customer whose info
you want to change:");
    scanf("%d",&upd.acc_no);
    while(fscanf(old,"%d %s %d/%d/%d %d %s %s %lf %s %f
%d/%d/%d",&add.acc_no,add.name,&add.dob.month,&add.do
b.day,&add.dob.year,&add.age,add.address,add.citizenship,&a
dd.phone,add.acc_type,&add.amt,&add.deposit.month,&add.de
posit.day,&add.deposit.year)!=EOF)
    {
        if (add.acc_no==upd.acc_no)
        {   test=1;
```

```
        printf("\nWhich information do you want to
change?\n1.Address\n2.Phone\n\nEnter your choice(1 for
address and 2 for phone):");
        scanf("%d",&choice);
        system("cls");
        if(choice==1)
           {printf("Enter the new address:");
           scanf("%s",upd.address);
           fprintf(newrec,"%d %s %d/%d/%d %d %s %s %lf %s
%f
%d/%d/%d\n",add.acc_no,add.name,add.dob.month,add.dob.d
ay,add.dob.year,add.age,upd.address,add.citizenship,add.phon
e,add.acc_type,add.amt,add.deposit.month,add.deposit.day,ad
d.deposit.year);
           system("cls");
           printf("Changes saved!");
           }
        else if(choice==2)
           {
              printf("Enter the new phone number:");
           scanf("%lf",&upd.phone);
           fprintf(newrec,"%d %s %d/%d/%d %d %s %s %lf %s
%f
%d/%d/%d\n",add.acc_no,add.name,add.dob.month,add.dob.d
ay,add.dob.year,add.age,add.address,add.citizenship,upd.phon
e,add.acc_type,add.amt,add.deposit.month,add.deposit.day,ad
d.deposit.year);
           system("cls");
```

```
            printf("Changes saved!");
            }
        }
        else
            fprintf(newrec,"%d %s %d/%d/%d %d %s %s %lf %s %f
%d/%d/%d\n",add.acc_no,add.name,add.dob.month,add.dob.d
ay,add.dob.year,add.age,add.address,add.citizenship,add.phon
e,add.acc_type,add.amt,add.deposit.month,add.deposit.day,ad
d.deposit.year);
    }
    fclose(old);
    fclose(newrec);
    remove("record.dat");
    rename("new.dat","record.dat");
if(test!=1)
        {   system("cls");
            printf("\nRecord not found!!\a\a\a");
            edit_invalid:
              printf("\nEnter 0 to try again,1 to return to main menu
and 2 to exit:");
              scanf("%d",&main_exit);
              system("cls");
                if (main_exit==1)
                    menu();
                else if (main_exit==2)
                    close();
```

```
            else if(main_exit==0)
                edit();
            else
                {printf("\nInvalid!\a");
                goto edit_invalid;}
        }
    else
        {printf("\n\n\nEnter 1 to go to the main menu and 0 to
exit:");
        scanf("%d",&main_exit);
        system("cls");
        if (main_exit==1)
            menu();
        else
            close();
        }
}
void transact(void)
{   int choice,test=0;
    FILE *old,*newrec;
    old=fopen("record.dat","r");
    newrec=fopen("new.dat","w");
        printf("Enter the account no. of the customer:");
    scanf("%d",&transaction.acc_no);
```

```
   while (fscanf(old,"%d %s %d/%d/%d %d %s %s %lf %s %f
%d/%d/%d",&add.acc_no,add.name,&add.dob.month,&add.do
b.day,&add.dob.year,&add.age,add.address,add.citizenship,&a
dd.phone,add.acc_type,&add.amt,&add.deposit.month,&add.de
posit.day,&add.deposit.year)!=EOF)
  {
        if(add.acc_no==transaction.acc_no)
        {   test=1;

if(strcmpi(add.acc_type,"fixed1")==0||strcmpi(add.acc_type,"fix
ed2")==0||strcmpi(add.acc_type,"fixed3")==0)
            {
               printf("\a\a\a\n\nYOU CANNOT DEPOSIT OR
WITHDRAW CASH IN FIXED ACCOUNTS!!!!!");
               fordelay(1000000000);
               system("cls");
               menu();
            }
            printf("\n\nDo you want
to\n1.Deposit\n2.Withdraw?\n\nEnter your choice(1 for deposit
and 2 for withdraw):");
            scanf("%d",&choice);
            if (choice==1)
            {
               printf("Enter the amount you want to deposit:$ ");
               scanf("%f",&transaction.amt);
               add.amt+=transaction.amt;
```

```
                fprintf(newrec,"%d %s %d/%d/%d %d %s %s %lf
%s %f
%d/%d/%d\n",add.acc_no,add.name,add.dob.month,add.dob.d
ay,add.dob.year,add.age,add.address,add.citizenship,add.phon
e,add.acc_type,add.amt,add.deposit.month,add.deposit.day,ad
d.deposit.year);
                printf("\n\nDeposited successfully!");
            }
            else
            {
                printf("Enter the amount you want to withdraw:$ ");
                scanf("%f",&transaction.amt);
                add.amt-=transaction.amt;
                fprintf(newrec,"%d %s %d/%d/%d %d %s %s %lf
%s %f
%d/%d/%d\n",add.acc_no,add.name,add.dob.month,add.dob.d
ay,add.dob.year,add.age,add.address,add.citizenship,add.phon
e,add.acc_type,add.amt,add.deposit.month,add.deposit.day,ad
d.deposit.year);
                printf("\n\nWithdrawn successfully!");
            }
        }
        else
        {
           fprintf(newrec,"%d %s %d/%d/%d %d %s %s %lf %s
%f
%d/%d/%d\n",add.acc_no,add.name,add.dob.month,add.dob.d
ay,add.dob.year,add.age,add.address,add.citizenship,add.phon
```

```
e,add.acc_type,add.amt,add.deposit.month,add.deposit.day,ad
d.deposit.year);
          }
  }
  fclose(old);
  fclose(newrec);
  remove("record.dat");
  rename("new.dat","record.dat");
  if(test!=1)
  {
      printf("\n\nRecord not found!!");
      transact_invalid:
     printf("\n\n\nEnter 0 to try again,1 to return to main menu
and 2 to exit:");
     scanf("%d",&main_exit);
     system("cls");
     if (main_exit==0)
       transact();
   else if (main_exit==1)
       menu();
   else if (main_exit==2)
       close();
   else
   {
       printf("\nInvalid!");
```

```
        goto transact_invalid;
    }
   }
   else
   {
       printf("\nEnter 1 to go to the main menu and 0 to exit:");
        scanf("%d",&main_exit);
        system("cls");
        if (main_exit==1)
            menu();
        else
            close();
   }
}
void erase(void)
{
    FILE *old,*newrec;
    int test=0;
    old=fopen("record.dat","r");
    newrec=fopen("new.dat","w");
    printf("Enter the account no. of the customer you want to
delete:");
    scanf("%d",&rem.acc_no);
    while (fscanf(old,"%d %s %d/%d/%d %d %s %s %lf %s %f
%d/%d/%d",&add.acc_no,add.name,&add.dob.month,&add.do
b.day,&add.dob.year,&add.age,add.address,add.citizenship,&a
```

