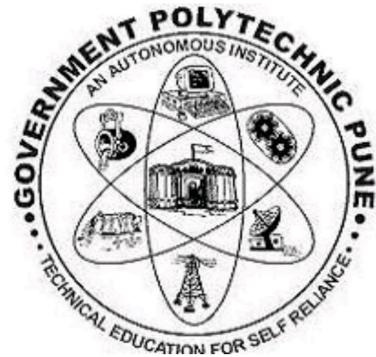


# **GOVERNMENT POLYTECHNIC PUNE**

(An Autonomous Institute Of Government of Maharashtra)



A MICRO-PROJECT REPORT

ON

## **“Bank Management System”**

Submitted by

Lembhe Prachi Balaso	2006070
Nimbolkar Akash Suresh	2006082
Pol Mayur Pramod	2006090
Varade Darshan Sanjay	2006127

**Department Of Computer Engineering**

**GOVERNMENT POLYTECHNIC PUNE**

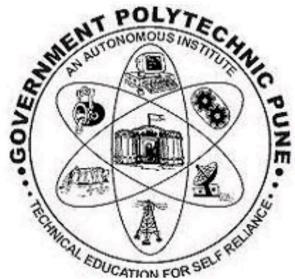
2021-2022

# **GOVERNMENT POLYTECHNIC PUNE**

(An Autonomous Institute Of Government of Maharashtra)

## **Department Of Computer Engineering**

**ACADEMIC YEAR : 2021-22**



## **CERTIFICATE**

This is to certified that the mini-project work entitled "**Bank Management System**" is a bona fide work carried out by

Lembhe Prachi Balaso	2006070
Nimbolkar Akash Suresh	2006082
Pol Mayur Pramod	2006090
Varade Darshan Sanjay	2006127

of class Second Year in partial fulfilment of the requirement for the completion of course- Object Oriented Programming: C++ (CM3104/CM388)-EVEN2020 of Diploma in Computer Engineering from Government Polytechnic , Pune. The report has been approved as it satisfies the academic requirements in respect of micro-project work prescribed for the course.

.....  
**Ms.Khushboo Sathawane**  
Micro-Project Guide

.....  
**Mr. Umesh Kokate**  
Head of the Department

.....  
**Dr.Vitthal Bandal**  
Principal  
Government Polytechnic Pune

## **MICRO-PROJECT REPORT**

### **Abstract:**

It's my privilege to acknowledge with deep sense of gratitude to my guide prof. khushboo sathawane for her valuable suggestions & guidance throughout my course of study that is data structure. The bank management system a c project undertaken as project is based on relevant technologies. The main aim of this project is to develop software for bank management system. This mini project is compiled in IDE using turbo c compiler. It's completely error less program. This project is consoled based application & created in c language.

<b>Sr. No</b>	<b>Index</b>
1	Introduction
2	Algorithm
3	Flow chart
4	Concepts used in a Micro project
5	Code of micro project
6	Output
7	Conclusion
8	Reference

## Introduction:

- Bank management using c program.
- This bank management system was made based on bank requirement.
- Some basic concepts we used, i.e structures, functions, switch cases, loops.
- Project developed for store bank info like deposit amount and withdraw amount in easy way also search info of any client.
- Source code for bank management is generally short &straight forward.

## Algorithm :-

- STEP 1 : START
- STEP 2: Declare a structure of customer with integer
- STEP 3 : Declare integer which contain account number ,char which contain name with array and array of size 50
- STEP 4 : Declare the function with argument and no return value .which is accept ,display, deposit , withdraw and one of these is a function is with argument and wth return value.
- STEP 5 : Declare s structure customer with size of array 20 with data variable and using integer data type with variable n, choice, account no., amount and index.
- STEP 6 : Display the statement “bank system” and print the “ number of customer records you want to enter ” and scan the value by user.
- STEP7 :Declare the function call i.e accept (data,n);
- STEP 8 :Take a while loop and display the “Bank system menu” with 1 as display all record , 2 as search a record , 3 as deposit amount and 4 as withdraw amount and 5 as exit.
- STEP 9 : Display “enter your choice” by user and scan it.
- STEP 10 :Take switch case (choice)
- STEP 11 :Compare with case 1 :
  - IF TRUE : Declare function call i.e display(data,n);
  - IF FALSE : then go to the next case
- STEP 12 : compare with case 2
  - If TRUE : display “enter the account number to search :” and scan it by User
- STEP 13 : In above statement if index ==1 and the case is true the then display “Record not found”. If case is false then Display the “account number and balance ”.
- STEP 14 : compare with case 4:
  - If TRUE : Then display “ enter the account number :” and scan it . Then display “enter amount to withdraw .”

