

Library management system

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DECLARATION

I do hereby declare that the work reported in this project report was exclusively carried out by me under the supervision of R.M.K.A. Rasika Sampath Rathnayaka. It describes the results of my own independent work except where due reference has been made in the text. No part of this project report has been submitted earlier or concurrently for the same or any other degree.

Date:

Signature of the Candidate

Certified by:

Supervisor (Name):

Date:

(Signature):

Manager of Esoft (Name):.....

Date:

(Signature):

ESOFT METRO CAMPUS

ABSTRACT

library management system

By DİTEC – INT-112

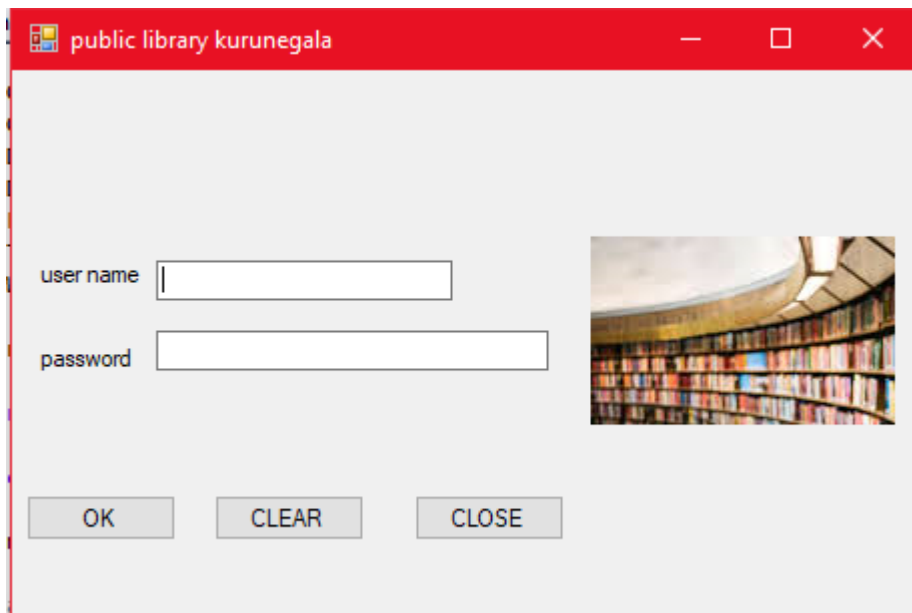
Library system is an programme that used by librarian to manage the library using an electronic system that can record data of members, addition of members, books, addition of books, borrowing of books, return of books...etc.

With this electronic system there will be no loss of member records, book records which generally happen when a non-electronic system is used.

If user's position is Admin, the user is able to generate different kinds of report like lists of members registered, list of books issue and return reports

All these modules are able to help librarian to manage the library with more convenience and in a more efficient way as compared way as compared to library system which are not electronic

Logging Page



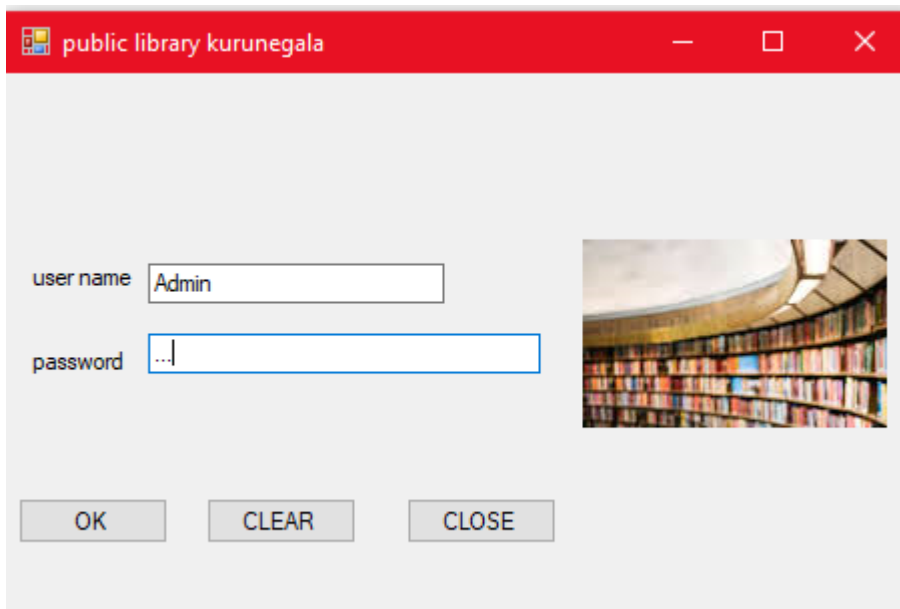
public library kurunegala

user name

password

OK CLEAR CLOSE

This is the logging page. You will need a User name and a password to pass this page. After selecting the user name and password then click OK.



