TEAM 1

TEAM LEAD :

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LAB PROGRAMS : 24/5/2022

QUESTION 1

Create a small database, which will be used to store data about books. For a certain book, we want to keep the following information:

Title

Author

The program must be able to store 10 books, and the user will be allowed to:

Add data for one book

Display all the entered books (just title and author, in the same line)

Search for the book(s) with a certain title

Exit the program

PROGRAM :

```csharp
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace Create

{
    class Books
    {
        string Title, Author_name;
        int Id;
        public Books()
        {
            this.Title = "";
            this.Author_name = "";
            this.Id = 00;

        }
        public Books(string title, string author_name, int id)
        {
            this.Title = title;
            this.Author_name = author_name;
            this.Id = id;
        }

        public void input()
        {
            Console.Write("Enter the Book Name :");
            Title = Console.ReadLine();

            Console.Write("Enter the Author Name :");
            Author_name = Console.ReadLine();

            Console.Write("Enter the Id :");
            Id =int.Parse(Console.ReadLine());
        }
        public void output()
        {
            Console.WriteLine("Book Details : Book Name – {0} , Author – {1} , Id – {2} ",
Title,Author_name, Id);
        }

    }
    class Program
    { static void Main(string[] args)

        {
            Books[]Obj = new Books[3];
            Console.WriteLine("Enter 3 books details");
            for(int i = 0; i < 3; i++)
            {
                Obj[i] = new Books();
                Obj[i].input();

            }

            Books Obj2 = new Books("GOT","Jon Snow",004);
            int a;
            Console.WriteLine(" To Show the list of books enter 1 or Any no to exit");
            a = int.Parse(Console.ReadLine());
             if(a == 1)
            {
```

```csharp
                for(int i = 0; i < 3; i++)
                {
                    Obj[i].output();
                }
                    Obj2.output();

            }
            else
            {
                Console.WriteLine("ThankYou");
            }



        }


    }


}
```

OUTPUT :

```
Microsoft Visual Studio Debug Console
Enter 3 books details
Enter the Book Name :abc
Enter the Author Name :aaa
Enter the Id :001
Enter the Book Name :bac
Enter the Author Name :bbb
Enter the Id :003
Enter the Book Name :cab
Enter the Author Name :ccc
Enter the Id :002
 To Show the list of books enter 1 or Any no to exit
1
Book Details : Book Name - abc , Author - aaa , Id - 1
Book Details : Book Name - bac , Author - bbb , Id - 3
Book Details : Book Name - cab , Author - ccc , Id - 2
Book Details : Book Name - GOT , Author - Jon Snow , Id - 4

D:\DISK-B\.NET\dotnet\Create\bin\Debug\net6.0\Create.exe (process 10796) exited with code 0.
To automatically close the console when debugging stops, enable Tools->Options->Debugging->Automatically close the console when debugging stops.
Press any key to close this window . . .
```

QUESTION 2

Define a class called Library with the following description : Instance variables/data members : int acc_num — stores the accession number of the book String title — stores the title of the book String author — stores the name of the author Member methods: (i) void input ( ) — To input and store the accession number, title and author. (ii) void compute ( ) — To accept the number of days late, calculate the display the fine charged at the rate of Rs. 2 per day. (iii) void display( ) — To display the details in the following format:
Accession Number Title Author