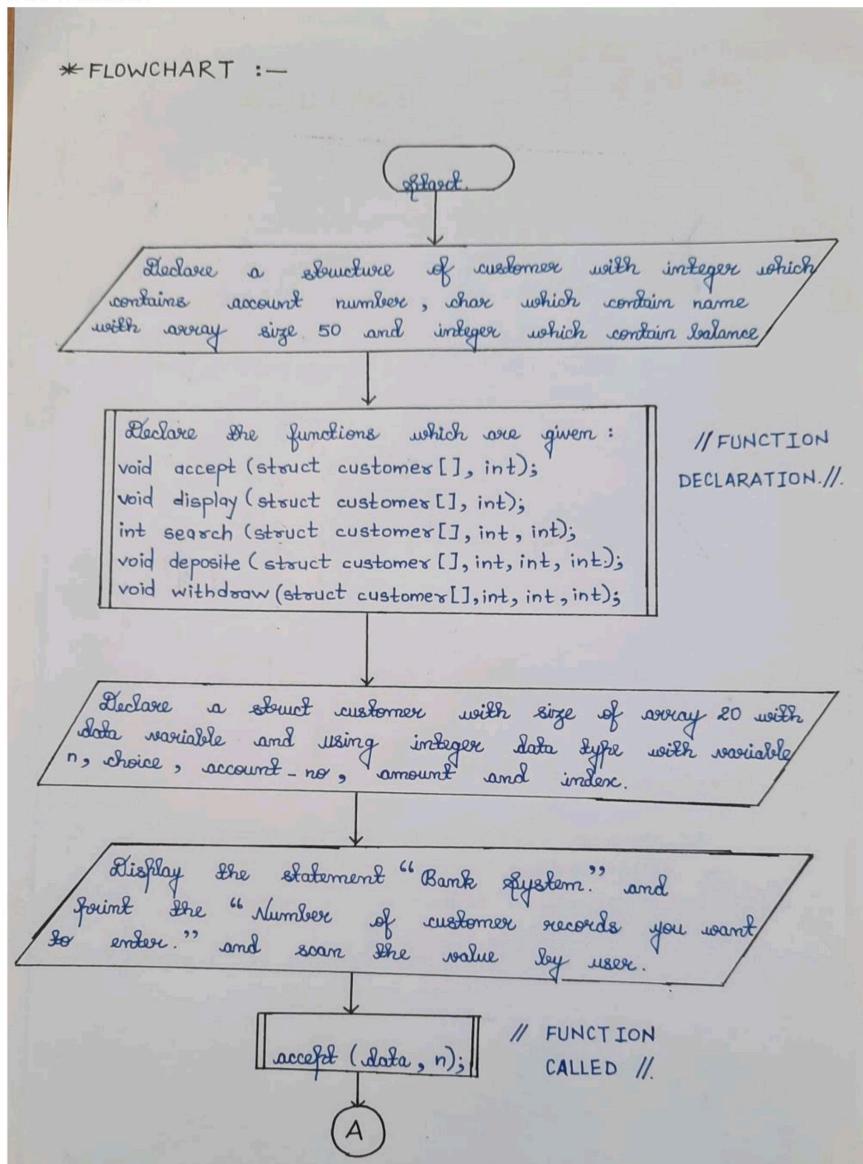
and scan it

