

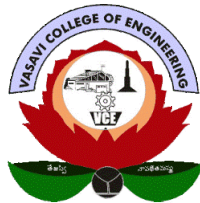
A Course Project Report  
on  
**BANKING SYSTEM**

**Course:** Programming for Problem Solving  
**Class:** B.E CSE(AI&ML) Semester: I

By

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# INTRODUCTION

This is a Small Mini-Project Based on BANKING SYSTEM written in C language. It has Covered maximum all the major concepts of C language.

## LIST OF FEATURES

This Project provides quite a few features. We can Deposit and withdraw the money directly by just entering the credentials of the account. We can even transfer Money to others and even check our current balance time to time. We even have the facility to Change the Password whenever required.

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# FUNCTIONS USED

- `printf()`-formats and prints characters and values to stdout.
- `scanf()`-reads data from stdin into locations given by arg-list.
- `system()`-passes string to the system command analyzer.
- `fopen()`- opens the specific file.
- `fwrite()`- writes up to count items of size length from buffer to stream.
- `strcat()`- concatenates string 2 to string 1.
- `fclose()`-closes the specified stream.
- `fread()`- reads up to count items of size length from the input stream,and stores them in buffer.
- `strcmp()`-compares the value of string 1to string 2.
- `sizeof()`- used to calculate the size in bytes that a data type occupies in the computer's memory.
- `strcpy()`-copies string 2 into string 1.
- `switch()`-tests a value and compares it with Multiple cases.

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# SOURCE CODE

```
/******MINI PROJECT ON BANKING SYSTEM IN C  
LANGUAGE******/
```

```
/******developed by- VAMSI KRISHNA DESINNEDI(1602-21-748-059)******/
```

```
//Header Files
```

```
#include <stdio.h>
```

```
#include <string.h>
```

```
#include <stdlib.h>//for using system("clear")function
```

```
//Structure to store user Data
```

```
struct user
```

```
{
```

```
    char phn_no[15];
```

```
    char ac_no[20];
```

```

        char pwd[20];

        float bal;

    };

//Driver Code

void main()

{

    struct user user1,user2;

    int cnst=1;

    char fname[15],phn[15],pass[20],phn2[15];

    FILE *fp1,*fp2;

    int opt,ch,amt;

    printf("*****WELCOME TO DVK ONLINE BANKING SYSTEM*****\n");

    printf("-----");

    printf("\nIf NEW USER, To create a BANK ACCOUNT -----> enter 1");

    printf("\nIf already a USER, To LOG IN -----> enter 2");

    printf("\n\nENTER YOUR CHOICE..\n");

    scanf("%d",&opt);

    if(opt == 1)

    {

```

```

system("clear");//Function to Clear the output Screen (or) Console

printf("\nEnter the Account Number you want(only digits are advised):");

scanf("%s",user1.ac_no);

printf("Enter your Phone number(Excluding Country Code):");

scanf("%s",user1.phn_no);

printf("Enter your Password(Can be digits and characters):");

scanf("%s",user1.pwd);

user1.bal=0;//initially balance will be 0

strcpy(fname,user1.phn_no);

fp1=fopen(strcat(fname,".txt"),"w");//Phone Number as file Name

fwrite(&user1,sizeof(user1),1,fp1);

if(fwrite != 0)

{

    printf("\n\nSuccesfully registered...!!");

}

}

if(opt == 2)

{

    system("clear");

```

```

printf("\nEnter Registerd Phone Number:");

scanf("%s",phn);

printf("Enter Password:");

scanf("%s",pass);

fp1 = fopen(strcat(phn,".txt"),"r");

if(fp1 == NULL)

{

    printf("NO DATA ATTACHED WITH THE ENTERED PHONE NUMBER..\nCHECK
THE ENTERED PHONE NUMBER");

}

else

{

    fread(&user1,sizeof(struct user),1,fp1);

    fclose(fp1);

    if(!strcmp(pass,user1.pwd))

        //Checking whether the password set before and entered now are
same or not

        {

            while(cnst == 1)

                {

