**CODE:-**

# include <iostream>

# include <cstdlib>

#include<cstring>

#include<ctime>

using namespace std;

class lib

{

private:

int copies,accno;

char title[20],author[20],subj[20];

struct publdate

{

int date,mon,year;

}dop;

public:

void my\_insert(int n)

{

cout<<"Enter title, author, subject, number of copies and publishing date in DD MM YYYY format of book"<<(n)<<"\n";

cin>>title>>author>>subj>>copies>>dop.date>>dop.mon>>dop.year;

accno=rand();

}

void my\_display(int n)

{

cout<<"The details of book "<<n+1<< " are:"<<"\n";

cout<<"Title:"<<title<<"\n"<<"Author:"<<author<<"\n"<<"Subject:"<<subj<<"\n"<<"Accession Number:"<<accno<<"\n"<<"Number of copies:"<<copies<<"\n"<<"Publishing Date:-"<<dop.date<<"/"<<dop.mon<<"/"<<dop.year<<"\n";

}

void my\_search(char strch,char input[],int n)

{

switch (strch)

{

case 't':

if (strcmp(input, title) == 0)

{cout<<"BOOK FOUND\n";

my\_display(n);}

else

cout<<"BOOK NOT FOUND IN RECORDS."<<endl;

break;

case 'a':

if (strcmp(input, author) == 0)

{cout<<"BOOK FOUND\n";

my\_display(n);}

else

cout<<"BOOK NOT FOUND IN RECORDS."<<endl;

}

}

};

int main()

{

lib books[10];

int choice,count=0;

srand(time(0));

while(1)

{

cout<<"Enter 1 to insert book, 2 to search book either by title or author, 3 to display entire book list, 4 to exit."<<"\n";

cin>>choice;

switch(choice)

{

case 1:

books[count++].my\_insert(count);

break;

case 2:

char strch[7], input[20];

cout << "Do you want to search by title or author?"

<< "\n";

cin >> strch;

cout << "Enter the input."

<< "\n";

cin >> input;

for (int i=0;i<count;i++)

books[i].my\_search(strch[0],input,i);

break;

case 3:

for(int i=0;i<count;i++)

books[i].my\_display(i);

break;

case 4:

cout<<"Exit.\n";

exit(1);

default:

cout<<"Wrong input.\n";

}

}

}

**OUTPUT:-**