```
dd.phone,add.acc_type,&add.amt,&add.deposit.month,&add.deposit.day,&add.deposit.year)!=EOF)
  {
      if(add.acc_no!=rem.acc_no)
          fprintf(newrec,"%d %s %d/%d/%d %d %s %s %lf %s %f %d/%d/%d\n",add.acc_no,add.name,add.dob.month,add.dob.day,add.dob.year,add.age,add.address,add.citizenship,add.phone,add.acc_type,add.amt,add.deposit.month,add.deposit.day,add.deposit.year);
      else
          {test++;
          printf("\nRecord deleted successfully!\n");
          }
  }
  fclose(old);
  fclose(newrec);
  remove("record.dat");
  rename("new.dat","record.dat");
  if(test==0)
      {
          printf("\nRecord not found!!\a\a\a");
          erase_invalid:
            printf("\nEnter 0 to try again,1 to return to main menu and 2 to exit:");
            scanf("%d",&main_exit);
              if (main_exit==1)
                  menu();
```

```
            else if (main_exit==2)
                close();
            else if(main_exit==0)
                erase();
            else
                {printf("\nInvalid!\a");
                goto erase_invalid;}
        }
    else
        {printf("\nEnter 1 to go to the main menu and 0 to exit:");
        scanf("%d",&main_exit);
        system("cls");
        if (main_exit==1)
            menu();
        else
            close();
        }
}
void see(void)
{
    FILE *ptr;
    int test=0,rate;
    int choice;
    float time;
    float intrst;
```

```
    ptr=fopen("record.dat","r");
    printf("Do you want to check by\n1.Account
no\n2.Name\nEnter your choice:");
    scanf("%d",&choice);
    if (choice==1)
    {   printf("Enter the account number:");
        scanf("%d",&check.acc_no);
        while (fscanf(ptr,"%d %s %d/%d/%d %d %s %s %lf %s %f
%d/%d/%d",&add.acc_no,add.name,&add.dob.month,&add.do
b.day,&add.dob.year,&add.age,add.address,add.citizenship,&a
dd.phone,add.acc_type,&add.amt,&add.deposit.month,&add.de
posit.day,&add.deposit.year)!=EOF)
        {
            if(add.acc_no==check.acc_no)
            {   system("cls");
                test=1;
                printf("\nAccount NO.:%d\nName:%s
\nDOB:%d/%d/%d \nAge:%d \nAddress:%s \nCitizenship
No:%s \nPhone number:%.0lf \nType Of Account:%s \nAmount
deposited:$ %.2f \nDate Of
Deposit:%d/%d/%d\n\n",add.acc_no,add.name,add.dob.month,
add.dob.day,add.dob.year,add.age,add.address,add.citizenship
,add.phone,
add.acc_type,add.amt,add.deposit.month,add.deposit.day,add.
deposit.year);
                if(strcmpi(add.acc_type,"fixed1")==0)
                  {
                     time=1.0;
```

```
                rate=9;
                intrst=interest(time,add.amt,rate);
                printf("\n\nYou will get $%.2f as interest on
%d/%d/%d",intrst,add.deposit.month,add.deposit.day,add.depo
sit.year+1);
            }
          else if(strcmpi(add.acc_type,"fixed2")==0)
            {
                time=2.0;
                rate=11;
                intrst=interest(time,add.amt,rate);
                printf("\n\nYou will get $.%.2f as interest on
%d/%d/%d",intrst,add.deposit.month,add.deposit.day,add.depo
sit.year+2);
            }
          else if(strcmpi(add.acc_type,"fixed3")==0)
            {
                time=3.0;
                rate=13;
                intrst=interest(time,add.amt,rate);
                printf("\n\nYou will get $.%.2f as interest on
%d/%d/%d",intrst,add.deposit.month,add.deposit.day,add.depo
sit.year+3);
            }
           else if(strcmpi(add.acc_type,"saving")==0)
            {
                time=(1.0/12.0);
```

```
                    rate=8;
                    intrst=interest(time,add.amt,rate);
                    printf("\n\nYou will get $.%.2f as interest on %d
of every month",intrst,add.deposit.day);
                }
              else if(strcmpi(add.acc_type,"current")==0)
              {
                    printf("\n\nYou will get no interest\a\a");
                }
          }
       }
   }
   else if (choice==2)
   {   printf("Enter the name:");
       scanf("%s",&check.name);
       while (fscanf(ptr,"%d %s %d/%d/%d %d %s %s %lf %s %f
%d/%d/%d",&add.acc_no,add.name,&add.dob.month,&add.do
b.day,&add.dob.year,&add.age,add.address,add.citizenship,&a
dd.phone,add.acc_type,&add.amt,&add.deposit.month,&add.de
posit.day,&add.deposit.year)!=EOF)
       {
          if(strcmpi(add.name,check.name)==0)
          {   system("cls");
              test=1;
              printf("\nAccount No.:%d\nName:%s
\nDOB:%d/%d/%d \nAge:%d \nAddress:%s \nCitizenship
No:%s \nPhone number:%.0lf \nType Of Account:%s \nAmount
```

```
deposited:$%.2f \nDate Of
Deposit:%d/%d/%d\n\n",add.acc_no,add.name,add.dob.month,
add.dob.day,add.dob.year,add.age,add.address,add.citizenship
,add.phone,


add.acc_type,add.amt,add.deposit.month,add.deposit.day,add.
deposit.year);
            if(strcmpi(add.acc_type,"fixed1")==0)
               {
                  time=1.0;
                  rate=9;
                  intrst=interest(time,add.amt,rate);
                  printf("\n\nYou will get $.%.2f as interest on
%d/%d/%d",intrst,add.deposit.month,add.deposit.day,add.depo
sit.year+1);
               }
            else if(strcmpi(add.acc_type,"fixed2")==0)
               {
                  time=2.0;
                  rate=11;
                  intrst=interest(time,add.amt,rate);
                  printf("\n\nYou will get $.%.2f as interest on
%d/%d/%d",intrst,add.deposit.month,add.deposit.day,add.depo
sit.year+2);