```

```

system("clear");

printf("\n!!!!*****WELCOME*****!!!!");

printf("\nHELLO, %s",user1.phn_no);

printf("\nFor knowing CURRENT BALANCE -----> enter 1");

printf("\nFor DEPOSIT -----> enter 2");

printf("\nFor WITHDRAW -----> enter 3");

printf("\nFor ONLINE TRANSACTIONS -----> enter 4");

printf("\nFor PASSWORD CHANGE -----> enter 5");

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

printf("\n\nEnter Any option from the Above mentioned

list:\n");

scanf("%d",&ch);

switch(ch)

{

    case 1://For Checking Current Balance

        printf("CURRENT BALANCE is Rs.

%.2f",user1.bal);

        break;

    case 2://For Deposit of Money

        system("clear");

```



DEPOSIT:");

```
printf("Enter the amount you want to
```

```
scanf("%d",&amt);
```

```
user1.bal += amt;
```

```
fp1= fopen(phn,"w");
```

```
fwrite(&user1,sizeof(struct user),1,fp1);
```

```
if(fwrite !=0)
```

```
{
```

```
    printf("\n\nDEPOSITION OF Rs.%d is
```

SUCCESSFUL",amt);

```
}
```

```
fclose(fp1);
```

```
break;
```

```
case 3://For Withdraw of Money
```

```
system("clear");
```

```
printf("Enter the amount you want to
```

WITHDRAWL:");

```
scanf("%d",&amt);
```

```
if(amt % 500 != 0)
```

```
{
```

Multiples of 500");

AND TRY AGAIN!!!");

SUCCESSFUL",amt);

```
printf("\nPlease enter the Amount in
```

```
}
```

```
else if(amt>user1.bal)
```

```
{
```

```
printf("\nINSUFFICIENT BALANCE... CHECK
```

```
}
```

```
else
```

```
{
```

```
user1.bal -= amt;
```

```
fp1 = fopen(phn,"w");
```

```
fwrite(&user1,sizeof(struct user),1,fp1);
```

```
if(fwrite !=0)
```

```
{
```

```
printf("\n\nWITHDRAWAL of Rs.%d is
```

```
}
```

```
fclose(fp1);
```

```
}
```

```

        break;

case 4://For transfer of Money

        printf("ENTER THE REGISTERED PHONE
NUMBER OF THE PERSON TO WHOM YOU WANT TO TRANSFER:");

        scanf("%s",phn);

        printf("HOW MUCH AMOUNT DO YOU
WANT TO TRANSFER:");

        scanf("%d",&amt);

        if(amt > user1.bal)

        {

                printf("\n*****INSUFFICIENT
BALANCE*****");

        }

        else

        {

                fp2 = fopen(strcat(phn,".txt"),"r");

                if(fp2==NULL)

                {

                        printf("\n!!!ENTER A REGISTERED
A NUMBER!!!");

                }

```

```

else

{

fread(&user2,sizeof(struct

user),1,fp2);

fclose(fp2);

user2.bal += amt;

fp2 = fopen(phn,"w");

fwrite(&user2,sizeof(struct

user),1,fp2);

if(fwrite != 0)

{

printf("\nPHONE

NUMBER:%s",user2.phn_no);

printf("\nYour

trasfer is completed\nYou have trasnfered Rs.%d to %s",amt,user2.phn_no);

fclose(fp2);

user1.bal -= amt;

strcpy(fname,user1.phn_no);

fp1 =

fopen(strcat(fname,".txt"),"w");

```

```
fwrite(&user1,sizeof(struct user),1,fp1);

fclose(fp1);

}

}

}

break;

case 5://For Changing Password

printf("\n\nEnter the CURRENT
PASSWORD:");

scanf("%s",pass);

if(!strcmp(pass,user1.pwd))//Comparing
passwords

{

printf("\n\nEnter the NEW
PASSWORD:");

scanf("%s",pass);

strcpy(user1.pwd,pass);

strcpy(fname,user1.phn_no);

fp1 =

fopen(strcat(fname,".txt"),"w");
```

```

fwrite(&user1,sizeof(struct
user),1,fp1);

fclose(fp1);

printf("\nPASSWORD HAS BEEN
SUCCESFULLY CHANGED..!!");

}

else

{

printf("\nSORRY!!! ENTER CORRECT
PASSWORD");

}

default:

break;

}

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

printf("\nIf you want to do more Transactions\nENTER -----
> 1\nelse ENTER -----> 0:");

scanf("%d",&cnst);

}

}

else