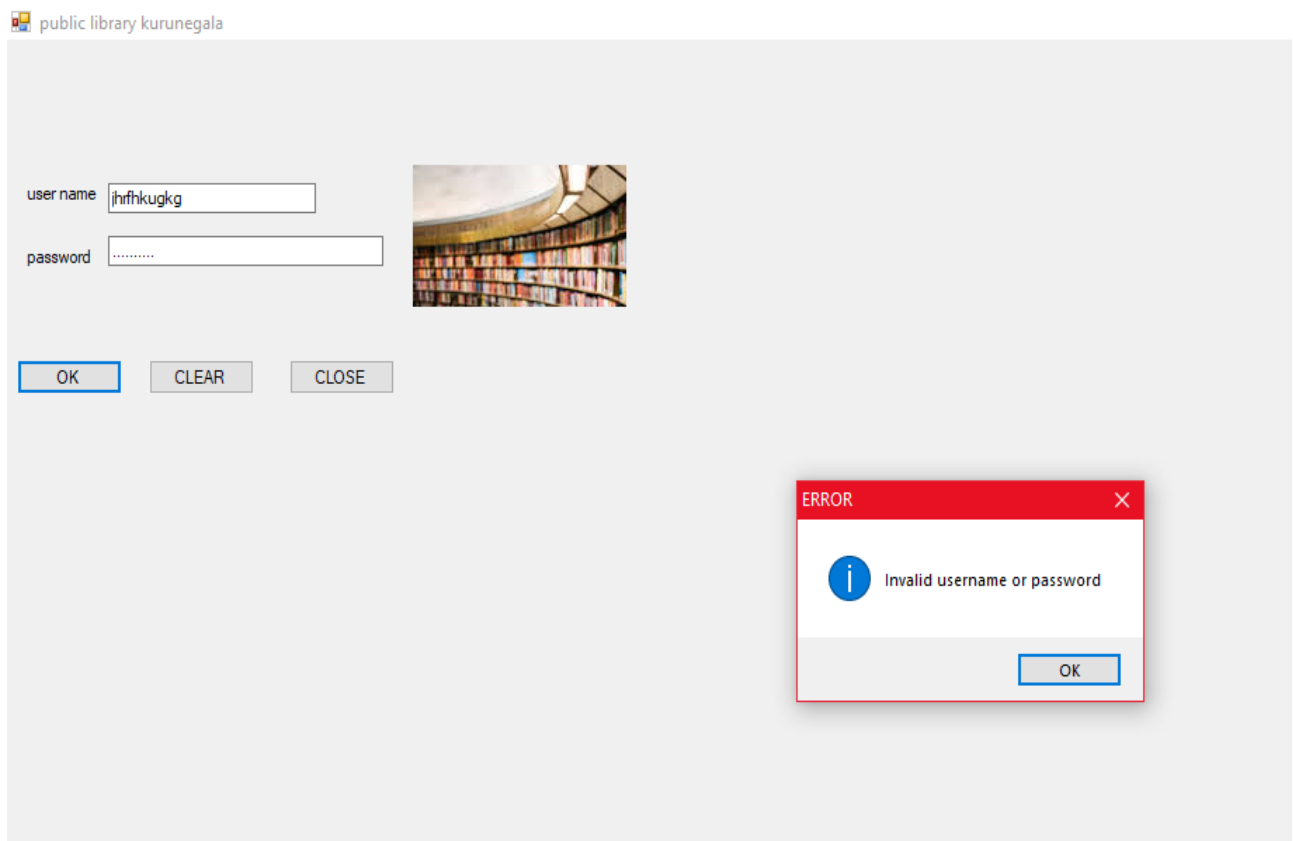
public library kurunegala

user name

password

OK CLEAR CLOSE

If you input a invalid User name or password, Error can be appeared



Coding of Logging Page

```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Windows.Forms;

namespace Library_Management_System
{
    public partial class Form4 : Form
    {
        public Form4()
        {
            InitializeComponent();
        }
        string user, pass;
        private void pictureBox1_Click(object sender, EventArgs e)
        {

        }

        private void button1_Click(object sender, EventArgs e)
        {
            user = txtusername.Text;
            pass=txtpassword.Text;

            if (user=="Admin" && pass=="123")
            {
                MDIParent1 main = new MDIParent1();
                main.Show();
            }

            else
            {

```



```
        MessageBox.Show("Invalid username or  
password", "ERROR", MessageBoxButtons.OK, MessageBoxIcon.Information);  
  
    }  
  
    }  
  
    private void button2_Click(object sender, EventArgs e)  
    {  
        user = txtusername.Text;  
        pass = txtpassword.Text;  
  
    }  
  
    private void button3_Click(object sender, EventArgs e)  
    {  
        Close();  
    }  
}  
}
```

Admin Logging Page



Coding of Admin Logging Page

```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Windows.Forms;

namespace Library_Management_System
{
    public partial class MDIParent1 : Form
    {
        private int childFormNumber = 0;

        public MDIParent1()
        {
            InitializeComponent();
        }

        private void ShowNewForm(object sender, EventArgs e)
        {
            Form childForm = new Form();
            childForm.MdiParent = this;
            childForm.Text = "Window " + childFormNumber++;
            childForm.Show();
        }

        private void OpenFile(object sender, EventArgs e)
        {
            OpenFileDialog openFileDialog = new OpenFileDialog();
            openFileDialog.InitialDirectory =
Environment.GetFolderPath(Environment.SpecialFolder.Personal);
            openFileDialog.Filter = "Text Files (*.txt)|*.txt|All
Files (*.*)|*.*";
            if (openFileDialog.ShowDialog(this) == DialogResult.OK)
            {
                string FileName = openFileDialog.FileName;
            }
        }

        private void SaveAsToolStripMenuItem_Click(object sender,
EventArgs e)
        {
            SaveFileDialog saveFileDialog = new SaveFileDialog();
            saveFileDialog.InitialDirectory =
Environment.GetFolderPath(Environment.SpecialFolder.Personal);
            saveFileDialog.Filter = "Text Files (*.txt)|*.txt|All
Files (*.*)|*.*";
            if (saveFileDialog.ShowDialog(this) == DialogResult.OK)
            {
                string FileName = saveFileDialog.FileName;
            }
        }
    }
}
```

```

        }
    }

    private void ExitToolsStripMenuItem_Click(object sender,
EventArgs e)
    {
        this.Close();
    }

    private void CutToolStripMenuItem_Click(object sender,
EventArgs e)
    {
    }

    private void CopyToolStripMenuItem_Click(object sender,
EventArgs e)
    {
    }

    private void PasteToolStripMenuItem_Click(object sender,
EventArgs e)
    {
    }

    private void ToolBarToolStripMenuItem_Click(object sender,
EventArgs e)
    {
    }

    private void StatusBarToolStripMenuItem_Click(object sender,
EventArgs e)
    {
    }

    private void CascadeToolStripMenuItem_Click(object sender,
EventArgs e)
    {
        LayoutMdi(MdiLayout.Cascade);
    }

    private void TileVerticalToolStripMenuItem_Click(object
sender, EventArgs e)
    {
        LayoutMdi(MdiLayout.TileVertical);
    }

    private void TileHorizontalToolStripMenuItem_Click(object
sender, EventArgs e)
    {
        LayoutMdi(MdiLayout.TileHorizontal);
    }

    private void ArrangeIconsToolStripMenuItem_Click(object
sender, EventArgs e)
    {
        LayoutMdi(MdiLayout.ArrangeIcons);
    }

    private void CloseAllToolStripMenuItem_Click(object sender,
EventArgs e)
    {
    }

```

```

        foreach (Form childForm in MdiChildren)
        {
            childForm.Close();
        }
    }

    private void button1_Click(object sender, EventArgs e)
    {
        frmmember member = new frmmember();
        member.Show();
    }

    private void button2_Click(object sender, EventArgs e)
    {
        Frmbook book = new Frmbook();
        book.Show();
    }

    private void button3_Click(object sender, EventArgs e)
    {
        Frmall all = new Frmall();
        all.Show();
    }

    private void button4_Click(object sender, EventArgs e)
    {
        Close();
    }
}
}

```

Member Registration Page

member registration form

Member ID

Name

Address

Tel

NIC

Date of birth

Membership type

Gender ☐ Male ☐ Female

Mmembersh Date

Ex Date

This form is used to register a member .

Coding of Admin Logging Page

```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Windows.Forms;

namespace Library_Management_System
{
    public partial class frmmember : Form
    {
        public frmmember()
        {
            InitializeComponent();
        }
        DataTable dt;
        DataRow dr;
        string gender, memid;
        DialogResult res;

        public void clear()
        {
            txtid.Clear();
            txtname.Clear();
            txtaddress.Clear();
            txttel.Clear();
            txtnic.Clear();
            cmbtype.Text = "";
            dtpdob.Text = "";
            dtpmemdate.Text = "";
            dtpexdate.Text = "";
            radmale.Checked = false;
            radfemale.Checked = false;
        }

        private void frmmember_Load(object sender, EventArgs e)
        {
            // TODO: This line of code loads data into the
            '_library_system_DataSet.member' table. You can move, or remove it,
            as needed.

            this.memberTableAdapter.Fill(this._library_system_DataSet.member);
        }

        private void button1_Click(object sender, EventArgs e)
        {
            try
            {

                this.memberTableAdapter.Fill(this._library_system_DataSet.member);
```

```

        dt = _library_system_DataSet.member;
        dr = dt.NewRow();
        dr["MemberId"] = txtid.Text;
        dr["MemberName"] = txtname.Text;
        dr["Address"] = txtaddress.Text;
        dr["Tel"] = txtname.Text;
        dr["NIC"] = txtnic.Text;
        dr["DOB"] = dtpdob.Text;
        dr["Type"] = cmbtype.Text;
        dr["MembershipDate"] = dtpmemdate.Text;
        dr["ExDate"] = dtpexdate.Text;
        if (radmale.Checked == true)
        {
            gender = "male";
        }
        else if (radfemale.Checked == true)
        {
            gender = "female";
        }
        dr["Gender"] = gender;

        dt.Rows.Add(dr);
        memberTableAdapter.Update(_library_system_DataSet );
        MessageBox.Show("Record Added Successfully..", "ADD
RECORD", MessageBoxButtons.OK, MessageBoxIcon.Information);
        this.clear();
    } //end of the try
    catch
    {
        MessageBox.Show("Invalid MemberID", "ERROR",
        MessageBoxButtons.OK, MessageBoxIcon.Error);
    }

}

private void button2_Click(object sender, EventArgs e)
{
    try
    {
        this.memberTableAdapter.Fill(this._library_system_DataSet.member);
        dt = _library_system_DataSet.member;
        memid = txtid.Text;
        dr = dt.Rows.Find(memid);
        txtname.Text = dr["MemberName"].ToString();
        txtaddress.Text = dr["Address"].ToString();
        txttel.Text = dr["Tel"].ToString();
        txtnic.Text = dr["NIC"].ToString();
        dtpdob.Text = dr["DOB"].ToString();
        dtpmemdate.Text = dr["MembershipDate"].ToString();
        dtpexdate.Text = dr["Exdate"].ToString();
        cmbtype.Text = dr["Type"].ToString();
        gender = dr["Gender"].ToString();

        if (gender == "male")
        {
            radmale.Checked = true;
        }
        else if (gender == "female")
        {
            radfemale.Checked = true;
        }
    }
}