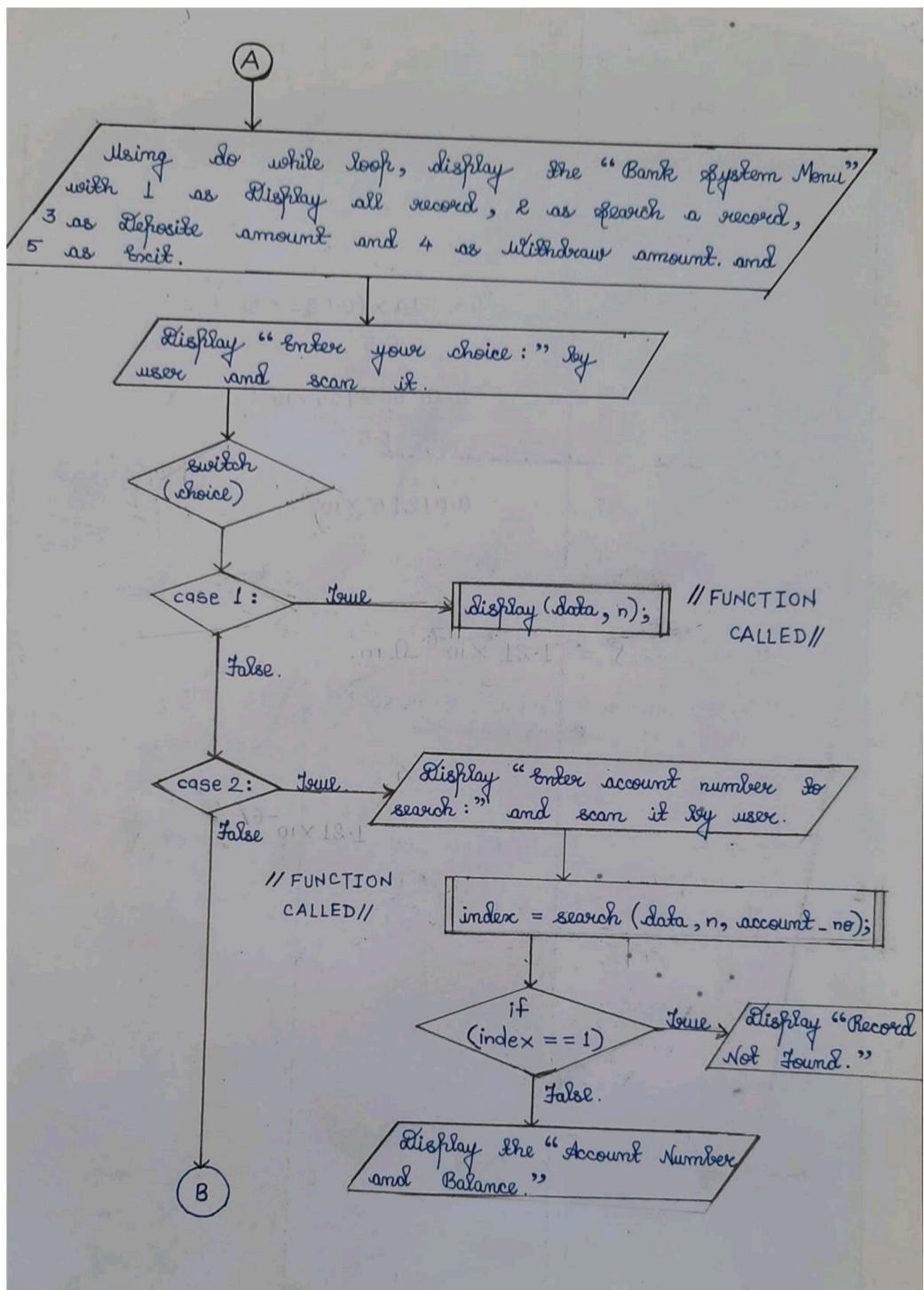
Then withdraw (data ,n, account\_no , amount);

