

C++ Program to Maintain Book Records using File Handling

By [admin](#) | 04.01.2017

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Maintain Book Records

Write a C++ Program to Maintain Book Records using File Handling using File Handling. Here's simple Program to Maintain Book Records using File Handling in C++ Programming Language.

Example Program in C++ Using file handling to perform following operations:

- 1) **add new record**
- 2) **View all records**
- 3) **Delete particular record**
- 4) **Search record**
- 5) **Update record**

Below is the source code for C++ Program to Maintain Book Records using File Handling which is successfully compiled and run on Windows System.

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SOURCE CODE ::



```
/* C++ Program to Maintain Book Records using File Handling */  
  
#include<iostream>  
#include<fstream>
```

```

#include<stdio.h>
#include<fstream>
#include<iomanip>
#include<string.h>
using namespace std;

int menu();
class Book
{
    private:
        int bookid;
        char title[20];
        float price;
    protected:
        int allotbookid();
        void showheader();
    public:
        void getbook();
        void showbook();
        void addbook();
        void viewbook();
        void searchbook();
        void deletebook();

        void modifybook();
};

int Book::allotbookid()
{
    ifstream fin;
    Book temp;
    int id=0;
    fin.open("C:\\Users\\acer\\Documents\\books.txt",ios::in|ios::binary);
    if(!fin)
        return(id+1);
    else
    {
        fin.read((char*)&temp,sizeof(temp));
        while(!fin.eof())
        {
            id=temp.bookid;
            fin.read((char*)&temp,sizeof(temp));
        }
        id++;
        return(id);
    }
}

void Book::showheader()
{
    cout<<left;
    cout<<"\n"<<setw(10)<<"BOOK ID"<<setw(10)<<"Price"<<setw(10)<<"Title\n";
}

void Book::getbook()
{
    cout<<"Enter Book Title: ";
    fflush(stdin);
    gets(title);
}

```



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    cout<<"Price of Book: ";
    cin>>price;
    bookid=allotbookid();
}
void Book::showbook()
{
    cout<<left;
    cout<<"\n"<<setw(10)<<bookid<<setw(10)<<price<<setw(10)<<title;
}
void Book::addbook()
{
    ofstream fout;
    fout.open("C:\\Users\\acer\\Documents\\books.txt",ios::out|ios::app|ios::binary);
    if(!fout)
        cout<<"File can not open";
    else
        fout.write((char*)this,sizeof(*this));
    fout.close();
}
void Book::viewbook()
{
    ifstream fin;
    fin.open("C:\\Users\\acer\\Documents\\books.txt",ios::in|ios::binary);
    if(!fin)
        cout<<"File not found";
    else
    {
        showheader();
        fin.read((char*)this,sizeof(*this));
        while(!fin.eof())
        {
            showbook();
            fin.read((char*)this,sizeof(*this));
        }
    }
    fin.close();
}
void Book::searchbook()
{
    ifstream fin;
    char str[20];
    fin.open("C:\\Users\\acer\\Documents\\books.txt",ios::in|ios::binary);
    cout<<"Enter the name of book to search:";
    fflush(stdin);
    gets(str);
    if(!fin)
        cout<<"File not found";
    else
    {
        fin.read((char*)this,sizeof(*this));
        while(!fin.eof())
        {
            if(!strcmp(this->title,str))
            {
                showheader();
                showbook();
                break;
            }
        }
    }
}

```

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    }
    fin.read((char*)this, sizeof(*this));
}
if(fin.eof())
    cout<<"\nRecord not found";
}
fin.close();
}
void Book:: modifybook()
{
    int id,r=0;
    fstream file;
    file.open("C:\\Users\\acer\\Documents\\books.txt",ios::in|ios::out|ios::ate|ios::bin);
    cout<<"\nEnter record number to modify (bookid): ";
    cin>>id;
    file.seekg(0);
    if(!file)
        cout<<"File not found";
    else
    {
        file.read((char*)this, sizeof(*this));

        while(!file.eof())
        {
            r++;
            if(bookid==id)
            {
                showheader();
                showbook();
                cout<<"\nRe-enter book details:\n";
                cout<<"Enter book title:";
                fflush(stdin);
                gets(title);
                cout<<"Enter book price";
                cin>>price;
                file.seekp((r-1)*sizeof(Book),ios::beg);
                file.write((char*)this, sizeof(*this));
                break;
            }
            file.read((char*)this, sizeof(*this));
        }
        if(file.eof())
            cout<<"Record not found";
    }
    file.close();
}
void Book:: deletebook()
{
    ifstream fin;
    ofstream fout;
    int id;
    char x;
    fin.open("C:\\Users\\acer\\Documents\\books.txt",ios::in|ios::binary);
    fout.open("C:\\Users\\acer\\Documents\\tempbooks.txt",ios::out|ios::app|ios::binary);
    cout<<"Enter bookid to delete record";
    cin>>id;
    if(!fin)
        cout<<"File not found";

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else
{
    fin.read((char*)this,sizeof(*this));
    while(!fin.eof())
    {
        if(this->bookid==id)
        {
            cout<<"Record you want to delete is:\n\n";
            showheader();
            showbook();
            cout<<"\nAre you sure you want to delete this record(y/n): ";
            fflush(stdin);
            cin>>x;
            if(x=='n')
                fout.write((char*)this,sizeof(*this));

            else
                cout<<"\nRecord is deleted";
        }
        else
            fout.write((char*)this,sizeof(*this));
        fin.read((char*)this,sizeof(*this));
    }
    fin.close();
    fout.close();

    system("erase C:\\Users\\acer\\Documents\\books.txt");
    system("rename C:\\Users\\acer\\Documents\\tempbooks.txt C:\\Users\\

}

}
int menu()
{
    system("cls");
    cout<<"\n1. Add new book";
    cout<<"\n2. View all books";
    cout<<"\n3. Search book";
    cout<<"\n4. modify book";
    cout<<"\n5. delete book";
    cout<<"\n6. Exit";
    cout<<"\n\nEnter your choice";
    int ch;
    cin>>ch;
    return(ch);
}
int main()
{
    Book b;
    int ch;
    while(1)
    {
        ch=menu();
        switch(ch)
        {
            case 1:
                b.getbook();
                b.addbook();

```

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        break;
    case 2:
        b.viewbook();
        break;
    case 3:
        b.searchbook();
        break;
    case 4:
        b.modifybook();
        break;
    case 5:
        b.deletebook();
        break;
    case 6:
        exit(0);
    default:
        cout<<"Enter Valid choice";

    }

}

return 0;
}

```

Above is the source code for C++ Program to Maintain Book Records using File Handling which is successfully compiled and run on Windows System.

If you found any error or any queries related to the above program or any questions or reviews , you wanna to ask from us ,you may [Contact Us](#) through our contact Page or you can also comment below in the comment section.We will try our best to reach up to you in short interval.

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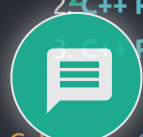
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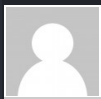
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