```



```

        } //end of the try
        catch
        {
            MessageBox.Show("Record not found", "ERROR",
                MessageBoxButtons.OK, MessageBoxIcon.Error);
        }
    }

    private void button3_Click(object sender, EventArgs e)
    {
        this.memberTableAdapter.Fill(this._library_system_DataSet.member );
        dt = _library_system_DataSet.member;
        memid = txtid.Text;
        dr = dt.Rows.Find(memid);
        dr.BeginEdit();
        dr["MemberName"] = txtname.Text;
        dr["Address"] = txtaddress.Text;
        dr["Tel"] = txtname.Text;
        dr["NIC"] = txtnic.Text;
        dr["DOB"] = dtpdob.Text;
        dr["Type"] = cmbtype.Text;
        dr["MembershipDate"] = dtpmemdate.Text;
        dr["ExDate"] = dtpexdate.Text;

        if (radmale.Checked == true)
        {
            gender = "male";
        }
        else if (radfemale.Checked == true)
        {
            gender = "female";
        }
        dr["Gender"] = gender;
        dr.EndEdit();

        memberTableAdapter.Update(_library_system_DataSet );
        MessageBox.Show("Record Updated", "Update",
            MessageBoxButtons.OK, MessageBoxIcon.Information);
        this.clear();
    }

    private void button4_Click(object sender, EventArgs e)
    {
        this.memberTableAdapter.Fill(this._library_system_DataSet.member );
        dt = _library_system_DataSet.member;
        memid = txtid.Text;
        dr = dt.Rows.Find(memid);

        res = MessageBox.Show("Delete???", "DELETE",
            MessageBoxButtons.YesNo, MessageBoxIcon.Question);
        if (res == DialogResult.Yes)
        {
            dr.Delete();

            memberTableAdapter.Update(_library_system_DataSet.member);
        }
    }

```

```
        MessageBox.Show("Record Deleted", "DELETE",  
        MessageBoxButtons.OK, MessageBoxIcon.Information);  
        this.clear();  
    }  
}  
  
private void button5_Click(object sender, EventArgs e)  
{  
    this.clear();  
}  
}
```

ADD Button

member registration form

Member ID: 4488

Name: A.D Jayarathna

Address: no.7, Colombo, Jayela

Tel: 073xxxxxxx

NIC: 3625149875x

Date of birth: Saturday, 22 June 2019

Membership type: standard

Gender: ☒ Male ☐ Female

Mmembersh Date: Friday, 21 June 2019

Ex Date: Sunday, 30 June 2019

ADD SEARCH UPDATE DELETE CLEAR

ADD RECORD

Record Added Succesfully..

OK

Fill the data of the form & click ADD

Coding of ADD Button

```
private void button1_Click(object sender, EventArgs e)
{
    try
    {
        this.memberTableAdapter.Fill(this._library_system_DataSet.member);
        dt = _library_system_DataSet.member;
        dr = dt.NewRow();
        dr["MemberId"] = txtid.Text;
        dr["MemberName"] = txtname.Text;
        dr["Address"] = txtaddress.Text;
```

```

        dr["Tel"] = txtname.Text;
        dr["NIC"] = txtnic.Text;
        dr["DOB"] = dtpdob.Text;
        dr["Type"] = cmbtype.Text;
        dr["MembershipDate"] = dtpmemdate.Text;
        dr["ExDate"] = dtpexdate.Text;
        if (radmale.Checked == true)
        {
            gender = "male";
        }
        else if (radfemale.Checked == true)
        {
            gender = "female";
        }
        dr["Gender"] = gender;

        dt.Rows.Add(dr);
        memberTableAdapter.Update(_library_system_DataSet );
        MessageBox.Show("Record Added Succesfully..", "ADD
RECORD", MessageBoxButtons.OK, MessageBoxIcon.Information);
        this.clear();
    } //end of the try
    catch
    {
        MessageBox.Show("Invalid MemberID", "ERROR",
        MessageBoxButtons.OK, MessageBoxIcon.Error);
    }

```

Search Button

member registration form

Member ID: 4488

Name: A.D Jayarathna

Address: no.7, Colombo, Jayela

Tel: A.D Jayarathna

NIC: 3625149875x

Date of birth: Saturday, 22 June 2019

Membership type: standard

Gender: ☒ Male ☐ Female

Mnebership Date: Friday, 21 June 2019

Ex Date: Sunday, 30 June 2019

ADD SEARCH UPDATE DELETE CLEAR

Coding Of Search Button

```
}  
  
private void button2_Click(object sender, EventArgs e)  
{  
    try  
    {  
  
this.memberTableAdapter.Fill(this._library_system_DataSet.member);  
        dt = _library_system_DataSet.member;  
    }  
    }  
}
```

```

        memid = txtid.Text;
        dr = dt.Rows.Find(memid);
        txtname.Text = dr["MemberName"].ToString();
        txtaddress.Text = dr["Address"].ToString();
        txttel.Text = dr["Tel"].ToString();
        txtnic.Text = dr["NIC"].ToString();
        dtpdob.Text = dr["DOB"].ToString();
        dtpmemdate.Text = dr["MembershipDate"].ToString();
        dtpexdate.Text = dr["Exdate"].ToString();
        cmbtype.Text = dr["Type"].ToString();
        gender = dr["Gender"].ToString();

        if (gender == "male")
        {
            radmale.Checked = true;
        }
        else if (gender == "female")
        {
            radfemale.Checked = true;
        }
    } //end of the try
    catch
    {
        MessageBox.Show("Record not found", "ERROR",
        MessageBoxButtons.OK, MessageBoxIcon.Error);
    }
}

```

UPDATE Button

The screenshot shows a web application window titled "member registration form". The form contains the following fields and controls:

- Member ID: 4488
- Name: A.D Jayarathna
- Address: no.7, Colombo, Jayela
- Tel: 071xxxxxx
- NIC: 3625149875x
- Date of birth: Saturday, 22 June 2019
- Membership type: standard
- Gender: ☒ Male ☐ Female
- Mmebership Date: Friday, 21 June 2019
- Ex Date: Sunday, 30 June 2019

At the bottom of the form are five buttons: ADD, SEARCH, UPDATE, DELETE, and CLEAR. The "UPDATE" button is highlighted with a blue border.

An "Update" dialog box is open on the right side of the form. It has a red header bar with the title "Update" and a close button (X). The dialog contains an information icon (i) and the text "Record Updated". At the bottom of the dialog is an "OK" button.

