

DR. C.V. RAMAN UNIVERSITY

MINI PROJECT REPORT

ON

LIBRARY MANAGEMENT SYSTEM

By

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Enrolment No: CV185030020

Under Guidance of

Mr. Deepak R. Prajapati

in partial fulfilment of requirement for the degree of

BACHELOR OF COMPUTER APPLICATIONS



DEPARTMENT OF COMPUTER AND INFORMATION TECHNOLOGY
DR. C.V. RAMAN UNIVERSITY
2018-2019

CERTIFICATE OF ORIGINALITY

This is to certify that the project report entitled "Library Management System" submitted to DR. C.V. University in partial fulfilment of the requirement for the award of the degree of BACHELOR OF COMPUTER APPLICATIONS, is an authentic and original work carried out by Mr. DARSHAN BHIMRAO BHOSALE with enrolment no. CV185030020 under my guidance.

The matter embodied in this project is genuine work done by the student and has not been submitted whether to this University or to any other University / Institute for the fulfilment of the requirements of any course of study.

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CERTIFICATE

*This is to certify that, **Mr. DARSHAN BHIMRAO BHOSALE** has satisfactorily completed the FYBCA. Project entitled, “**Library Management System**”. This work is being submitted in partial fulfilment for the award of degree of Bachelor of Computer Application, for the academic year 2018-2019, under my guidance.*

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ACKNOWLEDGEMENT

I am very glad to work with my sincere thanks to our IT Coordinator, Deepak R. Prajapati for encouraging and allowing us to developed the program on the “LIBRARY MANAGEMENT SYSTEM” and help us to achieving our goals toward this project.

I also glad to thank all our lecturers and others who have directly or indirectly helped in my project.

ABSTRACT

In this project, i am working with the C++ language with the using of the function present or defined by the users. In this software the functions and the switch statement plays the important role, If else statement, class. The programme simply refers to the use of this functions and the statement that are defined by the users.

As the system build to keep the users in mind, the ever single customers need the password and the id to enter the library and use the wide range of options present in them. This provide the users the wide range options to choose from.

RESULT :-

1. This programme help to manage and keep the record about the book present at a moment.
2. Wide range for users to select from
3. Password and id required for any work

CONCLUSION :-

1. This help to reduce the errors.
2. Easy to use and user friendly.
3. Using the password only you are able to proceed further.

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INTRODUCTION

C++ was developed by Bjarne Stroustrup of AT&T Bell Laboratories in the early 1980's, and is based on the C language. The name is a pun "++" is a syntactic construct used in C (to increment a variable), and C++ is intended as an incremental improvement of C. Most of C is a subset of C++, so that most C programs can be compiled (i.e. converted into a series of low-level instructions that the computer can execute directly) using a C++ compiler.

In this program we are focusing on the managing of the admin range of options, such as name of book, change any book from library etc. this help to maintain the record of books which are available at library at a moment.

SCOPE :-

The scope is to maintain the records of each book present in the library, and keep the track record of the books.

PURPOSE :-

To complete the need of library, so it make easy to maintain and keep the track record of book available at the time and the record of book to return from person etc.

Advantage :-

1. It make easy to maintain the records.
2. Manage the flow of books available or taken by any person.
3. Easy to find any customers and there track.

EXISTING SYSTEM

In this system the we are focusing on the managing and track the record of a particular book and the person who takes. This help to easily manage the records and track, easy to use and maintain. from one system only you are able to see the customers record. simply if any process get wrong the message will appear regarding to that error, so it make easy to identify the errors.

Disadvantages Of Existing System

1. It doesn't make to keep the users / customers in mind.
2. You constantly need to update to the books.
3. Takes lot of memory space.

PROPOSED SOLUTION

Due to the program didn't make to keep users / customers in mind, so the program need to update and give the more wide range of options for the owners also. after this one person can able to manage the all the users and company records etc. this make easy to use and take less time and memory rather then manage multiple software at a time.

Advantages Of Proposed System

1. You can able to manage all things from one software only.
2. This reduce the errors produce by using the different software at a time.
3. Help to keep the track record at one place only.

SYSTEM REQUIREMRNT

Hardware Requirements:

1. Processors : Any processor available in market.
2. RAM : 512 Mb (Min)
3. CPU : Any series of CPU.

Software Requirements:

1. Operating system : All Windows operating system.

MODULES

LIBRARY MANAGEMENT SYSTEM

1. TO ADD
 - NAME OF BOOK
 - NAME OF AUTHOR
 - BOOK OF COPIES
2. TO SHOW ALL BOOK
3. TO CHECK AVAILABILITY
4. TO MODIFY
5. TO DELETE
6. EXIT

