

PROJECT TITLE

BANK MANAGEMENT SYSTEM

TEAM MEMBERS

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DEPARTMENT

MECHANICAL - [A]

SUBMITTED TO

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ABSTRACT:

About Bank Management System Project:

Bank Management System is based on a concept to generate and maintain daily payment transactions with the customer's account. Before stepping into the main system a user has to pass through login system to get access, then only he/she can use all the features of the system which includes Adding, Removing, Updating and viewing records, withdraw and deposit cash feature, check details of existing customers and another one is ATM feature.

Talking about the features of Bank Management System, while entering customer's record he/she has to provide the current date, account number, name, date of birth, age, address, citizenship number, phone number, the amount deposited while creating an account and select account type. Under this, there are five types of account, Saving, Current, Fixed(for 1 year), Fixed(for 2 years), Fixed(for 3 years). But while updating customer's information from existing account, he/she can only change address and phone number. There are two methods to check a user's account in detail i.e by Account number or by Account name. The other listing record displays customer's name with an Account number, address and contact detail.

Transaction through a bank is either done by Depositing or Withdrawing amounts. So here the user can use both of the features easily. Whenever a user wants to withdraw or deposit some amount of money he/she has to provide Amount then the system automatically maintain his/her Transaction record with total bank balance. And another thing is that while checking a customer's account in detail the system will display a bank interest information. This system calculates interest per month and displays to the user.

About ATM Feature:

Another interesting feature is ATM. People use ATM in need so this bank management system contains the feature for easy management of both features using a single system. Before proceeding towards the ATM feature the user has to enter ATM pin code to get access. Here, he/she can check for Balance inquiry, deposit money and withdraw money. After accessing ATM features, the user just has to enter amount number while depositing or withdrawing amount.

This whole Bank management system project is developed using C Programming Language and different variables, strings have been used for the development of it. Bank Management System in C Programming is free to download with source code.

SOURCE CODE:

#include <stdio.h></stdio.h>
#include <stdlib.h></stdlib.h>
#include <windows.h></windows.h>
#include <stdbool.h></stdbool.h>
int i,j;
int main_exit;
void menu();
int atm();

```
void close();
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==== ADD RECORD ====");
        printf("\n\nEnter today's date(mm/dd/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/n", \&add.acc\_no, add.name, \&add.dob.month, \&add.dob.day, \&add.dob.year, \&add.age, add.age, add
d.address,add.citizenship,&add.phone,add.acc_type,&add.amt,&add.deposit.month,&add.deposit.d
ay,&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(mm/dd/yyyy):");
      scanf("%d/%d/%d",&add.dob.month,&add.dob.day,&add.dob.year);
      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 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\n",add.acc_no,add.name,add.dob.month,add.dob.day,add.dob.year,add.age,add.addres
s, add. citizenship, add. phone, add. acc\_type, add. amt, add. deposit. month, add. deposit. day, add. deposit.
year);
      fclose(ptr);
```

```
printf("\nAccount created successfully!");
  add_invalid:
  printf("\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",&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)!=EOF)
   {
      printf("\n%6d\t %10s\t\t\t%10s\t\t%.0lf",add.acc_no,add.name,add.address,add.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. dob. day, \& add. dob. year, \& add. age, add. dob. day, \& add. dob. year, \& add. age, add. dob. day, \& add. dob. year, \& add. age, add. dob. day, \& add. dob. year, \& add. age, add. dob. day, \& add. dob. year, \& add. age, add. dob. year, & add. age, & add. dob. year, & add. age, & add. dob. year, & add. year, & add.
address, add. citizenship, \& add. phone, add. acc\_type, \& add. amt, \& add. deposit. month, \& add. deposit. day add. acc\_type, \& add. amt, \& add. deposit. month, \& add. deposit. day add. acc\_type, \& add. acc\_t
,&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.day,add.dob.year,add.age,upd.addres
s,add.citizenship,add.phone,add.acc_type,add.amt,add.deposit.month,add.deposit.day,add.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.day,add.dob.year,add.age,add.addres
```

```
s, add. citizenship, upd. phone, add. acc\_type, add. amt, add. deposit. month, add. deposit. day, add. deposit.
year);
         system("cls");
         printf("Changes saved!");
         }
    }
    else
      fprintf(newrec,"%d %s %d/%d/%d %d %s %s %lf %s %f
%d/%d\n",add.acc_no,add.name,add.dob.month,add.dob.day,add.dob.year,add.age,add.addres
s, add. citizenship, add. phone, add. acc\_type, add. amt, add. deposit. month, add. deposit. day, add. 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)
```

```
else if(main_exit==0)
          edit();
        else
          {printf("\nInvalid!\a");
          goto edit_invalid;}
    }
  else
    {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
      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.dob.day,&add.dob.year,&add.age,add.
```

