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**MINI PROJECT REPORT
ON
“AXIOM BANKING MANAGEMENT SYSTEM”**

**BACHELOR OF ENGINEERING
IN
INFORMATION SCIENCE AND ENGINEERING**

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DECLARATION

We hereby declare that the entire mini project work embodied in this dissertation has been carried out by us and no part has been submitted for any degree or diploma of any institution previously.

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TABLE OF CONTENTS

Chapter :1 ACKNOWLEDGEMENT

Chapter :2 INTRODUCTION

2.1 Itroduction to c

2.2 Problem Statement

Chapter:3 SYSTEM REQUIREMENT

3.1 Hardware Requirement

3.2 Software Requirement

Chapter:4 SYSTEM DESIGN

4.1 Activities of DESIGN Process/System Architecture

Chapter:5 PROJECT MODULE DESCRIPTION/IMPLEMENTATION

Chapter:6 CONCLUSION

6.1 conclusion

Chapter:7 REFERENCE

7.1 Reference

Chapter:1 ACKNOWLEDGEMENT

ACKNOWLEDGEMENT

The dream of every engineering student is to become a competent and successful engineer in future and we are not at all exceptions. One reason behind the success of project is our sincere efforts, hard work and talent , mean while , the other main reason is the current assistance , guidance suggestions and blessings of many people. We posses a special gratitude towards them and it is our duty to express it through words.

It gives us immense pleasure to prepare this project report on the “AXIOM BANKING MANAGEMENT SYSTEM” as a mini project for the subject “C PROGRAMMING FOR PROBLEM SOLVING”.

We would like to thank our project guides Mr. MANOHAR R and others faculty from Dept of ISE for their consultative help and constructive suggestions through the course of this project. We would like to extend our gratitude to our HOD Dr. P VIJAY KARTHIK.

Finally , we would also like to thank our parents , friends and everybody who are involve in this project.

CHAPTER 2 - Introduction

2.1 Introduction to C

C is a general-purpose, procedural computer programming language supporting structured programming, lexical variable scope, and recursion, with a static type system. By design, C provides constructs that map efficiently to typical machine instructions. It has found lasting use in applications previously coded in assembly language. Such applications include operating systems and various application software for computer architectures that range from supercomputers to PLCs and embedded systems.

A successor to the programming language *B*, C was originally developed at Bell Labs by Dennis Ritchie between 1972 and 1973 to construct utilities running on Unix. It was applied to re-implementing the kernel of the Unix operating system. During the 1980s, C gradually gained popularity. It has become one of the most widely used programming languages, with C compilers from various vendors available for the majority of existing computer architectures and operating systems. C has been standardized by the ANSI since 1989 (ANSI C) and by the International Organization for Standardization (ISO).

C is an imperative procedural language. It was designed to be compiled to provide low-level access to memory and language constructs that map efficiently to machine instructions, all with minimal runtime support. Despite its low-level capabilities, the language was designed to encourage cross-platform programming. A standards-compliant C program written with portability in mind can be compiled for a wide variety of computer platforms and operating systems with few changes to its source code.

2.2 Problem statement

This system provides the basic services to manage bank accounts at a bank. A client opens account a branch. Each account is uniquely identified by account number; it has a balance and a credit or overdraft limit. There are many types of accounts such as savings accounts, current accounts, fixed accounts. Bank management system would be able to maintain information and able to keep the records of that particular events. The services are:- 1. taking deposits from the customers and issuing current or checking accounts and savings accounts to individual and business. 2. Extending loans to individuals and business. 3. Cashing amount. 4. all transactions will be updated automatically by using the information stored in record.

Chapter 3 - System requirements

3.1 Hardware requirement

C programming can be basically run on any workstation which has UNIX system, MS-DOS

system, Windows system, UNIX like Solaris, IRIX, GNU/Linux, BSD, Mac OS, Fedora.

All u need is as a minimum, you should have at least amount space for data and a processing RAM of good quality requirement is enough run a c programming in a system. A keyboard for a system and mouse is a basic necessity for handling a system.

3.2 Software requirement

There is a large amount of software on which we can run a C program. To construct a C program all we need is a **text editor** and a **C compiler**. All we need the files we create with our editor are called the source files and they contain the program source codes. The source files for C programs are typically named with the extension ".c".

The source code written in source file is the human readable source for your program. It needs to be "compiled", into machine language so that your CPU can actually execute the program as per the instructions given. The compiler compiles the source codes into final executable programs. The most frequently used and free available compiler is the turbo C++, otherwise you can have compilers either from HP or Solaris if you have the respective operating systems. We have used code blocks IDE.