               }
            else if(strcmpi(add.acc_type,"fixed3")==0)
```

```
                {
                    time=3.0;
                    rate=13;
                    intrst=interest(time,add.amt,rate);
                    printf("\n\nYou will get $.%.2f as interest on
%d/%d/%d",intrst,add.deposit.month,add.deposit.day,add.depo
sit.year+3);
                }
              else if(strcmpi(add.acc_type,"saving")==0)
                {
                    time=(1.0/12.0);
                    rate=8;
                    intrst=interest(time,add.amt,rate);
                    printf("\n\nYou will get $.%.2f as interest on %d
of every month",intrst,add.deposit.day);
                 }
              else if(strcmpi(add.acc_type,"current")==0)
                {
                    printf("\n\nYou will get no interest\a\a");
                 }
          }
       }
   }
   fclose(ptr);
    if(test!=1)
       {   system("cls");
```

```
            printf("\nRecord not found!!\a\a\a");
            see_invalid:
              printf("\nEnter 0 to try again,1 to return to main menu
and 2 to exit:");
              scanf("%d",&main_exit);
              system("cls");
                if (main_exit==1)
                   menu();
               else if (main_exit==2)
                   close();
               else if(main_exit==0)
                   see();
               else
                   {
                      system("cls");
                      printf("\nInvalid!\a");
                      goto see_invalid;}
        }
    else
        {printf("\nEnter 1 to go to the main menu and 0 to exit:");
        scanf("%d",&main_exit);}
        if (main_exit==1)
        {
            system("cls");
            menu();
```

```
        }
        else
           {
             system("cls");
            close();
            }
}
void close(void)
{
    printf("\n\n\n\nThis C Mini Project is developed by Shaurya");
    }
void menu(void)
{   int choice;
    system("cls");
    system("color 9");
    printf("\n\n\t\t\tCUSTOMER ACCOUNT BANKING
MANAGEMENT SYSTEM");
    printf("\n\n\n\t\t\t\xB2\xB2\xB2\xB2\xB2\xB2\xB2 WELCOME
TO THE MAIN MENU \xB2\xB2\xB2\xB2\xB2\xB2\xB2");
    printf("\n\n\t\t1.Create new account\n\t\t2.Update information
of existing account\n\t\t3.For transactions\n\t\t4.Check the
details of existing account\n\t\t5.Removing existing
account\n\t\t6.View customer's list\n\t\t7.Exit\n\n\n\n\n\t\t Enter
your choice:");
    scanf("%d",&choice);


    system("cls");
```

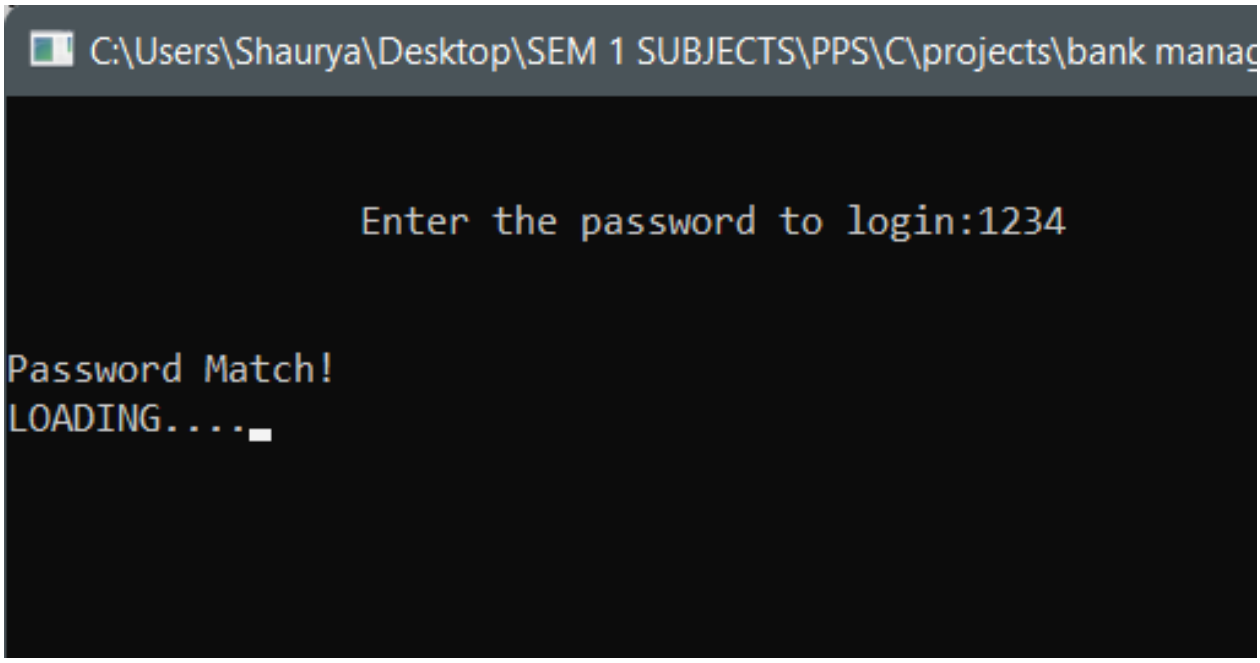
```
    switch(choice)
    {
        case 1:new_acc();
        break;
        case 2:edit();
        break;
        case 3:transact();
        break;
        case 4:see();
        break;
        case 5:erase();
        break;
        case 6:view_list();
        break;
        case 7:close();
        break;

    }
}
int main()
{
    char pass[10],password[10]="1234";
    int i=0;
    printf("\n\n\t\tEnter the password to login:");
    scanf("%s",pass);
```