close();

```
address, add. citizenship, \& add. phone, add. acc\_type, \& add. amt, \& add. deposit. month, \& add. deposit. day add. acc\_type, \& add. acc\_typ
,&add.deposit.year)!=EOF)
     {
                     if(add.acc no==transaction.acc no)
                     { test=1;
if(strcmpi(add.acc_type,"fixed1")==0||strcmpi(add.acc_type,"fixed2")==0||strcmpi(add.acc_type,"fi
xed3")==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\n2.Withdraw)
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.day,add.dob.year,add.age,add.addres
s,add.citizenship,add.phone,add.acc_type,add.amt,add.deposit.month,add.deposit.day,add.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.day,add.dob.year,add.age,add.addres
s,add.citizenship,add.phone,add.acc_type,add.amt,add.deposit.month,add.deposit.day,add.deposit.
year);
          printf("\n\nWithdrawn successfully!");
        }
      }
      else
      {
        fprintf(newrec,"%d %s %d/%d/%d %d %s %s %lf %s %f
%d/%d\n",add.acc_no,add.name,add.dob.month,add.dob.day,add.dob.year,add.age,add.addres
s, add. citizenship, add. phone, add. acc\_type, add. amt, add. deposit. month, add. deposit. day, add. 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",&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)!=EOF)
 {
    if(add.acc_no!=rem.acc_no)
      fprintf(newrec,"%d %s %d/%d/%d %d %s %s %lf %s %f
%d/%d\n",add.acc_no,add.name,add.dob.month,add.dob.day,add.dob.year,add.age,add.addres
s, 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.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)!=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:%.0If \nType Of Account:%s \nAmount deposited:$ %.2f
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.deposit.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.deposit.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.deposit.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 $.%.2f as interest on %d of every
month",intrst,add.deposit.day);
                                 }
                            else if(strcmpi(add.acc_type,"current")==0)
                                {
                                       printf("\n\nYou will get no interest\a\a");
                                 }
                  }
            }
      }
      else if (choice==2)
      { printf("Enter the name:");
             scanf("%s",&check.name);
             while (fscanf(ptr,"%d %s %d/%d/%d %d %s %s %lf %s %f
%d/%d/%d",&add.acc no,add.name,&add.dob.month,&add.dob.day,&add.dob.year,&add.age,add.
address,add.citizenship,&add.phone,add.acc_type,&add.amt,&add.deposit.month,&add.deposit.day
,&add.deposit.year)!=EOF)
            {
                   if(strcmpi(add.name,check.name)==0)
                   { system("cls");
                         test=1;
                          printf("\nAccount No.:%d\nName:%s \nDOB:%d/%d/%d \nAge:%d \nAddress:%s
\nCitizenship No:%s \nPhone number:%.0If \nType Of Account:%s \nAmount deposited:$%.2f
Deposit: \%d/\%d/\%d/n/n", add.acc\_no, add.name, add.dob.month, add.dob.day, add.dob.year, add.age, add.dob.month, add.dob.day, add.dob.year, add.age, add.dob.month, add.dob.day, add.dob.year, add.age, add.dob.year, add.d
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.deposit.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.deposit.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.deposit.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\nBrought To You by code-projects.org");
  }
void menu(void)
{ int choice;
  system("cls");
  system("color 7");
  printf("\n\n\t\t
                    BANKING MANAGEMENT SYSTEM");
  \xB2\xB2\xB2\xB2\xB2\xB2\xB2\);
  printf("\n\t\t[1] Create a new account\n\t\t[2] Update information of existing account\n\t\t[3]
Transactions \verb|\n\t\t| 4] Check the details of existing account \verb|\n\t\t| 5] Remove existing account \verb|\n\t\t| 6]
View customer's list\n\t\t[7] ATM Feature\n\t\t[8] Exit\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:atm();
   break;
   case 8:close();
   break;
 }
}
int main()
{
 char pass[10],password[10]="pass";
 int i=0;
 printf("\n\n\n\t\t\t\t
 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(". ");
  }
  printf("\n");
      system("pause");
                     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(100000000);
          system("cls");
           goto login_try;}
    }
    return 0;
}
//ATM FEATURE - nsb code-projects
int atm(){
  //Functions
void mainMenu();
void checkBalance(float balance);
float moneyDeposit(float balance);
float moneyWithdraw(float balance);
void menuExit();
```

```
void errorMessage();
int login(void)
{
float number = 1234;
int pass;
printf("\n\n\t\tEnter the PIN No:");
scanf("%d", &pass);
if (pass == number)
  {
   printf("\n\nPIN Matched!\nLOADING");
    for(i=0;i<=6;i++)
    {
      fordelay(10000000);
      printf(".");
    }
    system("cls");
   mainMenu();
  }
else
  {
   printf("Invalid\n Try Again");
   login();
return 0;
}
```

```
//Main Code
    //Local Declarations
  int option;
  float balance = 15000.00;
  int choose;
  bool again = true;
 // insert code here...
  login();
  while (again) {
  printf("=-=-=-\n");
  printf("Your Selection:\t");
  scanf("%d", &option);
  system("CLS");
    switch (option) {
      case 1:
        checkBalance(balance);
        break;
      case 2:
        balance = moneyDeposit(balance);
        break;
```

```
case 3:
    balance = moneyWithdraw(balance);
    break;
  case 4:
    menuExit();
    return 0;
  default:
    errorMessage();
    break;
}
printf("=-=-=-\n");
printf("Would you like to do another transaction:\n");
printf("< 1 > Yes\n");
printf("< 2 > No\n");
scanf("%d", &choose);
system("CLS");
if (choose == 2) {
  again = false;
  menuExit();
}else{
```

```
mainMenu();
       }
}
  return 0;
}//main code
//Functions
void mainMenu() {
  printf("\n\n\t\t=======\n\n");
  printf("\n\t\t----Please choose one of the options below----\n");
  printf("\n\t\t<1> Check Balance\n");
  printf("\n\t< 2 > Deposit\n");
  printf("\n\t< 3 > Withdraw\n");
  printf("\n\t< 4 > Exit\n\n");
}//Main Menu
void checkBalance(float balance) {
  printf("You Choose to See your Balance\n");
```

```
printf("****Your Available Balance is: $%.2f\n\n", balance);
}//Check Balance
float moneyDeposit(float balance) {
  float deposit;
  printf("You choose to Deposit a money\n");
  printf("$$$$Your Balance is: $%.2f\n\n", balance);
  printf("****Enter your amount to Deposit\n");
  scanf("%f", &deposit);
  balance += deposit;
  printf("****Your New Balance is: $%.2f\n\n", balance);
  return balance;
}//money deposit
float moneyWithdraw(float balance) {
  float withdraw;
  bool back = true;
  printf("You choose to Withdraw a money\n");
  printf("$$$$Your Balance is: $%.2f\n\n", balance);
```

```
while (back) {
  printf("Enter your amount to withdraw:\n");
  scanf("%f", &withdraw);
  if (withdraw < balance) {</pre>
    back = false;
    balance -= withdraw;
    printf("$$$$Your withdrawing money is: $%.2f\n", withdraw);
    printf("****Your New Balance is: $%.2f\n\n", balance);
  }
    else {
    printf("+++You don't have enough money+++\n");
    printf("Please contact to your Bank Customer Services\n");
    printf("****Your Balance is: $%.2f\n\n", balance);
  }
  }
  return balance;
}//money withdraw
void menuExit() {
```

```
printf("------\n");
printf("-----\n");
printf("-----\n");
printf("-----\n");
printf("-----\n");

}//exit menu

void errorMessage() {;
    printf("+++!!!You selected invalid number!!!+++\n");
}
```