Chapter:4 SYSTEM DESIGN

4.1 Activities of DESIGN Process/System Architecture

By the end of this project, you will create a fully functioning “AXIOM BANKING MANAGEMENT SYSTEM” on a console application. First we have to enter password to login into main menu. we have five functions (1. Create new account 2. Transactions 3. View customer's list 4. Loan interest calculation 5. Exit) in main menu. You can enter in each function through enter your choice option and do the specific task.

SYNTAX USED IN CONSTRUCTION OF THIS PROJECT:

1. Introduction & use of struct
2. Use of function for specific task
3. Use of for loops
4. While loops & Do-While loops
5. Use of file pointer
6. Arrays
7. Create a fully running AXIOM BANKING MANAGEMENT SYSTEM

Chapter:5 PROJECT MODULE DESCRIPTION/ IMPLEMENTATION

```
#include<stdio.h>

#include<stdlib.h>

#include<windows.h>

#include<conio.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;

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\t\xB2\xB2\xB2\ ADD RECORD \xB2\xB2\xB2\xB2");

    printf("\n\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/%d\n",&add.acc_no,add.name,&add.dob.month,&add.dob.day,&add.dob.year,&ad
d.age,add.address,add.citizenship,&add.phone,add.acc_type,&add.amt,&add.deposit.mon
th,&add.deposit.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(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
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.day,add.dob.year,add.age,a
dd.address,add.citizenship,add.phone,add.acc_type,add.amt,add.deposit.month,add.depo
sit.day,add.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.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("\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);
```

```
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 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.address,add.citizenship,&add.phone,add.acc_type,&add.amt,&add.deposit.month
,&add.deposit.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,"fixed2")==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.day,add.dob.year,add.age,a
dd.address,add.citizenship,add.phone,add.acc_type,add.amt,add.deposit.month,add.depo
sit.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,a
dd.address,add.citizenship,add.phone,add.acc_type,add.amt,add.deposit.month,add.depo
sit.day,add.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.day,add.dob.year,add.age,a
dd.address,add.citizenship,add.phone,add.acc_type,add.amt,add.deposit.month,add.depo
sit.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\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 close(void)

{

    printf("\n\n\nTHANK YOU! FOR BANKING WITH US");

    getch();

}

void interest()

{

    printf("TERMS AND CONDITION\nREAD ALL SCHEME RELATED DOCUMENTS\nCAREFULLY\nCOLLATERAL IS REQUIRED FOR LOAN\n MINIMUM 99999 AMOUNT\nMUST BE THERE IN YOUR ACCOUNT TO TAKE LOAN\n");

    printf("4 PERCENT INTEREST WILL BE TAKEN ON AMOUNT LESS THAN 500000\n7\nPERCENT INTEREST WILL BE TAKEN ON AMOUNT MORE  THAN 499999\n\n\n\n");

    int money,rate;

    float time;

    printf("enter loan amount: ");

    scanf("%d",&money);

    printf("enter time period in months: ");

    scanf("%f",&time);

    time=time/12.000;

    if(money<500000)

    {

        rate=4;

    }