If you want to change any data or detail you can use the update button

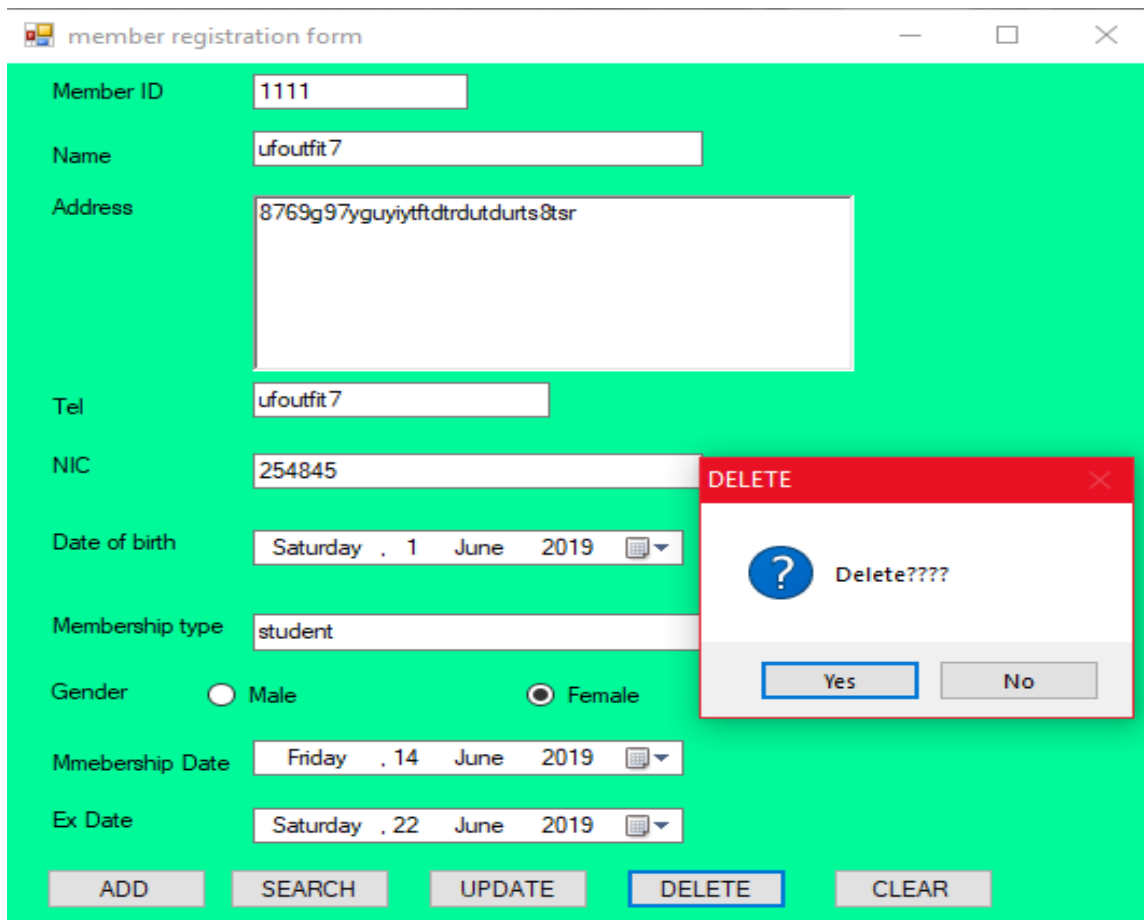
Coding of UPDATE Button

```
private void button3_Click(object sender, EventArgs e)
{
    this.memberTableAdapter.Fill(this._library_system_DataSet.member );
    dt = _library_system_DataSet.member;
    memid = txtid.Text;
    dr = dt.Rows.Find(memid);
    dr.BeginEdit();
    dr["MemberName"] = txtname.Text;
    dr["Address"] = txtaddress.Text;
    dr["Tel"] = txtname.Text;
    dr["NIC"] = txtnic.Text;
    dr["DOB"] = dtpdob.Text;
    dr["Type"] = cmbtype.Text;
    dr["MembershipDate"] = dtpmemdate.Text;
    dr["ExDate"] = dtpexdate.Text;

    if (radmale.Checked == true)
    {
        gender = "male";
    }
    else if (radfemale.Checked == true)
    {
        gender = "female";
    }
    dr["Gender"] = gender;
    dr.EndEdit();

    memberTableAdapter.Update(_library_system_DataSet );
    MessageBox.Show("Record Updated", "Update",
    MessageBoxButtons.OK, MessageBoxIcon.Information);
    this.clear();
}
```


DELETE Button



The screenshot shows a web application window titled "member registration form". The form contains the following fields and controls:

- Member ID: 1111
- Name: ufoutfit 7
- Address: 8769g97yguyiyftdtrdutdurts8tsr
- Tel: ufoutfit 7
- NIC: 254845
- Date of birth: Saturday, 1 June 2019
- Membership type: student
- Gender: ☐ Male ☒ Female
- Mmebership Date: Friday, 14 June 2019
- Ex Date: Saturday, 22 June 2019

At the bottom of the form are five buttons: ADD, SEARCH, UPDATE, DELETE, and CLEAR. The DELETE button is highlighted with a blue border.

Overlaid on the form is a red dialog box titled "DELETE". It contains a question mark icon and the text "Delete????". At the bottom of the dialog are two buttons: "Yes" and "No".

If you want to remove or delete a member , First you have to search the member and click the delete the button, After that click Yes.

Coding Of DELETE Button.

```
private void button4_Click(object sender, EventArgs e)
{
    this.memberTableAdapter.Fill(this._library_system_DataSet.member );
    dt = _library_system_DataSet.member;
    memid = txtid.Text;
    dr = dt.Rows.Find(memid);

    res = MessageBox.Show("Delete???", "DELETE",
        MessageBoxButtons.YesNo, MessageBoxIcon.Question);
    if (res == DialogResult.Yes)
    {
        dr.Delete();

        memberTableAdapter.Update(_library_system_DataSet.member);
        MessageBox.Show("Record Deleted", "DELETE",
            MessageBoxButtons.OK, MessageBoxIcon.Information);
        this.clear();
    }
}
```

CLEAR Button




If you want to clear the form, Click CLEAR

Coding of CLEAR Button.

```
private void button5_Click(object sender, EventArgs e)
{
    this.clear();
}
```

BOOK REGISTRATION FORM



The image shows a screenshot of a web application window titled "book form". The window has a red title bar with standard minimize, maximize, and close buttons. The main content area has a light blue background. The form contains the following fields and controls:

- Book ID:** A single-line text input field.
- Book Name:** A single-line text input field.
- ISBN No.:** A single-line text input field.
- Author:** A single-line text input field.
- Book Category:** A dropdown menu with a downward arrow.
- Language:** A dropdown menu with a downward arrow.
- Status:** Two radio buttons labeled "Donate" and "Purchase".
- Date:** A date picker showing "Friday, 7 June 2019" with a calendar icon.
- Description:** A multi-line text area.

At the bottom of the form, there are five buttons: "ADD", "SEARCH", "UPDATE", "DELETE", and "CLEAR".

