#include <iostream>

using namespace std;

class kiit

{

public:

string name;

int roll\_no;

int age;

string course;

string branch;

kiit(string name, int roll\_no, int age, string course, string branch)

{

this->name = name;

this->roll\_no = roll\_no;

this->age = age;

this->course = course;

this->branch = branch;

}

void display()

{

cout << "Name: " << name << endl;

cout << "Roll No: " << roll\_no << endl;

cout << "Age: " << age << endl;

cout << "Course: " << course << endl;

cout << "Branch: " << branch << endl;

}

~kiit()

{

cout << "Destructor called" << endl;

}

};

class Library : public kiit

{

public:

int book\_id;

string book\_name;

string author\_name;

int price;

Library(int book\_id, string book\_name, string author\_name, int price , string name, int roll\_no, int age, string course, string branch) : kiit(name, roll\_no, age, course, branch)

{

this->book\_id = book\_id;

this->book\_name = book\_name;

this->author\_name = author\_name;

this->price = price;

}

void display()

{

kiit::display();

cout << "Book ID: " << book\_id << endl;

cout << "Book Name: " << book\_name << endl;

cout << "Author Name: " << author\_name << endl;

cout << "Price: " << price << endl;

}

friend void display(Library &l);

static void display\_static()

{

cout << "Static member function called" << endl;

}

static int count;

inline void display\_inline()

{

cout << "Inline function called" << endl;

}

void display(int a)

{

cout << "Function overloading called" << endl;

}

void display\_overriding()

{

cout << "Function overriding called" << endl;

}

void operator + (Library &l)

{

cout << "Operator overloading called" << endl;

}

~Library()

{

cout << "Destructor called" << endl;

}

};

void display(Library &l)

{

cout << "Friend function called" << endl;

}

int Library::count = 0; // static data member

int main()

{

Library l(1, "C++", "abc", 600, "abc", 12, 201, "B.Tech", "CSE");

l.display();

display(l);

Library::display\_static();

l.display\_inline();

l.display(1);

l.display\_overriding();

Library l1(2, "python", "abc", 600, "abc", 12, 201, "B.Tech", "CSE");

l + l1;

return 0;

}