```



```

else if(money>499999)
{
    rate=7;
}

float SI;

SI=(rate*time*money)/100.0;

printf("SIMPLE INTEREST: %f ",SI);

printf("\nEnter 1 for main menu and 0 to exit:");

scanf("%d",&main_exit);

if (main_exit==1)
{
system("cls");

    menu();

}

else if (main_exit==0)
{
    system("cls");

    close();}

    getch();

}

void menu(void)

{ int choice;

    system("cls");

    system("color 9");

    printf("\n\n\t\t\tWELCOME TO AXIOM BANKING SYSTEM");

    printf("\n\n\n\t\t\t WELCOME TO THE MAIN MENU");

    printf("\n\n\t\t1.Create new account\n\t\t2.For transactions\n\t\t3.View customer's
list\n\t\t4.LOAN INTEREST CALCULATION\n\t\t5.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:transact();  
    break;  
    case 3:view_list();  
    break;  
    case 4:interest();  
    break;  
    case 5:close();  
    break;  
}  
}  
int main()  
{  
    char pass[10],password[10]="axiom";  
    int i=0;  
    printf("\n\n\t\tEnter the password to login:");  
    scanf("%s",pass);  
    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;}

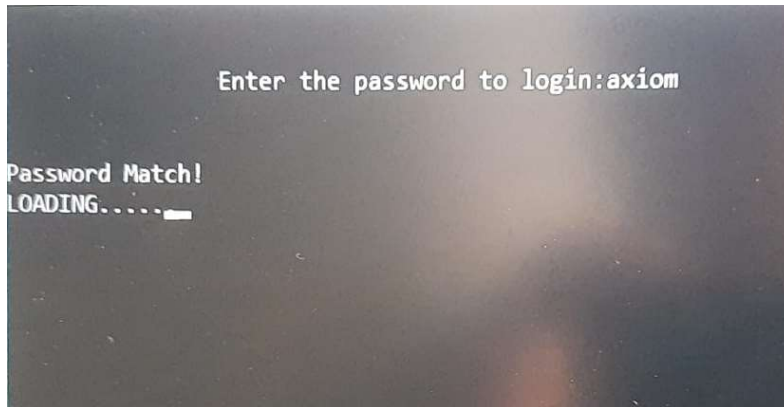
}

return 0;

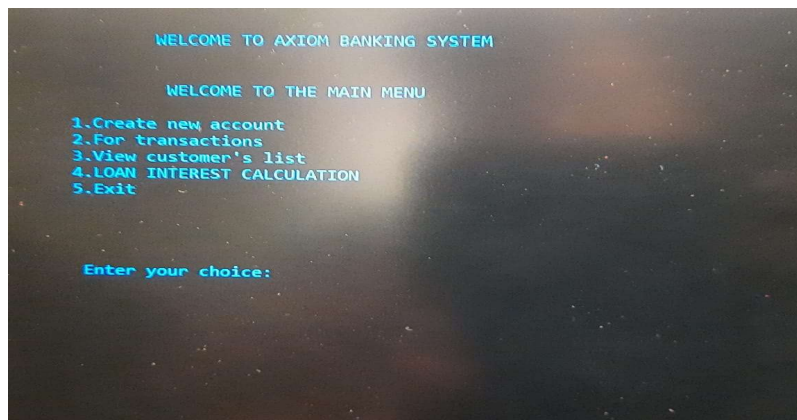
}
```

OUTPUTS:

THIS IS OPENING WINDOW: Here we have to enter password to login in to main menu.



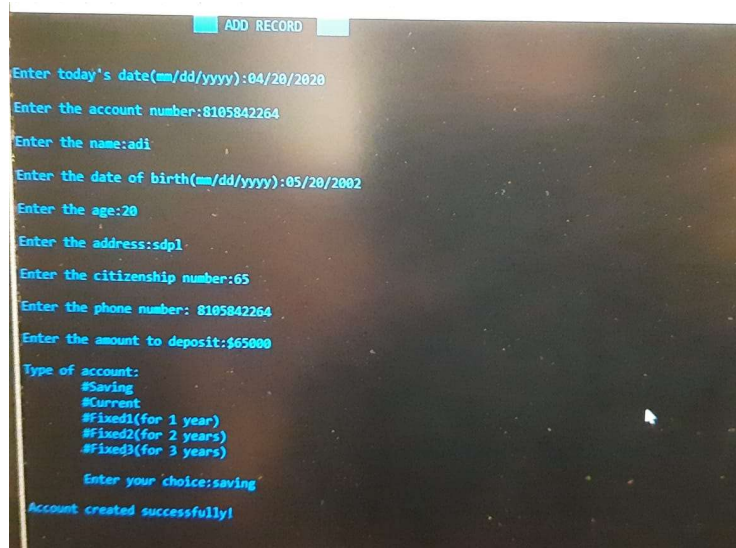
This is main menu of the program here you have to enter your choice



We have to enter 1 to go to create new account

There you can enter you details .

- SOME DETAILS ARE AS FOLLW:-
- NAME
- ACCOUNT NO
- CITIZENSHIP NO
- TYPE OF ACCOUNT



AFTER THAT RETURN TO MAIN MENU

ENTER 2 FOR TRANSACTIONS(DEPOSIT,WITHDRAW)

FOR DEPOSIT(CHOICE 1)

TO WITHDRAW(CHOICE 2)

```

Enter the account no. of the customer:8105842264

Do you want to
1.Deposit
2.Withdraw?

Enter your choice(1 for deposit and 2 for withdraw):1
Enter the amount you want to deposit:$ 95000

Deposited successfully!
Enter 1 to go to the main menu and 0 to exit:

```

```

Enter the account no. of the customer:8105842264

Do you want to
1.Deposit
2.Withdraw?

Enter your choice(1 for deposit and 2 for withdraw):2
Enter the amount you want to withdraw:$ 2000

Withdrawn successfully!
Enter 1 to go to the main menu and 0 to exit:

```

AFTER THAT RETURN TO MAIN MENU

ENTER 3 TO VIEW CUSTOMER LIST

ALL THE CUSTOMERS AND THEIR DETAILS WILL BE SHOWN

THE IMAGE BELOW SHOWS THE CUSTOMER LIST WINDOW

```

CUSTOMER LIST
Account NO.:789654123
Name:vinay
DOB:0/0/0
Age:0
Address:kumar
Citizenship No:145
Phone number:845751256
Type Of Account:savings
Amount deposited:$ 4469422.00
Date Of Deposit:12/11/1799

Account NO.:7854
Name:vinay
DOB:45/48/8789
Age:45
Address:mkiju
Citizenship No:78454
Phone number:12546
Type Of Account:current
Amount deposited:$ 12365.00
Date Of Deposit:12/11/1799

Account NO.:--1240401131
Name:vinay
DOB:3/2/2002
Age:19
Address:myit
Citizenship No:65
Phone number:7349533461
Type Of Account:savings
Amount deposited:$ 65555.00
Date Of Deposit:12/11/1799

Account NO.:--484092328
Name:adi
DOB:5/20/2002
Age:20
Address:sdpl
Citizenship No:65
Phone number:8105842264
Type Of Account:saving
Amount deposited:$ 160000.00
Date Of Deposit:4/20/2020

```

AFTER THAT RETURN TO MAIN MENU

ENTER 4 TO CALCULATE LOAN INTEREST

PLEASE READ THE TERMS AND CONDITION CAREFULLY

ENTER AMOUNT AND TIME(IN MONTHS) FOR WHICH YOU HAVE TO TAKE LOAN

THE BELOW IMAGE SHOWS THE INTEREST CALCULATION OF A USER WHOSE AMOUNT IS 10000000 AND TAKEN LOAN FOR 5 MONTHS.

```

TERMS AND CONDITION
READ ALL SCHEME RELATED DOCUMENTS CAREFULLY
COLLATERAL IS REQUIRED FOR LOAN
MINIMUM 99999 AMOUNT MUST BE THERE IN YOUR ACCOUNT TO TAKE LOAN
4 PERCENT INTEREST WILL BE TAKEN ON AMOUNT LESS THAN 500000
7 PERCENT INTEREST WILL BE TAKEN ON AMOUNT MORE THAN 499999

enter loan amount: 10000000
enter time period in months: 5
SIMPLE INTEREST: 291666.656250
Enter 1 for main menu and 0 to exit:

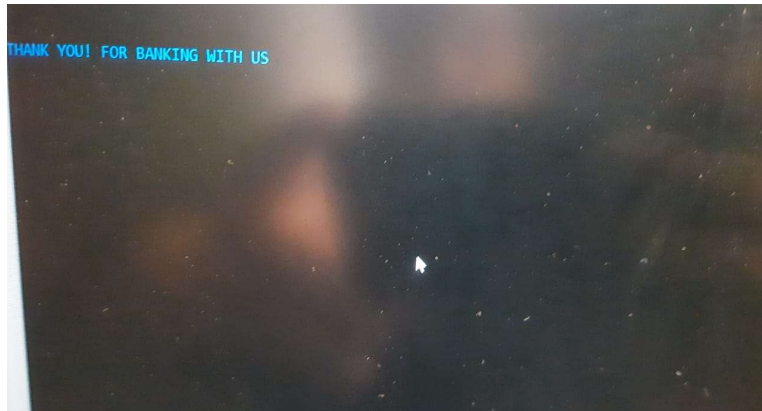
```

RETURN TO MAIN MENU BY ENTERING 1

AFTER THAT YOU CAN CHOOSE EXIT BUTTON FROM MAIN MENU BY ENTERING 5

A MESSAGE SAYING THANK YOU! FOR BANKING WITH US WILL APPEAR ON THE CONSOLE WINDOW

THE IMAGE BELOW SHOWS THE MESSAGE



Chapter:6 CONCLUSION

6.1 Conclusion

We have gained immense experience and knowledge in making this project we have noted our mistakes and strength throughout the project even a small line of code has given a boost to our confidence to code. we have noted our mistakes and learnt about new syntaxes in c.c is an old but very efficient language for beginners. we have enjoyed working together as a team and noted the advantage of team work. we have also taken help from faculty of our college. special gratitude to MANOHAR SIR and HOD P.VIJAYKARTHIK .

Chapter:7 REFERENCE

7.1 Reference

1. <https://www.codewithc.com/>
2. <https://www.learn-c.org/>
3. <https://www.coursera.org/courses?query=c%20programming>
4. <https://www.freecodecamp.org/>