This form is use to register new books

Coding of Book Registration

form

```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Windows.Forms;

namespace Library_Management_System
{
    public partial class Frmbook : Form
    {
        public Frmbook()
        {
            InitializeComponent();
        }
        DataTable dt;
        DataRow dr;
        string Status, bookid;
        DialogResult res;

        public void clear()
        {
            txtid.Clear();
            txtbookname.Clear();
            txtispn.Clear();
            txtauthor.Clear();
            cmbcategory.Text = "";
            cmblanguage.Text = "";
            raddonate.Checked = false;
            radpurchase.Checked = false;
            dtpdate.Text = "";
            txtdescription.Clear();
        }

        private void button1_Click(object sender, EventArgs e)
        {
            this.bookTableAdapter.Fill(this._library_system_DataSet1.book);
            dt = _library_system_DataSet1.book;
            dr = dt.NewRow();
            dr.BeginEdit();
            dr["BookId"] = txtid.Text;
            dr["BookName"] = txtbookname.Text;
            dr["ISPN"] = txtispn.Text;
            dr["Author"] = txtauthor.Text;
            dr["category"] = cmbcategory.Text;
            dr["Language"] = cmblanguage.Text;
            dr["DDate"] = dtpdate.Text;
```

```

        dr["Description"] = txtdescription.Text;

        if (raddonate.Checked == true)
        {
            Status = "donate";
        }

        else if (radpurchase.Checked == true)
        {
            Status = "purchase";
        }

        dr["status"] = Status;
        dr.EndEdit();
        dt.Rows.Add(dr);
        bookTableAdapter.Update(_library_system_DataSet1);
        MessageBox.Show("Record Added Succesfully.....", "ADD
RECORD", MessageBoxButtons.OK, MessageBoxIcon.Information);
        this.clear();

    }

    private void Frmbook_Load(object sender, EventArgs e)
    {
        // TODO: This line of code loads data into the
        '_library_system_DataSet1.book' table. You can move, or remove it,
        as needed.

        this.bookTableAdapter.Fill(this._library_system_DataSet1.book);
    }

    private void button2_Click(object sender, EventArgs e)
    {
        try
        {
            this.bookTableAdapter.Fill(this._library_system_DataSet1.book );
            dt = _library_system_DataSet1.book;
            bookid = txtid.Text;
            dr = dt.Rows.Find(bookid);
            txtid.Text = dr["BookId"].ToString();
            txtbookname.Text = dr["BookName"].ToString();
            txtispn.Text = dr["ISPN"].ToString();
            txtauthor.Text = dr["Author"].ToString();
            cmbcatergory.Text = dr["catergory"].ToString();
            cmblanguage.Text = dr["Language"].ToString();
            dtptime.Text = dr["DDate"].ToString();
            txtdescription.Text = dr["Description"].ToString();
            Status = dr["status"].ToString();

            if (raddonate.Checked == true)
            {
                Status = "donate";
            }

            else if (radpurchase.Checked == true)
            {

```

```

        Status = "purchase";
    }

    } //end of the try
    catch
    {
        MessageBox.Show("Record not found", "ERROR",
        MessageBoxButtons.OK, MessageBoxIcon.Error);
    }
}

private void button3_Click(object sender, EventArgs e)
{
    try
    {
        this.bookTableAdapter.Fill(this._library_system_DataSet1.book);
        dt = _library_system_DataSet1.book;
        dr = dt.NewRow();
        dr.BeginEdit();
        dr["BookName"] = txtbookname.Text;
        dr["ISPN"] = txtispn.Text;
        dr["Author"] = txtauthor.Text;
        dr["category"] = cmbcategory.Text;
        dr["Language"] = cmblanguage.Text;
        dr["DDate"] = dtpdate.Text;
        dr["Description"] = txtdescription.Text;

        if (raddonate.Checked == true)
        {
            Status = "donate";
        }

        else if (radpurchase.Checked == true)
        {
            Status = "purchase";
        }

        dr["status"] = Status;
        dr.EndEdit();

        bookTableAdapter.Update(_library_system_DataSet1.book);
        MessageBox.Show("Record Updated Successfully.....",
        "UPDATE", MessageBoxButtons.OK, MessageBoxIcon.Information);
        this.clear();
    }
    catch
    {
    }
}

private void button4_Click(object sender, EventArgs e)
{
    this.bookTableAdapter.Fill(this._library_system_DataSet1.book);
    dt = _library_system_DataSet1.book;
    bookid = txtid.Text;
    dr = dt.Rows.Find(bookid);

```

```

        res = MessageBox.Show("Delete?", "DELETE",
        MessageBoxButtons.YesNo, MessageBoxIcon.Information);
        if (res == DialogResult.Yes)
        {

            dr.Delete();

            bookTableAdapter.Update(_library_system_DataSet1.book);
            MessageBox.Show("Record Deleted", "DELETE",
            MessageBoxButtons.OK, MessageBoxIcon.Information);
            this.clear();
        }
    }

    private void button5_Click(object sender, EventArgs e)
    {
        this.clear();
    }
}

```

ADD Button

If you need to add a new book , first You have to fill the form and click ADD button and click OK

Coding of the ADD Button.

```
private void button1_Click(object sender, EventArgs e)
{
    this.bookTableAdapter.Fill(this._library_system_DataSet1.book);
    dt = _library_system_DataSet1.book;
    dr = dt.NewRow();
    dr.BeginEdit();
    dr["BookId"] = txtid.Text;
    dr["BookName"] = txtbookname.Text;
    dr["ISBN"] = txtispn.Text;
    dr["Author"] = txtauthor.Text;
    dr["category"] = cmbcategory.Text;
    dr["Language"] = cmblanguage.Text;
    dr["DDate"] = dtptime.Text;
    dr["Description"] = txtdescription.Text;

    if (raddonate.Checked == true)
    {
        Status = "donate";
    }

    else if (radpurchase.Checked == true)
    {
        Status = "purchase";
    }

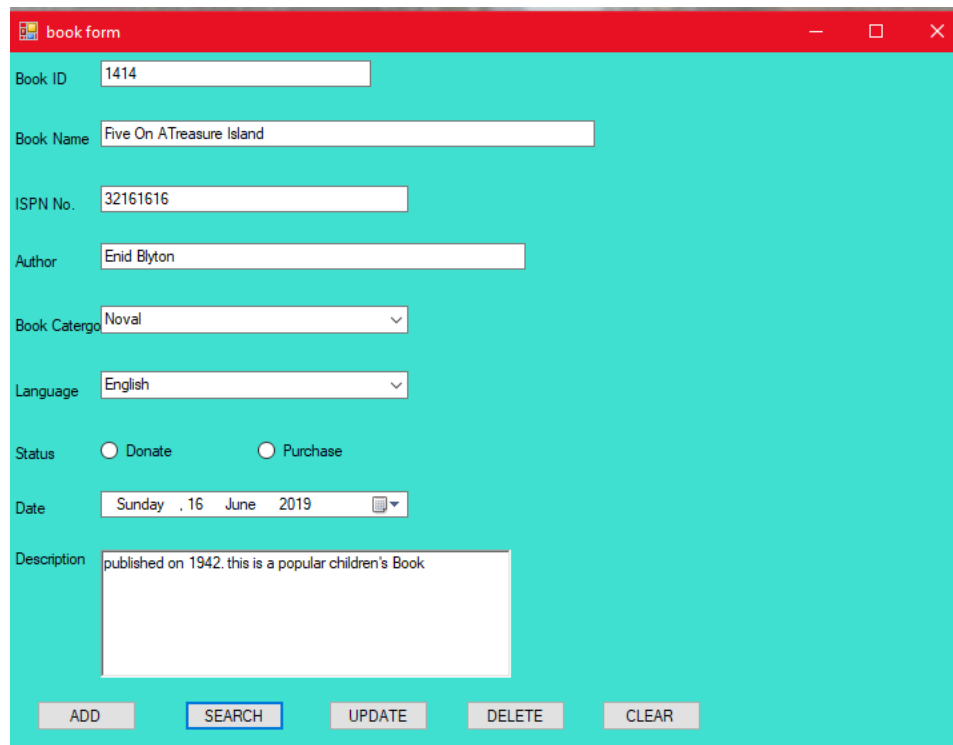
    dr["status"] = Status;
    dr.EndEdit();
    dt.Rows.Add(dr);
    bookTableAdapter.Update(_library_system_DataSet1);
    MessageBox.Show("Record Added Succesfully.....", "ADD
RECORD", MessageBoxButtons.OK, MessageBoxIcon.Information);
    this.clear();

}

private void Frmbook_Load(object sender, EventArgs e)
{
    // TODO: This line of code loads data into the
    '_library_system_DataSet1.book' table. You can move, or remove it,
    as needed.

    this.bookTableAdapter.Fill(this._library_system_DataSet1.book);
}
```