```
/*do
{
//if (pass[i]!=13&&pass[i]!=8)
    {
        printf("*");
        pass[i]=getch();
        i++;
    }
}while (pass[i]!=13);
pass[10]='\0';*/
if (strcmp(pass,password)==0)
    {printf("\n\nPassword Match!\nLOADING");
    for(i=0;i<=6;i++)
    {
        fordelay(100000000);
        printf(".");
    }
            system("cls");
        menu();
    }
else
    {   printf("\n\nWrong password!!\a\a\a");
        login_try:
        printf("\nEnter 1 to try again and 0 to exit:");
        scanf("%d",&main_exit);
```

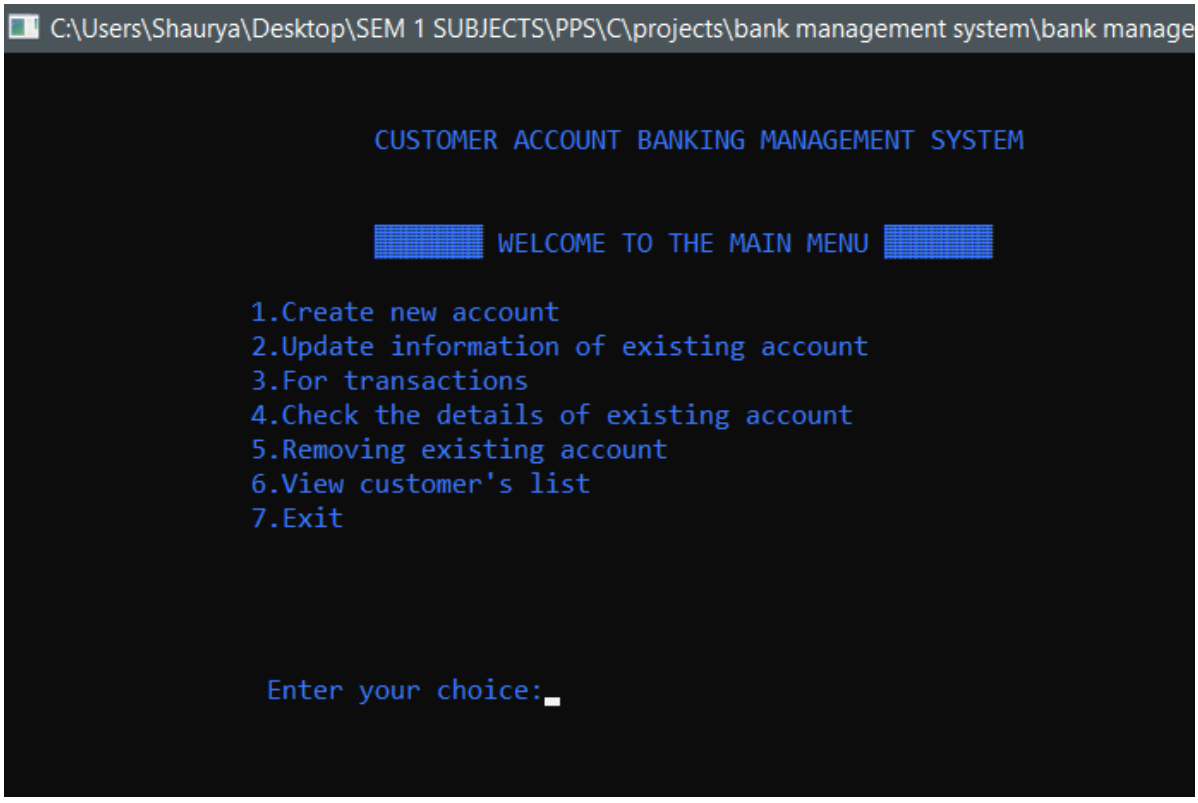
```
        if (main_exit==1)
                {
                    system("cls");
                    main();
                }
        else if (main_exit==0)
                {
                system("cls");
                close();}
        else
                {printf("\nInvalid!");
                fordelay(1000000000);
                system("cls");
                goto login_try;}
    }
    return 0;
}
```

OUTPUT

 # Password (Login)

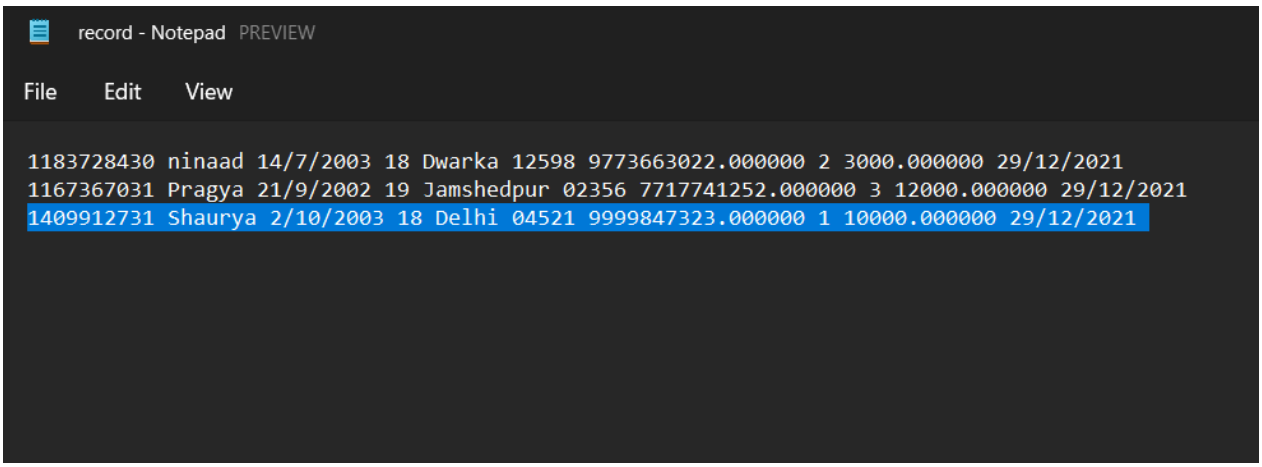


 # Main Menu

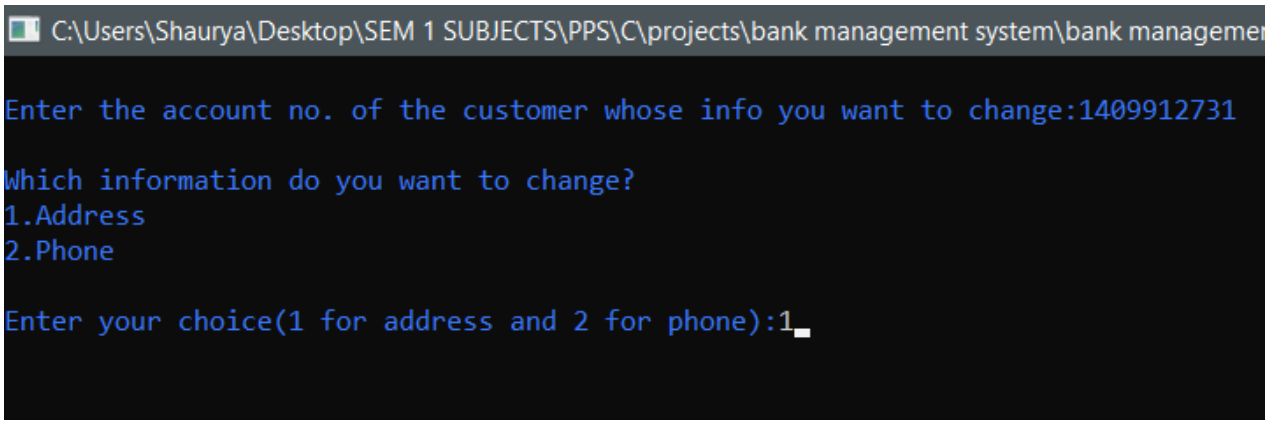


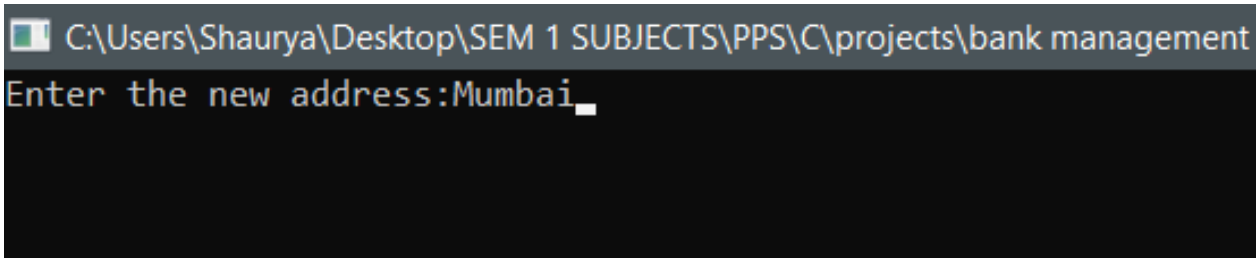
(1) Creating an account

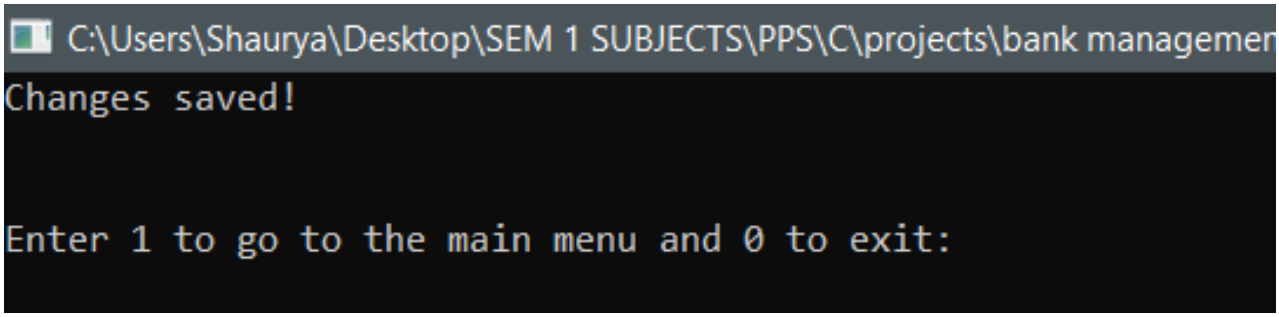
```
Enter the account number:1409912731