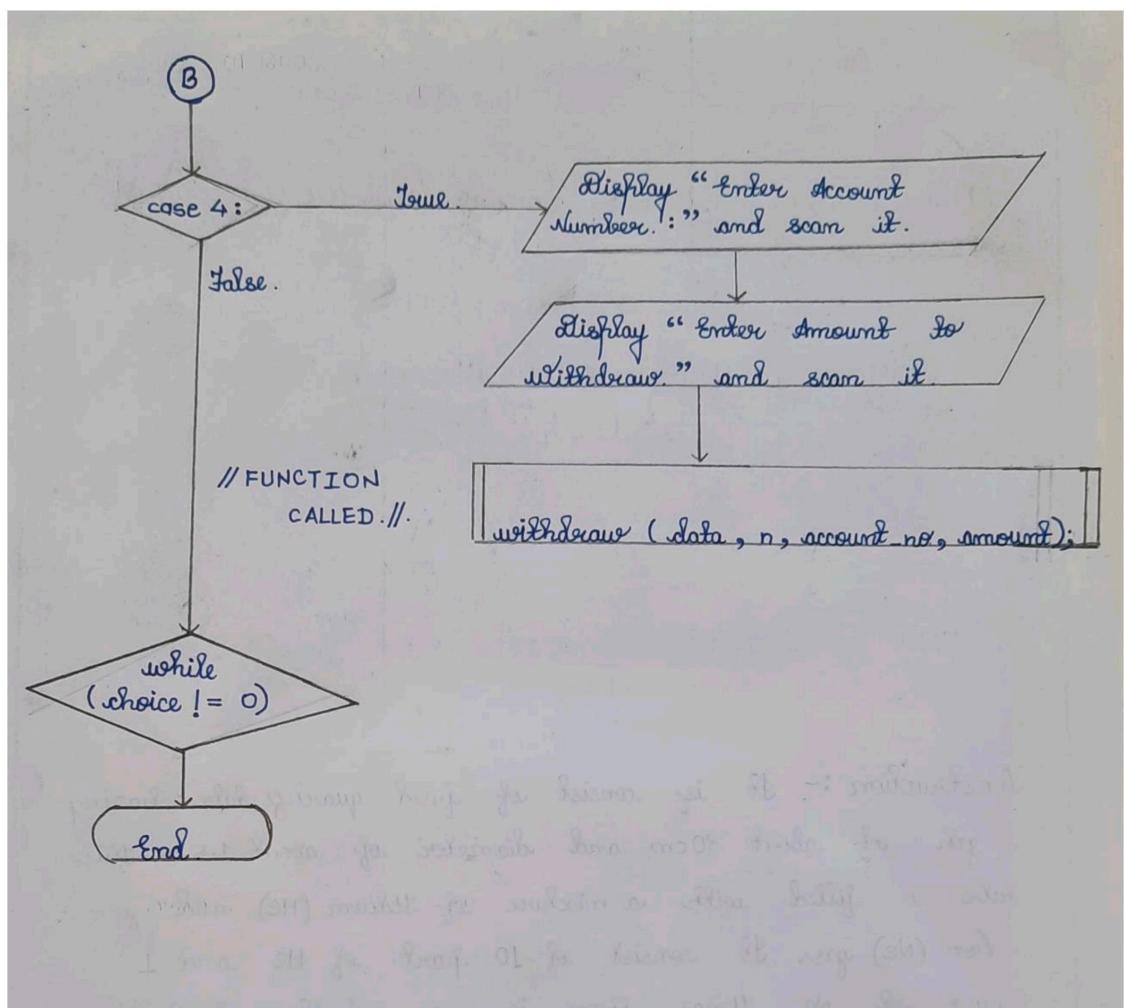
If false: then go to the step step 15

- STEP 15 : while (choice!=0)
- STEP 16 : END

Flowchart:-







## Concepts used in a Micro project :-

1. A STACK is a simple Data Structure, It can be implemented as an array or as Linked List, Stack has only One End that is TOP, Item can be pushed (add) and popped (remove) by only this End (TOP Pointer). Array follows LIFO (Last In First Out) property, it means Item that is inserted Last will be popped first.
2. Searching.  
Searching in data structure refers to the process of finding the required information from a collection of items stored as elements in the computer memory.
3. Functions
  - i. A function is a set of statements that take inputs, do some specific computation and produces output.
  - ii. The idea is to put some commonly or repeatedly done task together and make a function so that instead of writing the same code again and again for different inputs, we can call the function
  - iii. The general form of a function is:  
`return_type function_name([ arg1_type arg1_name,.....]) {code}`
  - iv. A function declaration tells the compiler about the number of parameters function takes, data-types of parameters, and return type of function. Putting parameter names in function declaration is optional in the function declaration, but it is necessary to put them in the definition.

## Source Code:-

```
#include <stdio.h>

struct customer
{
    int account_no;
    char name[80];
    int balance;
};

void accept(struct customer[], int);
void display(struct customer[], int);
int search(struct customer[], int, int);
void deposit(struct customer[], int, int, int);
void withdraw(struct customer[], int, int, int);

int main()
```

```

{
    struct customer data[20];
    int n, choice, account_no, amount, index;

    printf("Banking System\n\n");
    printf("Number of customer records you want to enter: ");
    scanf("%d", &n);
    accept(data, n);
    do
    {
        printf("\nBanking System Menu :\n");
        printf("Press 1 to display all records.\n");
        printf("Press 2 to search a record.\n");
        printf("Press 3 to deposit amount.\n");
        printf("Press 4 to withdraw amount.\n");
        printf("Press 0 to exit\n");
        printf("\nEnter choice(0-4) : ");
        scanf("%d", &choice);
        switch (choice)
        {
            case 1:
                display(data, n);
                break;
            case 2:
                printf("Enter account number to search : ");
                scanf("%d", &account_no);
                index = search(data, n, account_no);
                if (index == - 1)
                {
                    printf("Record not found : ");
                }
                else
                {
                    printf("A/c Number: %d\nName: %s\nBalance: %d\n",
                           data[index].account_no, data[index].name,
                           data[index].balance);
                }
                break;
            case 3:
                printf("Enter account number : ");
                scanf("%d", &account_no);
                printf("Enter amount to deposit : ");
                scanf("%d", &amount);
                deposit(data, n, account_no, amount);
                break;
            case 4:

```

```

        printf("Enter account number : ");
        scanf("%d", &account_no);
        printf("Enter amount to withdraw : ");
        scanf("%d", &amount);
        withdraw(data, n, account_no, amount);
    }
}
while (choice != 0);
return 0;
}

void accept(struct customer list[80], int s)
{
    int i;
    for (i = 0; i < s; i++)
    {
        printf("\nEnter data for Record # %d", i + 1);

        printf("\nEnter account_no : ");
        scanf("%d", &list[i].account_no);
        fflush(stdin);
        printf("Enter name : ");
        gets(list[i].name);
        list[i].balance = 0;
    }
}

void display(struct customer list[80], int s)
{
    int i;

    printf("\n\nA/c No\tName\tBalance\n");
    for (i = 0; i < s; i++)
    {
        printf("%d\t%s\t%d\n", list[i].account_no, list[i].name,
               list[i].balance);
    }
}

int search(struct customer list[80], int s, int number)
{
    int i;

    for (i = 0; i < s; i++)
    {
        if (list[i].account_no == number)

```

```
        {
            return i;
        }
    }
    return -1;
}

void deposit(struct customer list[], int s, int number, int amt)
{
    int i = search(list, s, number);
    if (i == -1)
    {
        printf("Record not found");
    }
    else
    {
        list[i].balance += amt;
    }
}

void withdraw(struct customer list[], int s, int number, int amt)
{
    int i = search(list, s, number);
    if (i == -1)
    {
        printf("Record not found\n");
    }
    else if (list[i].balance < amt)
    {
        printf("Insufficient balance\n");
    }
    else
    {
        list[i].balance -= amt;
    }
}
```

