Kendriya Vidyalaya Greater Noida

Agra Region

A Project Report on

**BANKING MANAGEMENT SYSTEM**

For

AISSCE 2017-18 Examination

**SUBMITTED BY**

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PGT (Comp.Sc)

**CERTIFICATE**

This is to certify that the Project entitled **Banking Management System** is a bonafide work done by Kshitij Dwivedi and Abhishek Singh of class XII Session 2017-18 in partial fulfillment of CBSE’s AISSCE Examination 2018 and has been carried out under my direct supervision and guidance. This report or a similar report on the topic has not been submitted for any other examination and does not form a part of any other course undergone by the candidate.

## 

## Signature of Student Signature of Teacher

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**ACKNOWLEDGEMENT**

WE

undertook this Project work, as the part of my XII-C++ course. We had tried to apply my best of knowledge and experience, gained during the study and class work experience. However, developing software system is generally a quite complex and time-consuming process. It requires a systematic study, insight vision and professional approach during the design and development. Moreover, the developer always feels the need, the help and good wishes of the people near you, who have considerable experience and idea.

We would like to extend my sincere thanks and gratitude to my teacher Huma Taqvi**.** We am very much thankful to our Principal Dr. Karunakar Upadhyay for giving valuable time and moral support to develop this software.

We would like to take the opportunity to extend my sincere thanks and gratitude to my parents for being a source of inspiration and providing time and freedom to develop this software project.

We also feel indebted to my friends for the valuable suggestions during the project work.

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**Class XII**

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**INTRODUCTION**

This software project is developed to automate the functionalities of a User Friendly Banking Management System. The purpose of the software project is to develop a program which provides a friendly interface for the user to engage with the Banking Management System. The program when made to work over the machine can prove to be an ultimate way of interaction between the user and the bank.

This software, being simple in design and working, does not require much of training to users, and can be used as a powerful tool for the automating the bank management.

During coding and design of the software Project, C++, a powerful front-end tool is used for getting Graphical User Interface (GUI) based integrated platform and coding simplicity.

**Objective & Scope of the Project**

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he objective of the software project is to develop a computerized MIS to automate the functions of a Bank. This software project is also aimed to enhance the current record keeping system, which will help managers to retrieve the up-to-date information at right time in right shape.

The proposed software system is expected to do the following functionality-

* To provide a user friendly, Graphical User Interface (GUI) based integrated and centralized environment for MIS activities.
* The proposed system should maintain all the records and transactions, and should generate the required reports and information when required.
* To provide graphical and user-friendly interface to interact with a centralized database based on client-server architecture.
* To identify the critical operation procedure and possibilities of simplification using modern IT tools and practices.

This software does not require much training time of the users due to limited functionality and simplicity.

Despite of the best effort of the developer, the following limitations and functional boundaries are visible, which limits the scope of this application software.

1. This software can store records and produce reports in pre-designed format in soft copy. There is no facility yet to produce customized reports. Only specified reports are covered.
2. There is no provision to display passbook or cash transfer etc. for defaulter members; however it can be developed easily with the help of adding modules.

So far as future scope of the project is concerned, firstly it is open to any modular expansion i.e. other modules or functions can be designed and embedded to handle the user need in future. Any part of the software and reports can be modified independently without much effort.

**Theoretical Background**

## What is Turbo C++?

**C++** is a [general-purpose programming language](https://en.wikipedia.org/wiki/General-purpose_programming_language). It has [imperative](https://en.wikipedia.org/wiki/Imperative_programming), [object-oriented](https://en.wikipedia.org/wiki/Object-oriented_programming) and [generic](https://en.wikipedia.org/wiki/Generic_programming) programming features, while also providing facilities for [low-level](https://en.wikipedia.org/wiki/Low-level_programming_language) [memory](https://en.wikipedia.org/wiki/Memory_(computing)) manipulation.