```

```

        {

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

            printf("*****INVALID PASSWORD*****");

        }

    }

}

if(opt!=1&&opt!=2)

{

    printf("!!.....Enter Only from the above mentioned List.....!!");

}

printf("\n^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^");

printf("\n*****THANKYOU FOR BANKING WITH US*****");

}

```

END OF CODE

---



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# TEST CASES

- This is the output screen the User gets when the user run's and compile's the above Source code:

```
*****WELCOME TO DVK ONLINE BANKING SYSTEM*****
-----
If NEW USER, To create a BANK ACCOUNT -----> enter 1
If already a USER, To LOG IN -----> enter 2

ENTER YOUR CHOICE..
1
```

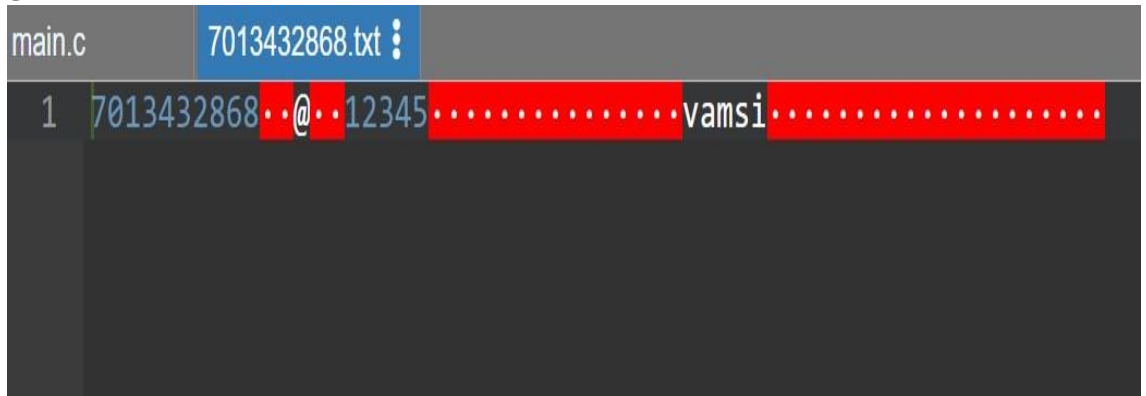
- After the User chooses the 1<sup>st</sup> option as his/her choice, he/she enters the details and the account is generated:

```
Enter the Account Number you want(only digits are advised):12345
Enter your Phone number(Excluding Country Code):7013432868
Enter your Password(Can be digits and characters):vamsi

Succesfully registered...!!
^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
*****THANKYOU FOR BANKING WITH US*****
```

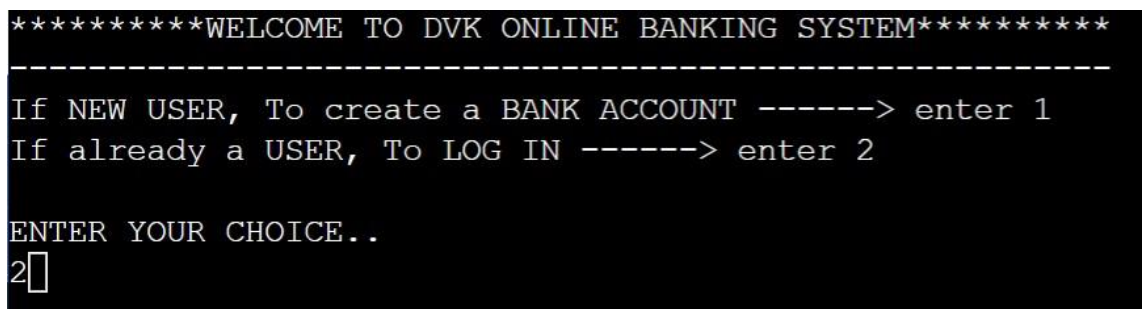


- A New text file with the phone number as the filename has been generated:



```
main.c 7013432868.txt :
1 7013432868@12345.....vamsi.....
```