Output:-

```
Banking System
Number of customer records you want to enter: 4

Enter data for Record #1
Enter account_no : 123
Enter name : prachi

Enter data for Record #2
Enter account_no : 456
Enter name : akash

Enter data for Record #3
Enter account_no : 789
Enter name : mayur

Enter data for Record #4
Enter account_no : 357
Enter name : darshan

Banking System Menu :
Press 1 to display all records.
Press 2 to search a record.
Press 3 to deposit amount.
Press 4 to withdraw amount.
Press 0 to exit

Enter choice<0-4> : 3
Enter account number : 123
Enter amount to deposit : 500

Banking System Menu :
Press 1 to display all records.
Press 2 to search a record.
Press 3 to deposit amount.
Press 4 to withdraw amount.
Press 0 to exit

Enter choice<0-4> : 3
Enter account number : 456
Enter amount to deposit : 600

Banking System Menu :
Press 1 to display all records.
Press 2 to search a record.
Press 3 to deposit amount.
Press 4 to withdraw amount.
Press 0 to exit

Enter choice<0-4> : 3
Enter account number : 789
Enter amount to deposit : 700
```

```
Banking System Menu :  
Press 1 to display all records.  
Press 2 to search a record.  
Press 3 to deposit amount.  
Press 4 to withdraw amount.  
Press 0 to exit  
  
Enter choice(0-4) : 3  
Enter account number : 357  
Enter amount to deposit : 600  
  
Banking System Menu :  
Press 1 to display all records.  
Press 2 to search a record.  
Press 3 to deposit amount.  
Press 4 to withdraw amount.  
Press 0 to exit  
  
Enter choice(0-4) : 4  
Enter account number : 789  
Enter amount to withdraw : 100  
  
Banking System Menu :  
Press 1 to display all records.  
Press 2 to search a record.  
Press 3 to deposit amount.  
Press 4 to withdraw amount.  
Press 0 to exit  
  
Enter choice(0-4) : 1  
  
A/c No Name Balance  
123 prachi 500  
456 akash 600  
789 mayur 600  
357 darshan 600  
  
Banking System Menu :  
Press 1 to display all records.  
Press 2 to search a record.  
Press 3 to deposit amount.  
Press 4 to withdraw amount.  
Press 0 to exit  
  
Enter choice(0-4) : 3  
Enter account number : 123  
Enter amount to deposit : 100  
  
Banking System Menu :  
Press 1 to display all records.  
Press 2 to search a record.  
Press 3 to deposit amount.  
Press 4 to withdraw amount.  
Press 0 to exit
```

```
Enter choice(0-4) : 1

A/c No    Name    Balance
123      prachi   600
456      akash    600
789      mayur    600
357      darshan  600

Banking System Menu :
Press 1 to display all records.
Press 2 to search a record.
Press 3 to deposit amount.
Press 4 to withdraw amount.
Press 0 to exit

Enter choice(0-4) : 2
Enter account number to search : 456
A/c Number: 456
Name: akash
Balance: 600

Banking System Menu :
Press 1 to display all records.
Press 2 to search a record.
Press 3 to deposit amount.
Press 4 to withdraw amount.
Press 0 to exit

Enter choice(0-4) : 2
Enter account number to search : 357
A/c Number: 357
Name: darshan
Balance: 600

Banking System Menu :
Press 1 to display all records.
Press 2 to search a record.
Press 3 to deposit amount.
Press 4 to withdraw amount.
Press 0 to exit

Enter choice(0-4) : 1

A/c No    Name    Balance
123      prachi   600
456      akash    600
789      mayur    600
357      darshan  600
```

### Conclusion:

From this mini project we lead to this conclusion. We learn basic concepts of c language to create bank management system as per required to take info of customer in banks database And we conclude that c language can used to develop software like operating system, databases, compilers and so on.

### Reference:-

- We refer book “DATA STRUCTURE WITH C ” which is written by Seymour lipschutz and published by Mc Graw Hill Education.
- We also refers the following websites:  
<https://www.geeksforgeeks.org>  
<https://www.javatpoint.com/>
- Also we refer the notes, pdf , ppts shared by our teacher.