It was designed with a bias toward [system programming](https://en.wikipedia.org/wiki/System_programming) and [embedded](https://en.wikipedia.org/wiki/Embedded_software), resource-constrained and large systems, with [performance](https://en.wikipedia.org/wiki/Performance_(software)), efficiency and flexibility of use as its design highlights.C++ has also been found useful in many other contexts, with key strengths being software infrastructure and resource-constrained applications,including [desktop applications](https://en.wikipedia.org/wiki/Application_software), servers (e.g. [e-commerce](https://en.wikipedia.org/wiki/E-commerce), [web search](https://en.wikipedia.org/wiki/Web_search_engine) or [SQL](https://en.wikipedia.org/wiki/SQL) servers), and performance-critical applications (e.g. [telephone switches](https://en.wikipedia.org/wiki/Telephone_switches) or [space probes](https://en.wikipedia.org/wiki/Space_probes)).C++ is a [compiled language](https://en.wikipedia.org/wiki/Compiled_language), with implementations of it available on many platforms. Many vendors provide [C++ compilers](https://en.wikipedia.org/wiki/List_of_compilers#C.2B.2B_compilers), including the [Free Software Foundation](https://en.wikipedia.org/wiki/Free_Software_Foundation), [Microsoft](https://en.wikipedia.org/wiki/Microsoft), [Intel](https://en.wikipedia.org/wiki/Intel), and [IBM](https://en.wikipedia.org/wiki/IBM).

**The Main Features of C++**

A free, open-source Integrated Development Environment for software developers. You get all the tools you need to create professional program on the concept of real world in C++/C.

**features of c++**

**Problem Definition & Analysis**

The hardest part of building a software system is deciding precisely what to build. No other part of the conceptual work is so difficult as establishing the detailed technical requirement. Defining and applying good, complete requirements are hard to work, and success in this endeavor has eluded many of us. Yet, we continue to make progress.

Problem definition describes the *What* of a system, not *How* . The quality of a software product is only as good as the process that creates it. Problem definition is one of the most crucial steps in this creation process. Without defining a problem, developers do not know what to build, customers do not know what to expect, and there is no way to validate that the built system satisfies the requirement.

Problem definition and Analysis is the activity that encompasses learning about the problem to be solved, understanding the needs of customer and users, trying to find out who the user really is, and understanding all the constraints on the solution. It includes all activities related to the following:

* Identification and documentation of customer’s or user’s needs.
* Creation of a document that describes the external behavior and the association constraints that will satisfies those needs.
* Analysis and validation of the requirements documents to ensure consistency, completeness, and feasibility
* Evolution of needs.

After the analysis of the functioning of a Banking Maagement system, the proposed System is expected to do the following: -

* To provide a user friendly, Graphical User Interface (GUI) based integrated and centralized environment for computerized Creation of accounts.
* The proposed system should maintain all the records and transactions, and should generate the required reports and information when required.
* To provide efficient and secured Information storage, flow and retrieval system, ensuring the integrity and validity of records.
* To identify the critical operation procedure and possibilities of simplification using modern IT tools and practices.

**System Implementation**

## The Hardware used:

While developing the system, the used hardware are:

PC with Pentium Dual Core processor having 2.00 GB RAM, SVGA and other required devices.

## The Softwares used:

* Microsoft Windows® 7 as Operating System.
* Turbo C++ 7
* MS-Word 2007 for documentation.

**System Design & Development**

**I/O Forms Design & Event Coding:**

The software project for Banking management system contains various forms along with programming codes. The coding is given below.