IMPLEMENTATION AND TESTING

Coding:

```
#include<iostream>           //INCLUDED HEADER FILES
#include<conio.h>
#include<fstream>
#include<string.h>
using namespace std;
class book                   //CLASS NAME : BOOK
{
public:
    char name[20];
    char author[20];
    int a;                   //copies
    void getdata();
    void show();
};
void book::getdata()         //FUNCTIONS TO GET DATA
{
    cout<<"\n\n\n\t\tEnter Name Of Book:\t";
    cin>>name;
    cout<<"\n\t\tEnter Name Of Author:\t";
    cin>>author;
    cout<<"\n\t\tEnter No. Of Copies :\t";
    cin>>a;
    cout<<"\t\tSuccessfully!\n";
}
void book::show()            //FUNCTIONS TO SHOW DATA
{
    cout<<"BOOK   :"<<name;
    cout<<"\nAUTHOR   :"<<author;
    cout<<"\nCOPIES   :"<<a;
}

int main()                   //MAIN BODY
{
```

```
system("color c");
    char pass[20],password[20]="darshan7754";
login_try:
    cout<<"\n\n\t\tEnter the password to login:";
    cin>>pass;
    if (strcmp(pass,password)==0)
    {
        cout<<"\n\nPassword Match!";
    }
    else
    {
        system("cls");
        cout<<"\n\nWrong password!!\a\a\a";
        goto login_try;
    }
    system("cls");
system("color 9");
    book b1;
    int a;
    z:
system("cls");
    fstream f;
f.open("lib.txt",ios::in|ios::out|ios::app);
cout<<"\n\n\t\t\xB2LIBRARY MANAGEMENT SYSTEM\xB2";
    cout<<"\n\n\n\t\tWHAT DO YOU WANT TO DO:";
    cout<<"\n\n\t\t1. TO ADD:";
    cout<<"\n\n\t\t2. TO SHOW ALL BOOKS:";
    cout<<"\n\n\t\t3. TO CKECK AVAILABILITY:";
    cout<<"\n\n\t\t4. TO MODIFY:";
    cout<<"\n\n\t\t5. TO DELETE:";
    cout<<"\n\n\t\t6. TO EXIT:";
    cout<<"\n\n\t\tENETR YOU ARE CHOICE:";
    cin>>a;

switch (a)
{
case 1:          //DETAILS : TO ADD A BOOKS RECORD
{
```

```
        system("cls");
    fstream f;
    f.open("lib.txt",ios::in|ios::out|ios::ate|ios::app|ios::binary);
    char ans;
    b1.getdata();
    f.write((char *)&b1,sizeof(b1));
        cout<<"\n\tDo You Want To Continue(Y&y/N&n):";
        cin>>ans;
    if(ans=='Y' || ans=='y')
        goto z;
    else if(ans=='n' || ans=='N')
        goto x;
    }
    break;
case 2:                //DETAILS : TO SHOW ALL BOOKS RECORDS
{
    system("cls");
        cout<<"\n\n";
    fstream f;
    f.open("lib.txt",ios::in|ios::binary);
    char ans;
    if(!f)
    {
        cout<<"File not Found";
        exit(0);
    }
    else
    {
        f.read((char *)&b1,sizeof(b1));
        while(!f.eof())
        {
            b1.show();
            cout<<"\nPress Any Key....For Next Record"<<endl;
            getch();
            f.read((char *)&b1,sizeof(b1));
        }
    }
}
```

```
        f.close();
    cout<<"\n\tDo You Want To Continue(Y&y/N&n):";
    cin>>ans;
    if(ans=='Y' || ans=='y')
        goto z;
    else if(ans=='n' || ans=='N')
        goto x;
}
break;
case 3:          //DETAILS : TO CHECK AVAILABILITY
{
    system("cls");
    char ans;
    ifstream f;
    book b1;
    char name[20];
    char author[20];
    int a;
    f.open("lib.txt",ios::in|ios::binary);
    cout<<"\n\n\tEnter book name whose record to be seen :";
    cin>>name;
    do
    {
        f.read((char *)&b1,sizeof(b1));
        if(f.eof()==1)
        {
            break;
        }
        if(strcmp(b1.name,name)==0)
        {
            cout<<"\n  Name   : "<<b1.name;
            cout<<"\n  Author : "<<b1.author;
            cout<<"\n  copies : "<<b1.a;
        }
    }
    while(f);
    f.close();
```

```
cout<<"\n\tDo You Want To Continue(Y&y/N&n):";
cin>>ans;
    if(ans=='Y' || ans=='y')
        goto z;
    else if(ans=='n' || ans=='N')
        goto x;
    }
    break;
case 4:                //DETAILS : TO MODIFY A RECORD
{
    system("cls");
    char ans;
    fstream f;
    book b1;
    char name[20];
    char author[20];
    int a;
    f.open("lib.txt",ios::in|ios::out|ios::binary);
    cout<<" Enter book name whose record to be changed :";
    cin>>name;
    do
    {
        f.read((char *)&b1,sizeof(b1));
        if(f.eof()==1)
        {
            break;
        }
        if(strcmp(b1.name,name)==0)
        {
            cout<<"\n\tName    : "<<b1.name;
            cout<<"\n\tAuthor  : "<<b1.author;
            cout<<"\n\tCopies  : " <<b1.a;
            getchar();
            cout<<"\n\tEnter New Values" ;
            cout<<"\n\n\tEnter the book name :";
            cin>>name;
            cout<<"\tEnter author name  :";
```



```
        cin>>author;
        cout<<"\tEnter no. of copies  :";
        cin>>a;
        strcpy(b1.name,name);
        strcpy(b1.author,author);
        b1.a=a;
        int l=f.tellg();
        f.close();
        f.open("book.txt",ios::out|ios::binary|ios::ate);
        f.seekg(l-sizeof(b1));
        f.write((char *)&b1,sizeof(b1));
    }
}
while(f);
    f.close();
    cout<<"\n\tDo You Want To Continue(Y&y/N&n):";
    cin>>ans;
    if(ans=='Y' || ans=='y')
        goto z;
    else if(ans=='n' || ans=='N')
        goto x;
}
    break;
case 5:          //DETAILS : TO DELETE A BOOKS RECORD
{
    system("cls");
    char name[20];
    f.close();
    f.open("lib.txt",ios::in|ios::ate|ios::binary);
    cout<<"DELETING:-";
    cout<<"\n\n\tEnter The Name U Want To delete:\t";
    fflush(stdin);
    cin>>name;
    f.seekg(0);
    int k=0;
    do
    {
```

```
f.close();
f.open("lib.txt",ios::in|ios::ate|ios::binary);
f.seekg(k);
fflush(stdin);
f.read((char *)&b1,sizeof(b1));
if(f.eof())
    break;
if(strcmp(b1.name,name)==0)
{
    k+=46;
    continue;
}
else
{
    f.close();
    f.open("lib.txt",ios::out|ios::ate|ios::binary);
    f.write((char*)&b1, sizeof b1);
    k+=46;
}
}
while(f);
f.close();
remove ("lib.txt");
rename ("lib1.txt", "lib.txt");
cout<<"\n\n\n\n\tPress Any Key...";
getch();
goto z;
}
    break;
case 6:          //DETAILS : TO EXIT
{
    x:
        cout<<"\n\tTHANKS FOR VISITING";
}
break;
}
}
```