Enter the name:Shaurya

Enter the date of birth(dd/mm/yyyy):02/10/2003

Enter the age:18

Enter the address:Delhi

Enter the citizenship number:04521

Enter the phone number: 9999847323

Enter the amount to deposit:$10000

Type of account:
        #Saving
        #Current
        #Fixed1(for 1 year)
        #Fixed2(for 2 years)
        #Fixed3(for 3 years)

        Enter your choice:1

Account created successfully!


                Enter 1 to go to the main menu and 0 to exit:
```

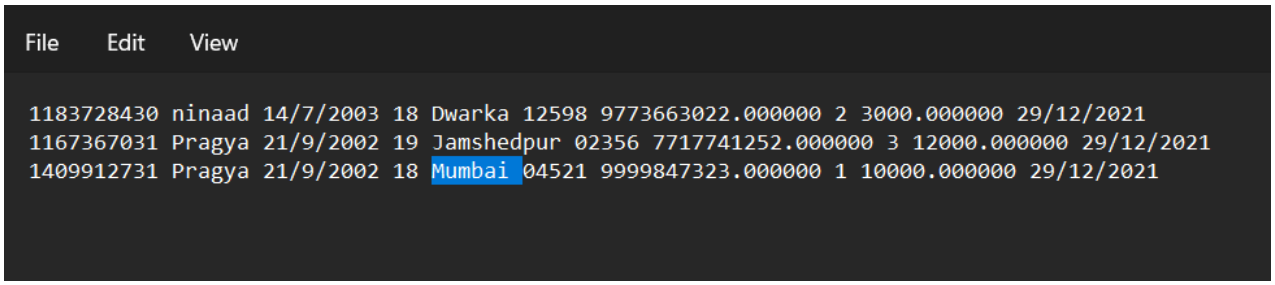


(2) Updating account

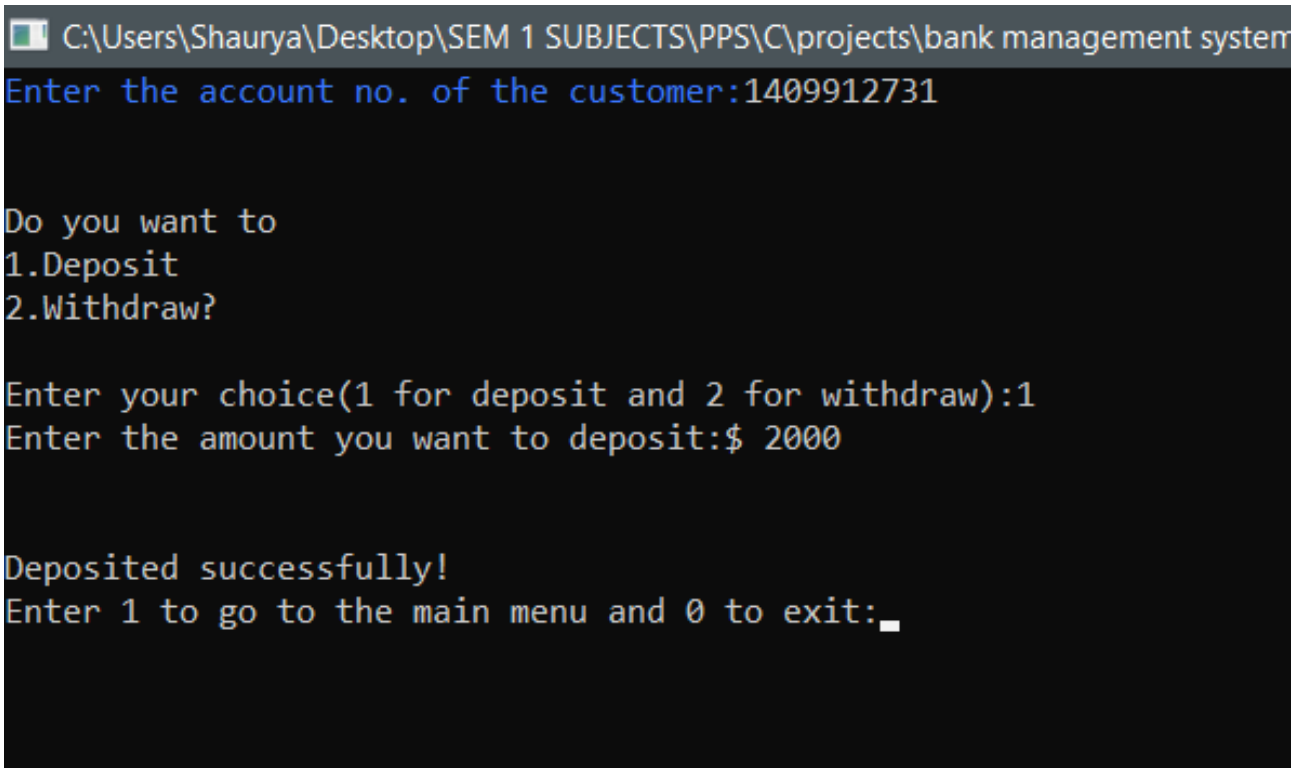