#include<iostream.h>

#include<conio.h>

#include<stdio.h>

#include<fstream.h>

#include<ctype.h>

#include<process.h>

class account

{

int acno;

char name[50];

int deposit, withdraw;

char type;

public:

void create\_account()

{

cout<<"\nEnter The account No. ::";

cin>>acno;

cout<<"\n\nEnter The Name of The account Holder:: ";

gets(name);

cout<<"\nEnter Type of The account (C/S):: ";

cin>>type;

type=toupper(type);

cout<<"\nEnter The Initial amount(>=500 for Saving and >=1000 for current ):: ";

cin>>deposit;

cout<<"\n\n\nAccount Created..";

}

void show\_account()

{

cout<<"\nAccount No. :: "<<acno;

cout<<"\nAccount Holder Name :: ";

puts(name);

cout<<"\nType of Account :: "<<type;

cout<<"\nBalance amount :: "<<deposit;

}

void modify\_account()

{

cout<<"\nModify Account No. :: "<<acno;

cout<<"\nModify Account Holder Name :: ";

gets(name);

cout<<"\nModify Type of Account :: ";

cin>>type;

cout<<"\nModify Balance amount :: ";

cin>>deposit;

}

void dep(int x)

{

deposit+=x;

}

void draw(int x)

{

deposit-=x;

}

void report()

{ cout<<acno<<"\t"<<name<<"\t\t"<<type<<"\t\t"<<deposit<<endl;}

int retacno()

{ return acno;}

float retdeposit()

{return deposit;}

char rettype()

{return type;}

};

fstream fp;

account ac;

void write\_account()

{

fp.open("account.dat",ios::out|ios::app);

ac.create\_account();

fp.write((char\*)&ac,sizeof(account));

fp.close();

}

void display\_sp(int n)

{

clrscr();

cout<<"\nBALANCE DETAILS\n";

int flag=0;

fp.open("account.dat",ios::in);

while(fp.read((char\*)&ac,sizeof(account)))

{

if(ac.retacno()==n)

{

ac.show\_account();

flag=1;

}

}

fp.close();

if(flag==0)

cout<<"\n\nAccount number does not exist.";

getch();

}

void modify\_account()

{

int no,found=0;

clrscr();

cout<<"\n\n\tTo Modify ";

cout<<"\n\n\tEnter The account No. of The account :: ";

cin>>no;

fp.open("account.dat",ios::in|ios::out);

while(fp.read((char\*)&ac,sizeof(account)) && found==0)

{

if(ac.retacno()==no)

{

ac.show\_account();

cout<<"\nEnter The New Details of account :: "<<endl;

ac.modify\_account();

int pos=-1\*sizeof(ac);

fp.seekp(pos,ios::cur);

fp.write((char\*)&ac,sizeof(account));

cout<<"\n\n\t Record Updated.";

found=1;

}

}

fp.close();

if(found==0)

cout<<"\n\n Record Not Found. ";

getch();

}

void delete\_account()

{

int no;

clrscr();

cout<<"\n\n\n\tDelete Record";

cout<<"\n\nEnter The account no. of the customer whose account You Want To Delete :: ";

cin>>no;

fp.open("account.dat",ios::in|ios::out);

fstream fp2;

fp2.open("Temp.dat",ios::out);

fp.seekg(0,ios::beg);

while(fp.read((char\*)&ac,sizeof(account)))

{

if(ac.retacno()!=no)

{

fp2.write((char\*)&ac,sizeof(account));

}

}

fp2.close();

fp.close();

remove("account.dat");

rename("Temp.dat","account.dat");

cout<<"\n\n\tRecord Deleted ..";

getch();

}

void display\_all()

{

clrscr();

fp.open("account.dat",ios::in);

if(!fp)

{

cout<<"ERROR!!! FILE COULD NOT BE OPENED. \n\nFirst please create the file./n/nThank You.";

getch();

return;

}

else{

cout<<"\n\n\t\tACCOUNT HOLDER LIST\n\n";

cout<<"====================================================\n";

cout<<"A/c no.\tNAME\t\tType\t\tBalance\n";

cout<<"====================================================\n";

while(fp.read((char\*)&ac,sizeof(account)))

ac.report();

}

fp.close();

}

void deposit\_withdraw(int option)

{

int no,found=0,amt;

clrscr();

cout<<"\n\n\tEnter The account No. :: ";

cin>>no;

fp.open("account.dat",ios::in|ios::out);

while(fp.read((char\*)&ac,sizeof(account)) && found==0)