Search Button



If you need to find a book , You have to enter the book id and click SEARCH

Coding of SEARCH Button

```
private void button2_Click(object sender, EventArgs e)
{
    try
    {
        this.bookTableAdapter.Fill(this._library_system_DataSet1.book );
        dt = _library_system_DataSet1.book;
        bookid = txtid.Text;
        dr = dt.Rows.Find(bookid);
        txtid.Text = dr["BookId"].ToString();
        txtbookname.Text = dr["BookName"].ToString();
        txtispn.Text = dr["ISPN"].ToString();
        txtauthor.Text = dr["Author"].ToString();
        cmbcategory.Text = dr["catergory"].ToString();
        cmblanguage.Text = dr["Language"].ToString();
        dtpdate.Text = dr["DDate"].ToString();
        txtdescription.Text = dr["Description"].ToString();
        Status = dr["status"].ToString();
    }
}
```

```

        if (raddonate.Checked == true)
        {
            Status = "donate";
        }

        else if (radpurchase.Checked == true)
        {
            Status = "purchase";
        }

    } //end of the try
    catch
    {
        MessageBox.Show("Record not found", "ERROR",
        MessageBoxButtons.OK, MessageBoxIcon.Error);
    }
}

```

UPDATE Button

The screenshot shows a Windows application window titled "book form". The window has a teal background and contains several input fields: "Book ID", "Book Name", "ISBN No.", "Author", "Book Catego" (with a dropdown arrow), "Language" (with a dropdown arrow), "Status" (with radio buttons for "Donate" and "Purchase"), "Date" (with a calendar icon), and "Description" (a text area). At the bottom, there are five buttons: "ADD", "SEARCH", "UPDATE" (highlighted with a blue border), "DELETE", and "CLEAR". A small red dialog box titled "UPDATE" is open in the foreground, displaying an information icon and the text "Record Updated Succesfully....." with an "OK" button.

If you need to change some data , You can use update Button.

Coding of UPDATE Button

```
private void button3_Click(object sender, EventArgs e)
{
    try
    {
        this.bookTableAdapter.Fill(this._library_system_DataSet1.book);
        dt = _library_system_DataSet1.book;
        dr = dt.NewRow();
        dr.BeginEdit();
        dr["BookName"] = txtbookname.Text;
        dr["ISPN"] = txtispn.Text;
        dr["Author"] = txtauthor.Text;
        dr["category"] = cmbcategory.Text;
        dr["Language"] = cmblanguage.Text;
        dr["DDate"] = dtpdate.Text;
        dr["Description"] = txtdescription.Text;

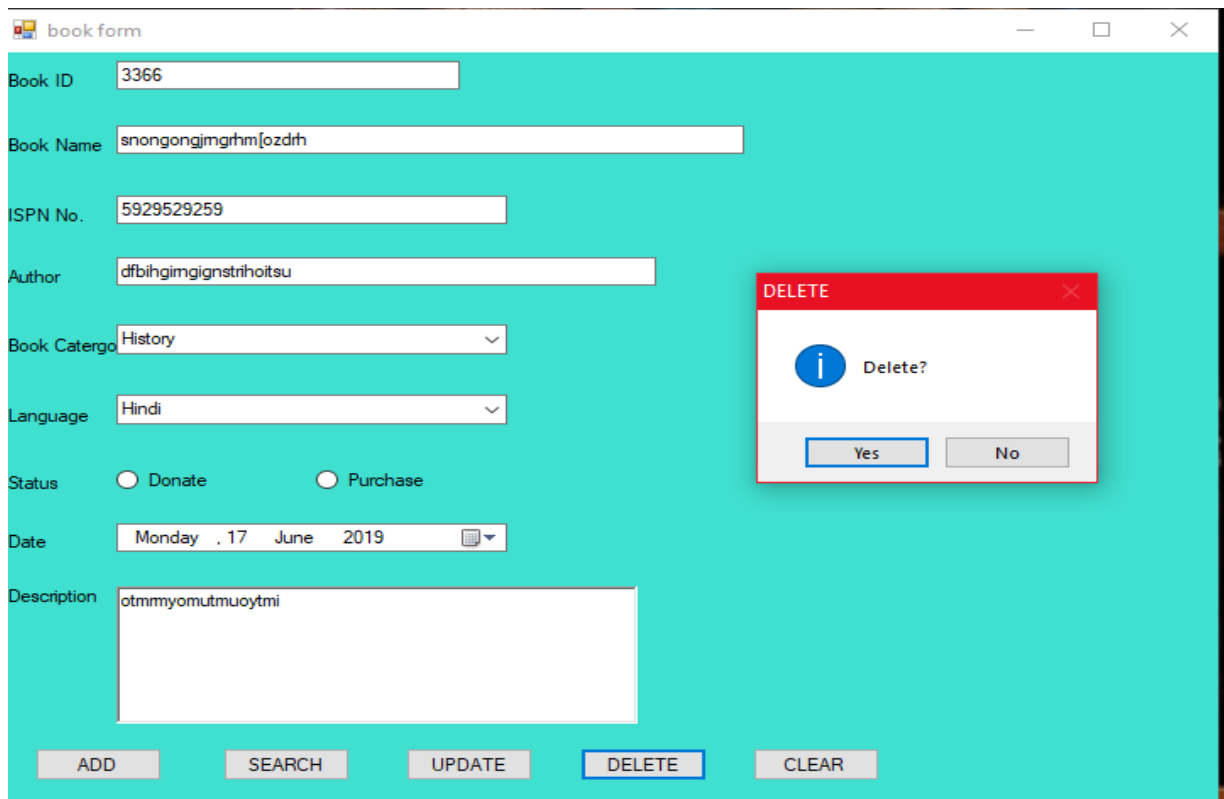
        if (raddonate.Checked == true)
        {
            Status = "donate";
        }

        else if (radpurchase.Checked == true)
        {
            Status = "purchase";
        }

        dr["status"] = Status;
        dr.EndEdit();

        bookTableAdapter.Update(_library_system_DataSet1.book);
        MessageBox.Show("Record Updated Successfully.....",
            "UPDATE", MessageBoxButtons.OK, MessageBoxIcon.Information);
        this.clear();
    }
    catch
    {
    }
}
```

DELETE Button



Coding of DELETE Button

```
private void button4_Click(object sender, EventArgs e)
{
    this.bookTableAdapter.Fill(this._library_system_DataSet1.book);
    dt = _library_system_DataSet1.book;
    bookid = txtid.Text;
    dr = dt.Rows.Find(bookid);

    res = MessageBox.Show("Delete?", "DELETE",
        MessageBoxButtons.YesNo, MessageBoxIcon.Information);
    if (res == DialogResult.Yes)
    {
        dr.Delete();

        bookTableAdapter.Update(_library_system_DataSet1.book);
    }
}
```

```

        MessageBox.Show("Record Deleted", "DELETE",
        MessageBoxButtons.OK, MessageBoxIcon.Information);
        this.clear();
    }
}

```

CLEAR Button

Coding of CLEAR Button

```

private void button5_Click(object sender, EventArgs e)
{
    this.clear();
}

```

Book Borrowing And Returning

Form

book borrowing form

MEMBER ID

Member ID

Name

Select a Member

BOOK DETAILS

Book ID

Name

Select a Book

BOOK BORROWING DETAILS

Book Borrowing Date Book Returning Date Ref Code

Ref Code Issue a Book

BOOK RETURNING DETAILS

Search Ref Code Search Ref Book Returning Date

Fine Details Return a Book


FINE DETAILS

Total Days

Late Days

Fine Per Day

Total Fine



This form is used to book borrowing and book returning process.
This contains member details, book details, book borrowing details, book returning details and fine details.