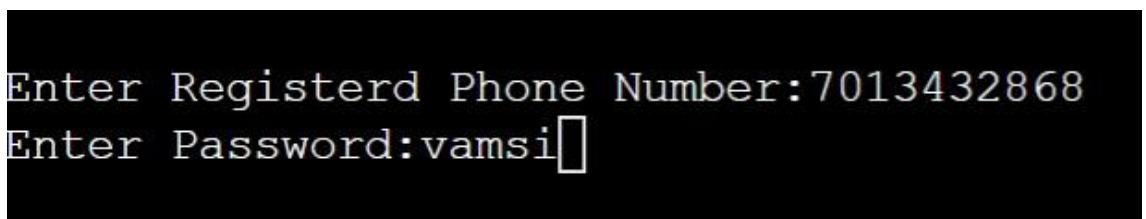
- If the User has Chosen 2<sup>nd</sup> Option:



```
*****WELCOME TO DVK ONLINE BANKING SYSTEM*****
-----
If NEW USER, To create a BANK ACCOUNT -----> enter 1
If already a USER, To LOG IN -----> enter 2

ENTER YOUR CHOICE..
2
```

- The Following Screen occurs and the user enters login credentials.



```
Enter Registered Phone Number:7013432868
Enter Password:vamsi
```

- If the login credentials are correct then the output screen displays:

```

!!!!!!*****WELCOME*****!!!!!!
HELLO, 7013432868
For knowing CURRENT BALANCE -----> enter 1
For DEPOSIT -----> enter 2
For WITHDRAW -----> enter 3
For ONLINE TRANSACTIONS -----> enter 4
For PASSWORD CHANGE -----> enter 5
-----

Enter Any option from the Above mentioned list:
1

```

- If the Login Credentials were wrong:

1.Entered Phone Number is Wrong:

```

Enter Registered Phone Number:7013432866
Enter Password:vamsi
NO DATA ATTACHED WITH THE ENTERED PHONE NUMBER..
CHECK THE ENTERED PHONE NUMBER
^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
*****THANKYOU FOR BANKING WITH US*****

```

2.Entered Password is Wrong:

```

Enter Registered Phone Number:7013432868
Enter Password:vamsii
-----

*****INVALID PASSWORD*****
^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
*****THANKYOU FOR BANKING WITH US*****

```

- If the Entered Login Credentials are right and the user chooses option 1:

```
!!!!!!*****WELCOME*****!!!!!!
HELLO, 7013432868
For knowing CURRENT BALANCE -----> enter 1
For DEPOSIT -----> enter 2
For WITHDRAW -----> enter 3
For ONLINE TRANSACTIONS -----> enter 4
For PASSWORD CHANGE -----> enter 5
-----

Enter Any option from the Above mentioned list:
1
CURRENT BALANCE is Rs. 0.00
-----

If you want to do more Transactions
ENTER -----> 1
else ENTER -----> 0:[]
```

- If the User Chooses Option 2:

```
!!!!!!*****WELCOME*****!!!!!!
HELLO, 7013432868
For knowing CURRENT BALANCE -----> enter 1
For DEPOSIT -----> enter 2
For WITHDRAW -----> enter 3
For ONLINE TRANSACTIONS -----> enter 4
For PASSWORD CHANGE -----> enter 5
-----

Enter Any option from the Above mentioned list:
2[]
```

- It Displays a message saying that Enter The Amount You Want to Deposit:

```
Enter the amount you want to DEPOSIT:10000
```

```
DEPOSITION OF Rs.10000 is SUCCESSFUL
```

```
-----  
If you want to do more Transactions
```

```
ENTER -----> 1
```

```
else ENTER -----> 0: 
```

- If the user Chooses Option 3:

```
!!!!!!*****WELCOME*****!!!!!!
```

```
HELLO, 7013432868
```

```
For knowing CURRENT BALANCE -----> enter 1
```

```
For DEPOSIT -----> enter 2
```

```
For WITHDRAW -----> enter 3
```

```
For ONLINE TRANSACTIONS -----> enter 4
```

```
For PASSWORD CHANGE -----> enter 5
```

```
-----
```

```
Enter Any option from the Above mentioned list:
```

```
3 
```

- The Following Screen is Followed After Option 3 Is chosen:

1.If Entered Amount is not multiple of 500:

```
Enter the amount you want to WITHDRAWL:123
```

```
Please enter the Amount in Multiples of 500
```

```
-----
```

```
If you want to do more Transactions
```

```
ENTER -----> 1
```

```
else ENTER -----> 0: 
```