PROGRAM :

```
using System;
namespace Test
{
    class Library
    {
        int acc_num, duedate, issueddate;
        string title, author;

        public Library(int date1)
        {
            issueddate = date1;
            duedate = date1 + 10;
        }


        void icreate()
        {
            Console.Write("Enter account number : ");
            acc_num = int.Parse(Console.ReadLine());
            Console.Write("Enter Book title : ");
            title = Console.ReadLine();
            Console.Write("Enter Book author : ");
            author = Console.ReadLine();
        }

        void icompute(int submitedate)
        {
            if (submitedate > duedate)
            {
                int xsday = submitedate - duedate;
                int fine = (xsday) * 2;
                Console.WriteLine("The book was issued on {0}", issueddate);
                Console.WriteLine("You had 10 days to return back but you took {0} so u finned
for those {1} day ", xsday + 10, xsday);
                Console.WriteLine("Your fine amount is Rs {0}", fine);
            }
            else
            {
                Console.WriteLine("You submitted book on time so no issues . Thanks for the
Cooperatation ");
```

```csharp
        }

    }

    public void iout()
    {
        int a;
        icreate();
        Console.WriteLine("Your Account number is {0}", acc_num);
        Console.WriteLine("Book details : Title - {0} , Author - {1}", title, author);
        Console.Write("Enter the Submittion date : ");
        a = int.Parse(Console.ReadLine());
        Console.WriteLine("Issued Date - {0} , Submitted {1}", issueddate, a);
        icompute(a);


    }


}

class Program
{
    static void Main(string[] args)
    {
        Console.WriteLine("Welcome to Team1's Library ;p");
        Library Obj1 = new Library(5);
        Obj1.iout();
        Console.WriteLine("Thanks for visiting  :)");

    }
}
}
```
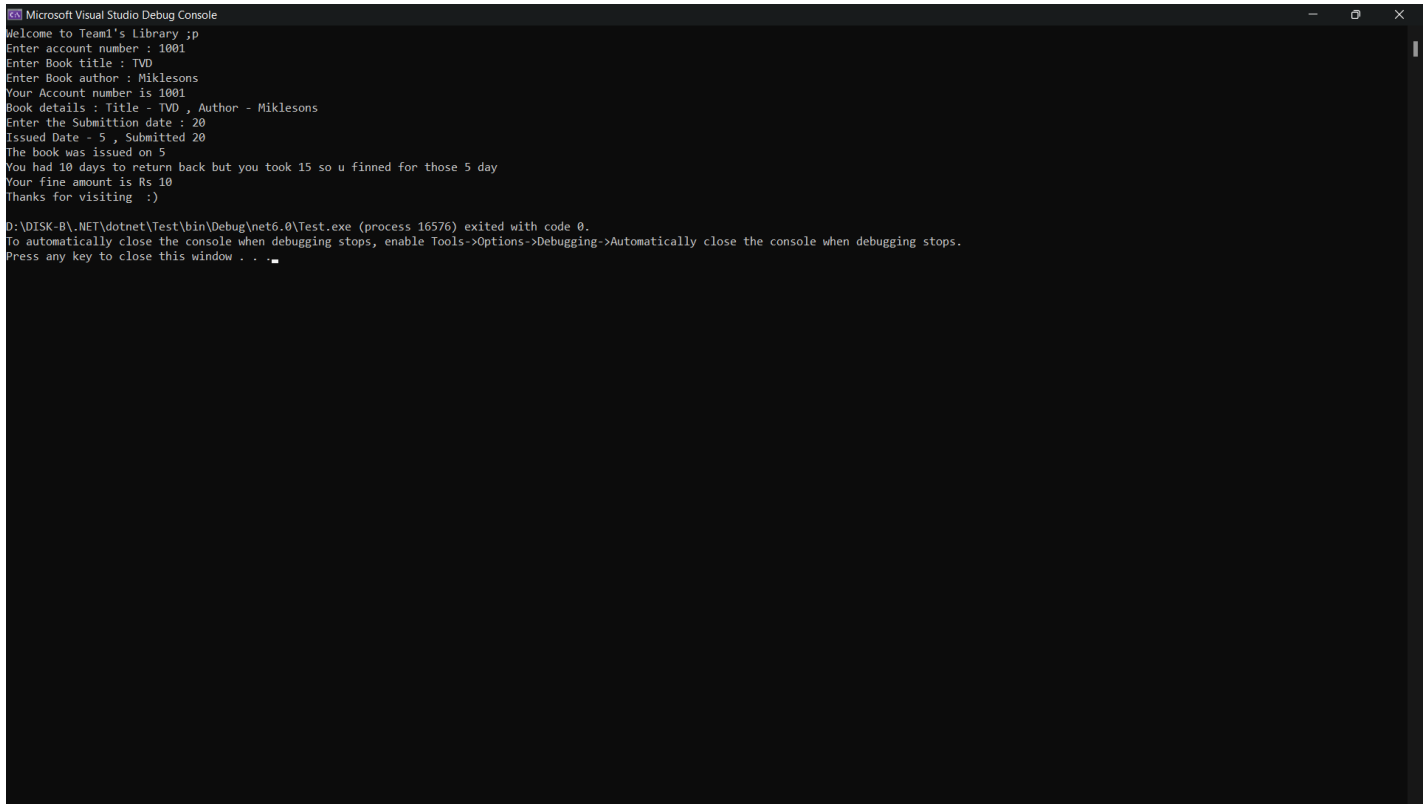
OUTPUT

WITH FINE

WITHOUT FINE

```
Microsoft Visual Studio Debug Console

Welcome to Team1's Library ;p
Enter account number : 1001
Enter Book title : TVD
Enter Book author : Miklesons
Your Account number is 1001
Book details : Title - TVD , Author - Miklesons
Enter the Submittion date : 15
Issued Date - 5 , Submitted 15
You submitted book on time so no issues . Thanks for the Cooperatation
Thanks for visiting  :)

D:\DISK-B\.NET\dotnet\Test\bin\Debug\net6.0\Test.exe (process 17420) exited with code 0.
To automatically close the console when debugging stops, enable Tools->Options->Debugging->Automatically close the console when debugging stops.
Press any key to close this window . . .
```