Coding of Book Borrowing And

Returning Form

```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Windows.Forms;

namespace Library_Management_System
{
    public partial class Frmall : Form
    {
        public Frmall()
        {
            InitializeComponent();
        }
        DataTable dt;
        DataRow dr;
        string memid, bookid, refcode;
        DateTime bor, reted;
        TimeSpan dif;
        float totaldays, latedays, fineperday, totalfine ;

        public void clear()
        {
            txtmemberid.Clear();
            txtmembername.Clear();
            txtbookid.Clear();
            txtbookname.Clear();
            dtpbordate.Text = "";
            dtpreteddate.Text = "";
            txtrefcode.Clear();
            txttotaldays.Clear();
            txtlatedays.Clear();
            cmbfine.Text = "";
            txttotalfine.Clear();

        }

        private void pictureBox1_Click(object sender, EventArgs e)
        {
        }

        private void groupBox5_Enter(object sender, EventArgs e)
        {
        }
    }
}
```



```

private void groupBox4_Enter(object sender, EventArgs e)
{

}

private void groupBox3_Enter(object sender, EventArgs e)
{

}

private void groupBox2_Enter(object sender, EventArgs e)
{

}

private void groupBox1_Enter(object sender, EventArgs e)
{

}

private void pictureBox1_Click_1(object sender, EventArgs e)
{

}

private void Frmall_Load(object sender, EventArgs e)
{
    // TODO: This line of code loads data into the
    '_library_system_DataSet3.all' table. You can move, or remove it, as
    needed.

    this.allTableAdapter.Fill(this._library_system_DataSet3.all);
    // TODO: This line of code loads data into the
    '_library_system_DataSet3.book' table. You can move, or remove it,
    as needed.

    this.bookTableAdapter.Fill(this._library_system_DataSet3.book);
    // TODO: This line of code loads data into the
    '_library_system_DataSet3.member' table. You can move, or remove it,
    as needed.

    this.memberTableAdapter.Fill(this._library_system_DataSet3.member);
    // TODO: This line of code loads data into the
    '_library_system_DataSet2.all' table. You can move, or remove it, as
    needed.

    this.allTableAdapter.Fill(this._library_system_DataSet3.all);
    // TODO: This line of code loads data into the
    '_library_system_DataSet2.book' table. You can move, or remove it,
    as needed.

    this.bookTableAdapter.Fill(this._library_system_DataSet3.book);
    // TODO: This line of code loads data into the
    '_library_system_DataSet2.member' table. You can move, or remove it,
    as needed.

    this.memberTableAdapter.Fill(this._library_system_DataSet3.member);

}

private void button1_Click(object sender, EventArgs e)
{
    try

```

```

        {
            this.memberTableAdapter.Fill(this._library_system_DataSet3.member);
            dt = _library_system_DataSet3.member;
            memid = txtmemberid.Text;
            dr = dt.Rows.Find(memid);
            txtmembername.Text = dr["MemberName"].ToString();
        }
        catch
        {
            MessageBox.Show("Record not found", "ERROR",
                MessageBoxButtons.OK, MessageBoxIcon.Error);
        }
    }

    private void button2_Click(object sender, EventArgs e)
    {
        try
        {
            this.bookTableAdapter.Fill(this._library_system_DataSet3.book);

            this.bookTableAdapter.Fill(this._library_system_DataSet3.book);
            dt = _library_system_DataSet3.book;
            bookid = txtbookid.Text;
            dr = dt.Rows.Find(bookid);
            txtbookname.Text = dr["BookName"].ToString();
        }
        catch
        {
            MessageBox.Show("Record not found", "ERROR",
                MessageBoxButtons.OK, MessageBoxIcon.Error);
        }
    }

    private void button3_Click(object sender, EventArgs e)
    {
        string get = DateTime.Now.ToString("ddMMyyyy");

        txtrefcode.Text = txtmemberid.Text + txtbookid.Text +
get;
    }

    private void button4_Click(object sender, EventArgs e)
    {
        this.allTableAdapter.Fill(this._library_system_DataSet3.all);
        dt = _library_system_DataSet3.all;
        dr = dt.NewRow();
        dr["MemberId"] = txtmemberid.Text;
        dr["MemberName"] = txtmembername.Text;
        dr["BookId"] = txtbookid.Text;
        dr["BookName"] = txtbookname.Text;
        dr["BorDate"] = dtpbordate.Text;
        dr["RetedDate"] = dtpreteddate.Text;
        dr["RefCode"] = txtrefcode.Text;
        dt.Rows.Add(dr);
        allTableAdapter.Update(_library_system_DataSet3.all);
        MessageBox.Show("Book Issued ", "Issue",
            MessageBoxButtons.OK, MessageBoxIcon.Information);
        this.clear();
    }

```

```

    }

    private void button7_Click(object sender, EventArgs e)
    {
        try
        {
            this.allTableAdapter.Fill(this._library_system_DataSet3.all);
            dt = _library_system_DataSet3.all;
            refcode = txtsearchrefcode.Text;
            dr = dt.Rows.Find(refcode);
            txtmemberid.Text = dr["Memberid"].ToString();
            txtmembername.Text = dr["MemberName"].ToString();
            txtbookid.Text = dr["Bookid"].ToString();
            txtbookname.Text = dr["BookName"].ToString();
            dtpbordate.Text = dr["BorDate"].ToString();
            dtpreteddate.Text = dr["RetedDate"].ToString();
        }
        catch
        {

            MessageBox.Show("Invalid RefCode", "ERROR",
            MessageBoxButtons.OK, MessageBoxIcon.Error);

        }
    }

    private void button5_Click(object sender, EventArgs e)
    {
        bor = DateTime.Parse(dtpbordate.Text);
        reted = DateTime.Parse(dtpreteddate.Text);

        dif = reted - bor;
        txttotaldays.Text = dif.TotalDays.ToString();

        totaldays = float.Parse(txttotaldays.Text);
        if (totaldays > 14)
        {
            latedays = totaldays - 14;
            txtlatedays.Text = latedays.ToString();
        }
        else
        {
            txtlatedays.Text = "0";
        }

        fineperday = float.Parse(cmbfine.Text);
        totalfine = latedays * fineperday;
        txttotalfine.Text = totalfine.ToString();
    }

    private void button6_Click(object sender, EventArgs e)
    {
        this.allTableAdapter.Fill(this._library_system_DataSet3.all);
        dt = _library_system_DataSet3.all;
    }