2.If Entered Amount is greater than The Current Balance:

```
Enter the amount you want to WITHDRAWL:11000

INSUFFICIENT BALANCE... CHECK AND TRY AGAIN!!!

-----

If you want to do more Transactions
ENTER -----> 1
else ENTER -----> 0:[]
```

- 3.If the withdrawal amount is multiple of 500 and is in the scope of  
Current balance, you are eligible for withdrawal:

```
Enter the amount you want to WITHDRAWL:1000

WITHDRAWL of Rs.1000 is SUCCESSFUL

-----

If you want to do more Transactions
ENTER -----> 1
else ENTER -----> 0:[]
```

- If 4<sup>th</sup> Option is Chosen:

```
!!!!!!*****WELCOME*****!!!!!!
HELLO, 7013432868
For knowing CURRENT BALANCE -----> enter 1
For DEPOSIT -----> enter 2
For WITHDRAW -----> enter 3
For ONLINE TRANSACTIONS -----> enter 4
For PASSWORD CHANGE -----> enter 5
-----

Enter Any option from the Above mentioned list:
4
```

- 1.If the Number is not registered with the bank:

```

!!!!*****WELCOME*****!!!!
HELLO, 7013432868
For knowing CURRENT BALANCE -----> enter 1
For DEPOSIT -----> enter 2
For WITHDRAW -----> enter 3
For ONLINE TRANSACTIONS -----> enter 4
For PASSWORD CHANGE -----> enter 5
-----

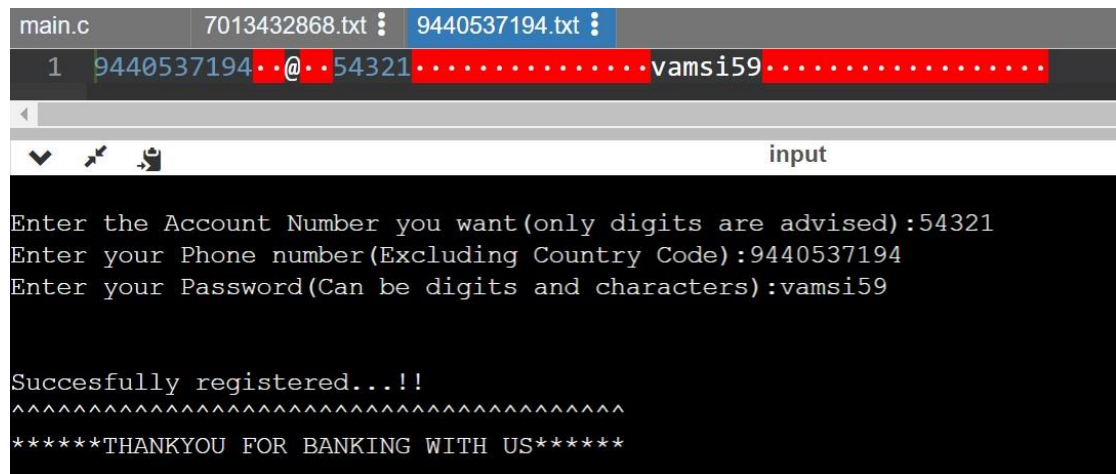
Enter Any option from the Above mentioned list:
4
ENTER THE REGISTERED PHONE NUMBER OF THE PERSON TO WHOM YOU WANT TO TRANSFER:9440537194
HOW MUCH AMOUNT DO YOU WANT TO TRANSFER:2000

!!!ENTER A REGISTERED A NUMBER!!!
-----

If you want to do more Transactions
ENTER -----> 1
else ENTER -----> 0:

```

So, first create a new user same as done earlier:



```

main.c 7013432868.txt : 9440537194.txt :
1 9440537194...@...54321.....vamsi59.....

Enter the Account Number you want(only digits are advised):54321
Enter your Phone number(Excluding Country Code):9440537194
Enter your Password(Can be digits and characters):vamsi59

Succesfully registered...!!
^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
*****THANKYOU FOR BANKING WITH US*****