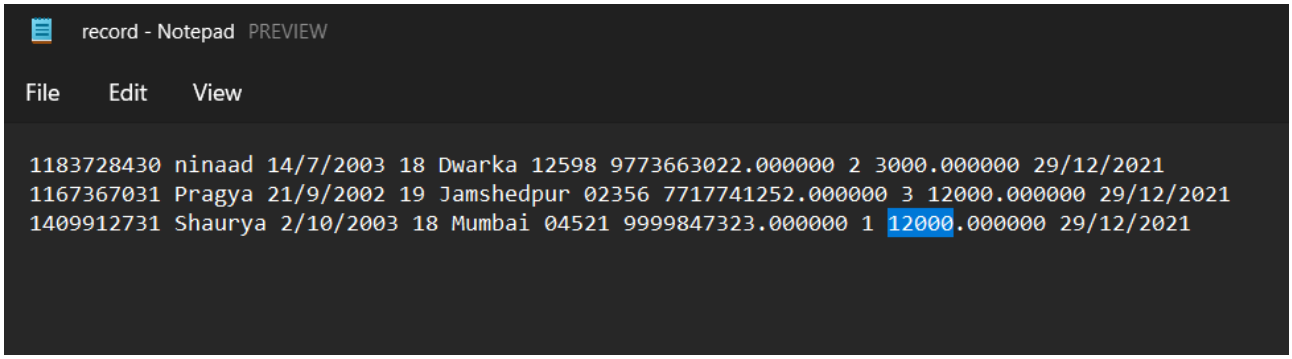




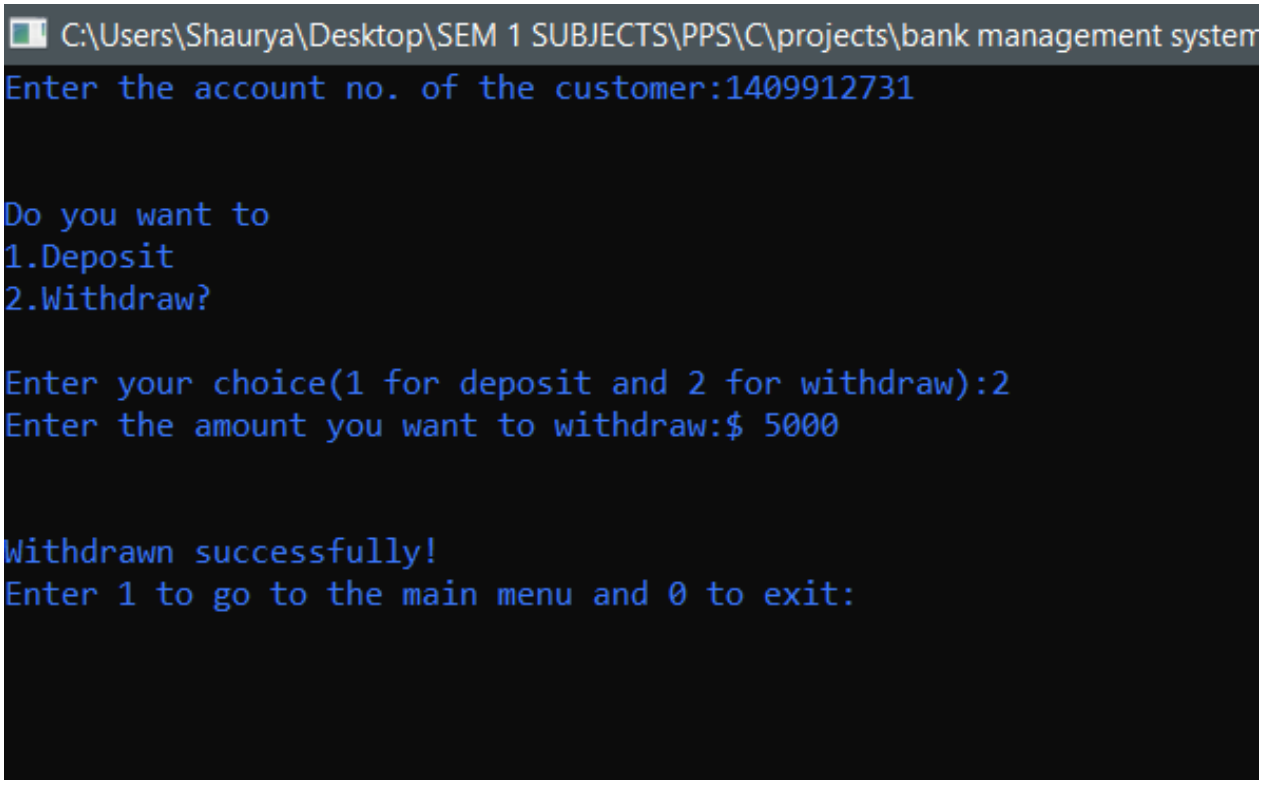


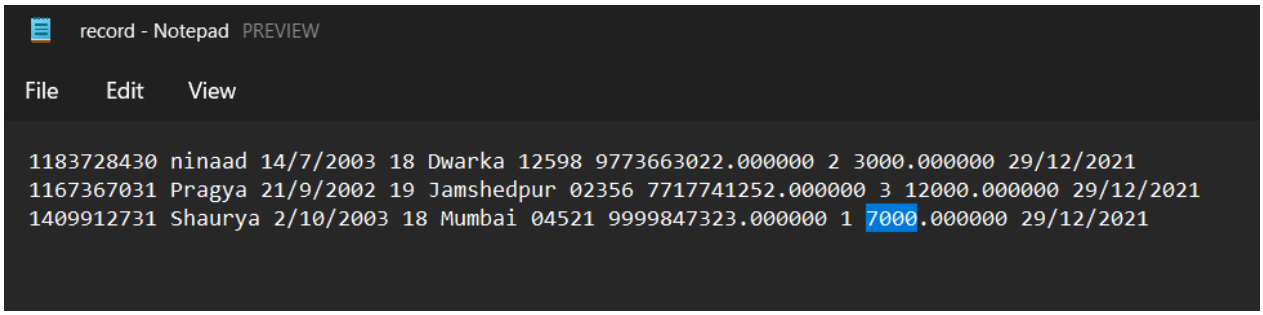
(3.1) Transaction (Deposit)



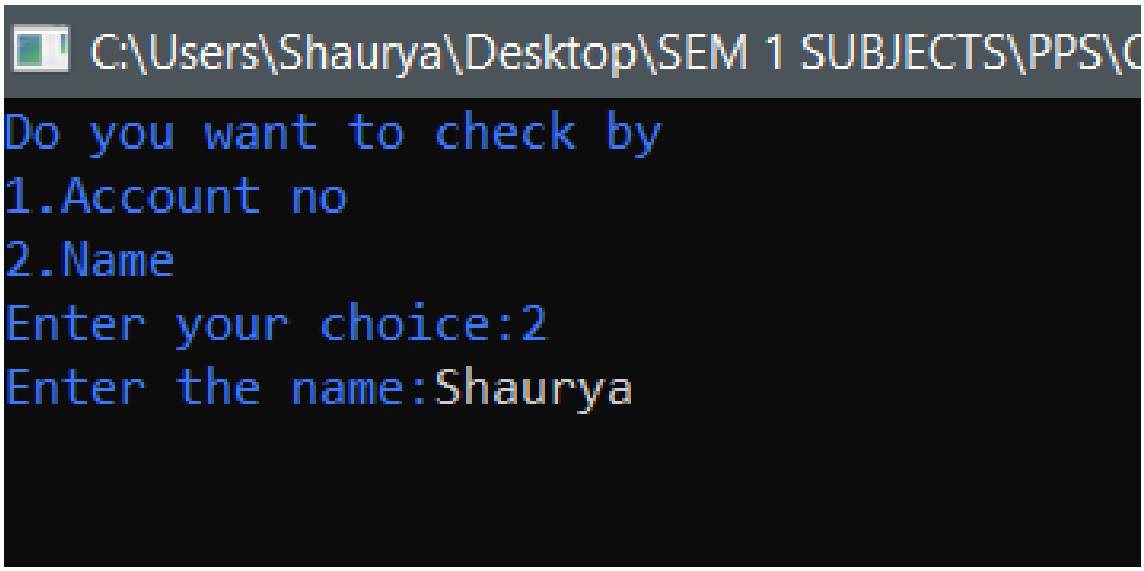


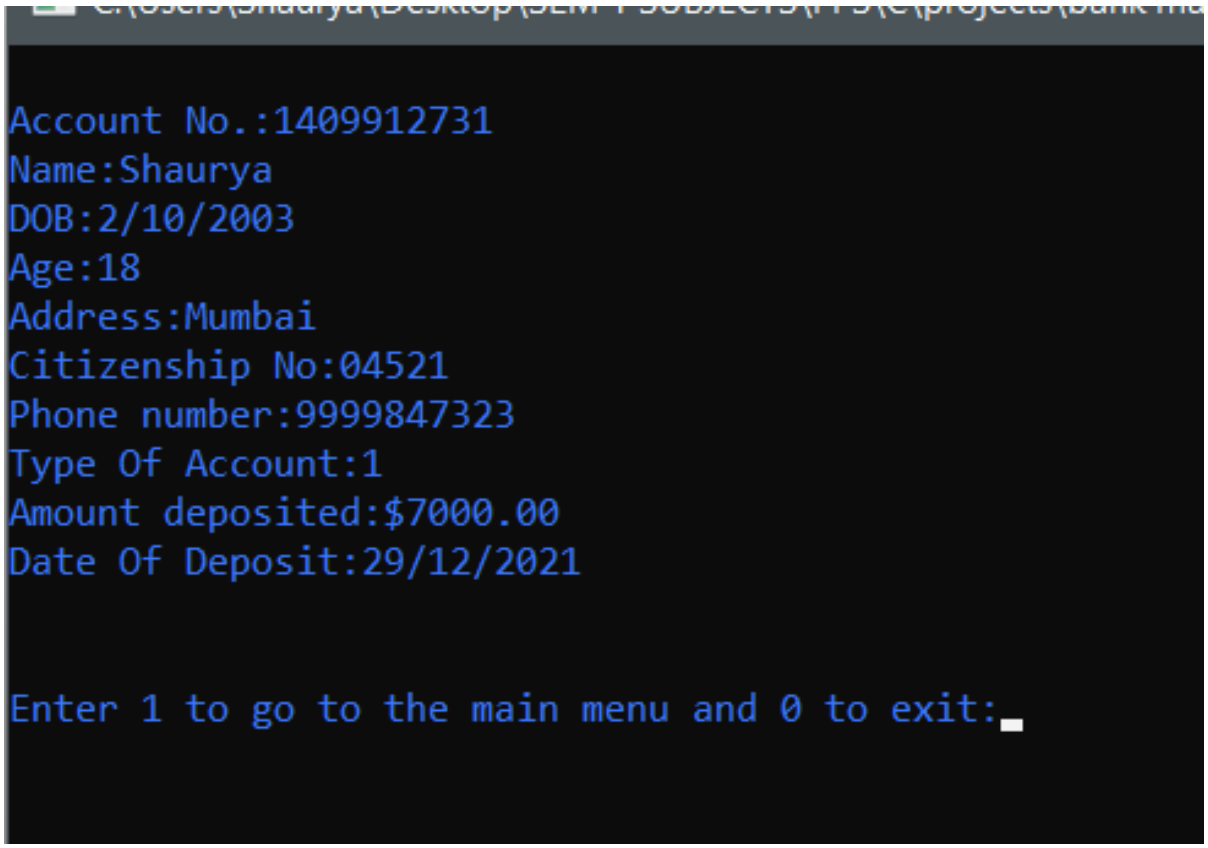
(3.2) Transaction (Withdraw)



