**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."<<endl;

break;

case 'a':

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

{

cout << "BOOK FOUND\n";

my\_display(n);

}

else

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

}

}

}

};

int main()

{

int num;

cout << "Enter the maximum number of books.\n";

cin >> num;

lib \*books = new lib[num];

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:

if (num == count)

{

cout << "Max size reached.\n";

break;

}

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:-**