SAMPLE INPUT & OUTPUT:



BANKING MANAGEMENT SYSTEM

WELCOME TO THE MAIN MENU

- [1] Create a new account
 [2] Update information of existing account
 [3] Transactions
 [4] Check the details of existing account
 [5] Remove existing account
 [6] View customer's list
 [7] ATM Feature
 [8] Exit

==== ADD RECORD ====

Enter your choice:

Enter today's date(mm/dd/yyyy):01/21/2022 Enter the account number:512004 Enter the name:S.S.Vasanthan Enter the date of birth(mm/dd/yyyy):05/01/2004 Enter the age:18 Enter the address:12, nehru nagar, chennai. Enter the citizenship number: Enter the phone number:

```
Enter the name:S.S.Vasanthan
Enter the date of birth(mm/dd/yyyy):05/01/2004
Enter the age:18
Enter the address:12,nehru nagar,chennai.
Enter the citizenship number:
Enter the phone number: 189441458
Enter the amount to deposit:$54
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:
```

Account NO.:512004
Name:S.S.Vasanthan
DOB:5/1/2004
Age:18
Address:12,nehru
Citizenship No:nagar,chennai.
Phone number:189441458
Type Of Account:1
Amount deposited:\$ 54.00
Date Of Deposit:5/13/2018

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

```
ACC. NO. NAME ADDRESS PHONE

3636 mark esp 9875454545
12345 brendan esppy 7465552120
512004 S.S.Vasanthan 12,nehru 189441458

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

RESULT:

The given program is verified as 'BANK MANAGEMENT SYSTEM'.