{

if(ac.retacno()==no)

{

ac.show\_account();

if(option==1)

{

cout<<"\n\n\tTO DEPOSITE AMOUNT ";

cout<<"\n\nEnter The amount to be deposited :: ";

cin>>amt;

ac.dep(amt);

}

if(option==2)

{

cout<<"\n\n\tTO WITHDRAW AMOUNT ";

cout<<"\n\nEnter The amount to be withdraw :: ";

cin>>amt;

int bal=ac.retdeposit()-amt;

if((bal<500 && ac.rettype()=='S') || (bal<1000 && ac.rettype()=='C'))

cout<<"Insufficient balance.";

else

ac.draw(amt);

}

int pos=-1\*sizeof(ac);

fp.seekp(pos,ios::cur);

fp.write((char\*)&ac,sizeof(account));

cout<<"\n\n\t Record Updated.";

found=1;

}

}

fp.close();

if(found==0)

cout<<"\n\n Record Not Found. ";

getch();

}

void intro()

{

clrscr();

gotoxy(36,11);

cout<<"BANKING";

gotoxy(35,14);

cout<<"MANAGEMENT";

gotoxy(36,17);

cout<<"SYSTEM";

cout<<"\n\nMADE BY : Kshitij Dwivedi";

cout<<"\n\nSCHOOL : Kendriya Vidyalaya, Greater Noida";

getch();

}

void main()

{

char ch;

intro();

do

{

clrscr();

cout<<"\n\n\n\tMAIN MENU";

cout<<"\n\n\t01. NEW ACCOUNT";

cout<<"\n\n\t02. DEPOSIT AMOUNT";

cout<<"\n\n\t03. WITHDRAW AMOUNT";

cout<<"\n\n\t04. BALANCE ENQUIRY";

cout<<"\n\n\t05. ALL ACCOUNT HOLDER LIST";

cout<<"\n\n\t06. CLOSE AN ACCOUNT";

cout<<"\n\n\t07. MODIFY AN ACCOUNT";

cout<<"\n\n\t08. EXIT";

cout<<"\n\n\tSelect Your Option (1-8) ";

ch=getche();

switch(ch)

{

case '1': clrscr();

write\_account();

getch();

break;

case '2': clrscr();

deposit\_withdraw(1);

break;

case '3': clrscr();

deposit\_withdraw(2);

getch();

break;

case '4': int num;

clrscr();

cout<<"\n\n\tEnter The account No. ::";

cin>>num;

display\_sp(num);

break;

case '5': clrscr();

display\_all();

getch();

break;

case '6': delete\_account();

break;

case '7': clrscr();

modify\_account();

getch();

break;

case '8':exit(0);

default :cout<<"\a";

}

}while(ch!='8');

}

**User Manual**

## 

## How to install Software:

### Hardware Requirement-

* Intel Pentium/Celeron or similar processor based PC at Client/Server end.
* 128 MB RAM and 4GB HDD space (for Database) is desirable.
* Standard I/O devices like Keyboard and Mouse etc.
* Printer is needed for hard-copy reports.

### Software Requirement-

* Windows XP/2007 OS is desirable.
* Turbo C++

## Working with Software Project:

The Banking Management System consists of the following logically organised structure for the easy functionality. User may choose the options for corresponding works.

**CREATE ACCOUNT:**

**DELETE ACCOUNT:**

**MODIFY ACCOUNT:**

**WITHDRAW MONEY:**

**DEPOSIT MONEY:**

**BALANCE ENQUIRY:**

**ALL ACCOUNT HOLDER LIST:**

**References**

In order to work on this project titled –***Banking Management System,*** the following books and literature are referred by me during the various phases of development of the project.

(1) C++ class XII

-by Sumita Arora

Other than the above-mentioned books, the suggestions and supervision of my teacher and my class experience also helped me to develop this software project.