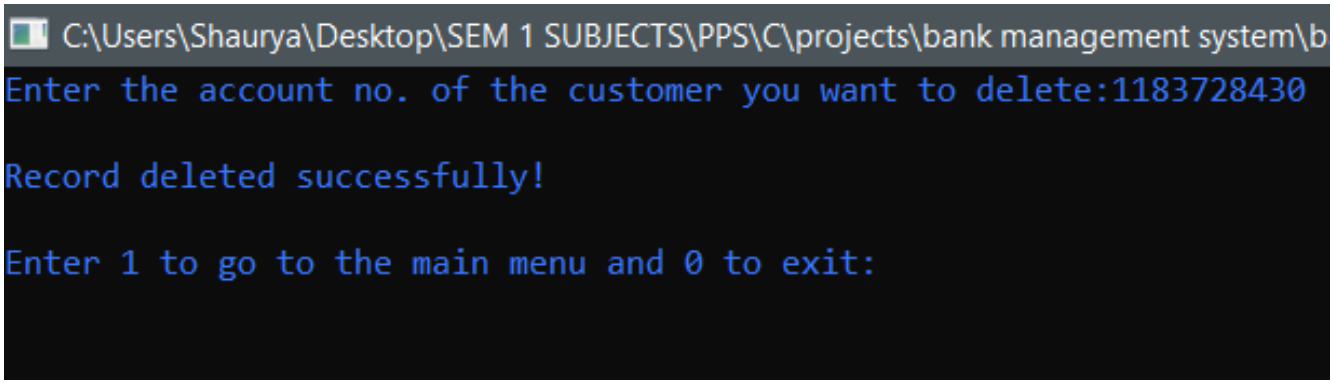


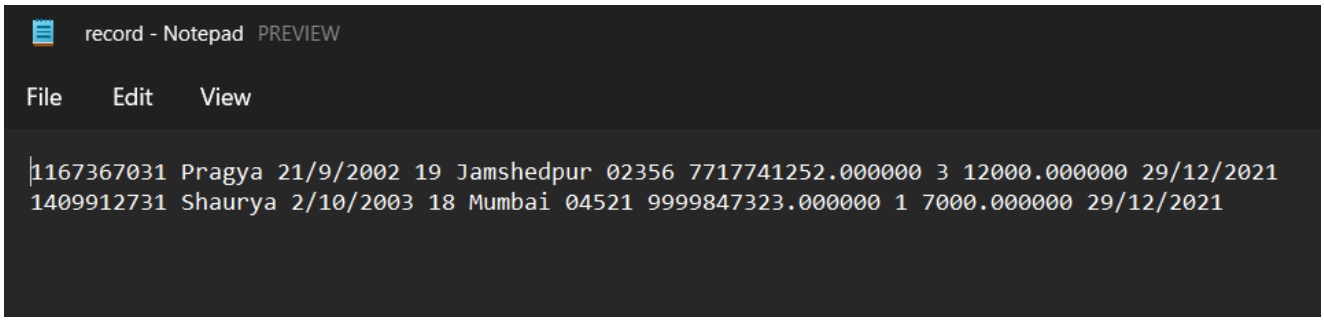
(4) Details of a particular customer



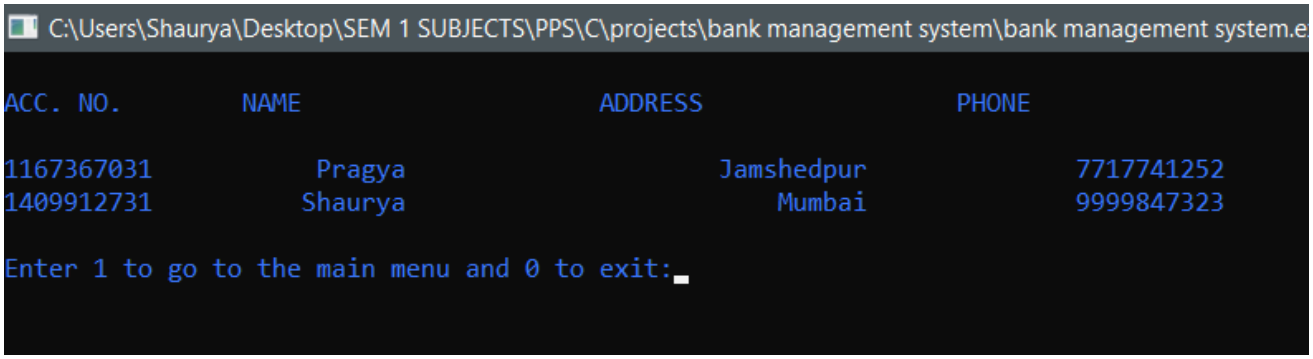
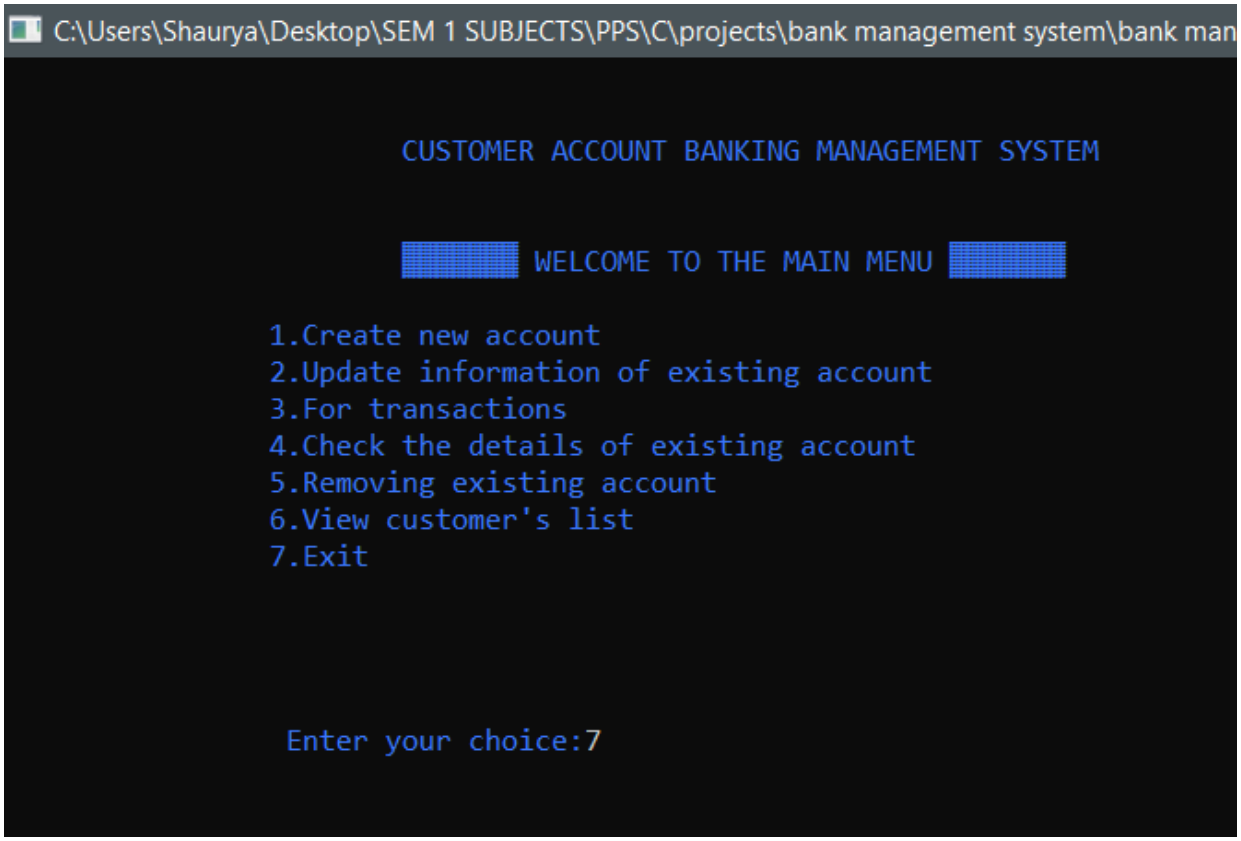


(5) Deleting a bank account





(6) List of all customers registered in the system



(7) Exit