```

2. Even if number is registered, the amount you want to transfer is more than the balance:



```

!!!!*****WELCOME*****!!!!
HELLO, 7013432868
For knowing CURRENT BALANCE -----> enter 1
For DEPOSIT -----> enter 2
For WITHDRAW -----> enter 3
For ONLINE TRANSACTIONS -----> enter 4
For PASSWORD CHANGE -----> enter 5
-----

Enter Any option from the Above mentioned list:
4
ENTER THE REGISTERED PHONE NUMBER OF THE PERSON TO WHOM YOU WANT TO TRANSFER:9440537194
HOW MUCH AMOUNT DO YOU WANT TO TRANSFER:15000

*****INSUFFICIENT BALANCE*****
-----

If you want to do more Transactions
ENTER -----> 1
else ENTER -----> 0:

```

3.If the number entered is registered and the amount is in the limit of current Balance:

```

!!!!*****WELCOME*****!!!!
HELLO, 7013432868
For knowing CURRENT BALANCE -----> enter 1
For DEPOSIT -----> enter 2
For WITHDRAW -----> enter 3
For ONLINE TRANSACTIONS -----> enter 4
For PASSWORD CHANGE -----> enter 5
-----

Enter Any option from the Above mentioned list:
4
ENTER THE REGISTERED PHONE NUMBER OF THE PERSON TO WHOM YOU WANT TO TRANSFER:9440537194
HOW MUCH AMOUNT DO YOU WANT TO TRANSFER:1000

PHONE NUMBER:9440537194
Your trasfer is completed
You have trasnfered Rs.1000 to 9440537194
-----

If you want to do more Transactions
ENTER -----> 1
else ENTER -----> 0:

```

- The User has chosen 5<sup>th</sup> Option
- 1.If entered WRONG PASSWORD:

```

!!!!!!*****WELCOME*****!!!!!!
HELLO, 7013432868
For knowing CURRENT BALANCE -----> enter 1
For DEPOSIT -----> enter 2
For WITHDRAW -----> enter 3
For ONLINE TRANSACTIONS -----> enter 4
For PASSWORD CHANGE -----> enter 5
-----

Enter Any option from the Above mentioned list:
5

Enter the CURRENT PASSWORD:vamsii

SORRY!!! ENTER CORRECT PASSWORD
-----

If you want to do more Transactions
ENTER -----> 1
else ENTER -----> 0:

```

2.If entered CORRECT PASSWORD:

```

!!!!!!*****WELCOME*****!!!!!!
HELLO, 7013432868
For knowing CURRENT BALANCE -----> enter 1
For DEPOSIT -----> enter 2
For WITHDRAW -----> enter 3
For ONLINE TRANSACTIONS -----> enter 4
For PASSWORD CHANGE -----> enter 5
-----

Enter Any option from the Above mentioned list:
5

Enter the CURRENT PASSWORD:vamsi

Enter the NEW PASSWORD:vamsi59

PASSWORD HAS BEEN SUCCESFULLY CHANGED...!!
-----

If you want to do more Transactions
ENTER -----> 1
else ENTER -----> 0:

```

- If the User, has not entered either 1 or 2 at the starting:



```
*****WELCOME TO DVK ONLINE BANKING SYSTEM*****
-----
If NEW USER, To create a BANK ACCOUNT -----> enter 1
If already a USER, To LOG IN -----> enter 2

ENTER YOUR CHOICE..
3
```

The Output Screen Would Look Like:

```
*****WELCOME TO DVK ONLINE BANKING SYSTEM*****
-----
If NEW USER, To create a BANK ACCOUNT -----> enter 1
If already a USER, To LOG IN -----> enter 2

ENTER YOUR CHOICE..
3
!!.....Enter Only from the above mentioned List.....!!
^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
*****THANKYOU FOR BANKING WITH US*****
```

```
-----
-----
```

# **CONCLUSION**

**I have understood how all the concepts in C can be used in real life applications, even though it takes time to write Program it will be best option in going time. It reduces time in future and even Paper Work and data can be stored for long run and increases productivity and there is very less chances of mistakes happening. Through this project, I have learned the actual purpose of all the topics.**

# **FUTURE SCOPE**

Even though there are better programs than this, used in real life. This Project is simple and clear that it would be easily habituated to the customers since it is very easy to understand. Customer's Satisfaction and comfort is the first priority.

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