Screen Shots:

1. LIBRARY MANAGEMENT SYSTEM

```
I:\BCA SEM-2 Project\C++\26&27March2019\libp3.exe

LIBRARY MANAGEMENT SYSTEM

WHAT DO YOU WANT TO DO:

1. TO ADD:
2. TO SHOW ALL BOOKS:
3. TO CKECK AVAILABILITY:
4. TO MODIFY:
5. TO DELETE:
6. TO EXIT:

ENETR YOU ARE CHOICE:
```

2. TO ADD

```
I:\BCA SEM-2 Project\C++\26&27March2019\libp3.exe

Enter Name Of Book: HTML&CSS
Enter Name Of Author: JON_DUCKETT
Enter No. Of Copies : 150
Successfully!
Do You Want To Continue(Y&y/N&n):
```

3. TO SHOW ALL BOOKS

```
I:\BCA SEM-2 Project\C++\26&27March2019\libp3.exe

BOOK :HTML&CSS
AUTHOR :JON_DUCKETT
COPIES :150
Press Any Key....For Next Record
BOOK :JAVASCRIPT&JQUERY
AUTHOR :JON_DUCKETT
COPIES :250
Press Any Key....For Next Record

Do You Want To Continue(Y&y/N&n):
```

4. TO CHECK AVAILABILITY

```
I:\BCA SEM-2 Project\C++\26&27March2019\libp3.exe

Enter book name whose record to be seen :HTML&CSS

Name :HTML&CSS
Author :JON_DUCKETT
copies :150
Do You Want To Continue(Y&y/N&n):
```

5. TO MODIFY

```
I:\BCA SEM-2 Project\C++\26&27March2019\libp3.exe

Enter book name whose record to be changed :JAVASCRIPT&JQUERY

Name :JAVASCRIPT&JQUERY
Author :JON_DUCKETT
Copies :250
Enter New Values

Enter the book name :C++
Enter author name :DARSHAN
Enter no. of copies :15

Do You Want To Continue(Y&y/N&n):
```

CONCLUSION AND FUTURE WORK

Conclusion :

1. This program is only make to keep admin / owner in mind
2. Through this only owner are able to keep the track record of each book present in the library.
3. Easy to use and maintain from the wide range of options.

Future Work :

1. To make a software to keep owners in mind
2. Make available of both user and owner part in one software
3. Reduce space and time to execute
4. More efficient and wide range of options for both users and owner

REFERENCES

- Stack overflow (website)
- Google
- You tube (based on the converters)
- Refer books of computer programming (structure programming approach)
- Include help c (tutorial website)