```

```

        refcode = txtsearchrefcode.Text;
        dr = dt.Rows.Find(refcode);
        dr.BeginEdit();

        dr["MemberId"] = txtmemberid;
        dr["MemberName"] = txtmembername.Text;
        dr["BookId"] = txtbookid.Text;
        dr["BookName"] = txtbookname.Text;
        dr["BorDate"] = dtpbordate.Text;
        dr["RetedDate"] = dtpretedddate.Text;
        dr["RefCode"] = txtrefcode.Text;
        dr["TotalDays"] = txttotaldays.Text;
        dr["LateDays"] = txtlatedays.Text;
        dr["FinePerDay"] = cmbfine.Text;
        dr["TotalFine"] = txttotalfine.Text;

        dr.EndEdit();
        allTableAdapter.Update(_library_system_DataSet3);
        MessageBox.Show("book returned", "RETURN",
        MessageBoxButtons.OK, MessageBoxIcon.Information);
        this.clear();
    }
}
}

```

Ref. Code

book borrowing form

MEMBER ID

Member ID: 4488

Name: A.D. Jayarathna

Select a Member

BOOK DETAILS

Book ID: 1414

Name: Five On A Treasure Island

Select a Book

BOOK BORROWING DETAILS

Book Borrowing Date: Friday, 7 June

Book Returning Date: Friday, 7 June

Ref Code: 4488141407062019

Issue a Book

BOOK RETURNING DETAILS

Search Ref Code:

Search Ref

Book Returning Date: Friday, 7 June

Fine Details

Return a Book


FINE DETAILS

Total Days:

Late Days:

Fine Per Day:

Total Fine:



Coding of Ref. Code

```
private void button3_Click(object sender, EventArgs e)
{
    string get = DateTime.Now.ToString("ddMMyyyy");
    txtrefcode.Text = txtmemberid.Text + txtbookid.Text +
get;
}
```

ISSUE Button

The screenshot shows a 'book borrowing form' application window. It contains several sections: 'MEMBER ID' with fields for Member ID (4488) and Name (A.D. Jayarathna); 'BOOK DETAILS' with fields for Book ID (1414) and Name (Five On A Treasure Island); 'BOOK BORROWING DETAILS' with fields for Book Borrowing Date, Book Returning Date, and Ref Code (4488141407062019); 'BOOK RETURNING DETAILS' with a Search Ref Code field and a Book Returning Date field; and 'FINE DETAILS' with fields for Total Days, Late Days, Fine Per Day, and Total Fine. An 'Issue a Book' button is visible in the 'BOOK BORROWING DETAILS' section. A pop-up message titled 'Issue' with an information icon and the text 'Book Issued' is displayed over the form, with an 'OK' button at the bottom. The background of the form features a library interior with bookshelves.

After you click the issue button, you can see a pop up message “Book Issued”. And that means the book is issued from the library.

Coding of ISSUE Button

```
private void button4_Click(object sender, EventArgs e)
{
    this.allTableAdapter.Fill(this._library_system_DataSet3.all);
    dt = _library_system_DataSet3.all;
    dr = dt.NewRow();
    dr["MemberId"] = txtmemberid.Text;
    dr["MemberName"] = txtmembername.Text;
    dr["BookId"] = txtbookid.Text;
    dr["BookName"] = txtbookname.Text;
    dr["BorDate"] = dtpbordate.Text;
    dr["RetDate"] = dtpreteddate.Text;
}
```

```

dr["RefCode"] = txtrefcode.Text;
dt.Rows.Add(dr);
allTableAdapter.Update(_library_system_DataSet3.all);
MessageBox.Show("Book Issued ", "Issue",
MessageBoxButtons.OK, MessageBoxIcon.Information);
this.clear();
}

```

SEARCH Button

Coding of SEARCH Button

```

private void button7_Click(object sender, EventArgs e)
{
    try
    {
        this.allTableAdapter.Fill(this._library_system_DataSet3.all);
        dt = _library_system_DataSet3.all;
        refcode = txtsearchrefcode.Text;
        dr = dt.Rows.Find(refcode);
        txtmemberid.Text = dr["Memberid"].ToString();
        txtmembername.Text = dr["MemberName"].ToString();
        txtbookid.Text = dr["Bookid"].ToString();
        txtbookname.Text = dr["BookName"].ToString();
        dtpbordate.Text = dr["BorDate"].ToString();
        dtpreteddate.Text = dr["RetedDate"].ToString();
    }
}

```

```

    }
    catch
    {

        MessageBox.Show("Invalid RefCode", "ERROR",
        MessageBoxButtons.OK, MessageBoxIcon.Error);

    }
}

```

Fine Detail Button

When you return a book, by this form the librarian can get all the fine details. Just select an amount of fine per day and click the fine details button.

Coding of Fine Detail Button

```

private void button5_Click(object sender, EventArgs e)
{
    bor = DateTime.Parse(dtpbordate.Text);
    reted = DateTime.Parse(dtpreteddate.Text);

    dif = reted - bor;
    txttotaldays.Text = dif.TotalDays.ToString();
}

```



```

totaldays = float.Parse(txttotaldays.Text);
if (totaldays > 14)
{
    latedays = totaldays - 14;
    txtlatedays.Text = latedays.ToString();
}
else
{
    txtlatedays.Text = "0";
}

fineperday = float.Parse(cmbfine.Text);
totalfine = latedays * fineperday;
txttotalfine.Text = totalfine.ToString();
}

```

Returned Book Button

Click this button and return the book.

Coding of Returned Book Button

```

private void button6_Click(object sender, EventArgs e)
{
    this.allTableAdapter.Fill(this._library_system_DataSet3.all);
    dt = _library_system_DataSet3.all;
}

```

```

refcode = txtsearchrefcode.Text;
dr = dt.Rows.Find(refcode);
dr.BeginEdit();

dr["MemberId"] = txtmemberid;
dr["MemberName"] = txtmembername.Text;
dr["BookId"] = txtbookid.Text;
dr["BookName"] = txtbookname.Text;
dr["BorDate"] = dtpbordate.Text;
dr["RetedDate"] = dtpreteddate.Text;
dr["RefCode"] = txtrefcode.Text;
dr["TotalDays"] = txttotaldays.Text;
dr["LateDays"] = txtlatedays.Text;
dr["FinePerDay"] = cmbfine.Text;
dr["TotalFine"] = txttotalfine.Text;

dr.EndEdit();
allTableAdapter.Update(_library_system_DataSet3);
MessageBox.Show("book returned", "RETURN",
MessageBoxButtons.OK, MessageBoxIcon.Information);
this.clear();

```

DATA BASE

Member Data

MemberID	MemberName	Address	Tel	NIC	DOB	Type	Gender	Membershi	Exdate	Click to Add
124478679	vefergrev	nyfsgafgsagf	fsdufhdsl	435354345	Sunday, 16 Jun	staff	female	Sunday, 16 Jun	Friday, 21 June	
3333	dssdghusfghs	gdfffg	vefergrev	543854384	Sunday, 16 Jun	out of zone	female	Saturday, 22 Ju	Sunday, 16 Jun	
3636	bfehfejsif	degrgdzrg	bfehfejsif	651351316	Saturday, 1 Jun	student	female	Saturday, 1 Jun	Saturday, 1 Jun	
3942	ben 10	bhvfhbvvtbh	ben 10	3956328965v	Sunday, 16 Jun	staff	male	Sunday, 9 June	Thursday, 20 Ju	
4488	A.D Jayarathna	no.7, Colombo A.D Jayarathna	3625149875x	Saturday, 22 Ju	standard	male	Friday, 21 June	Sunday, 30 Jun		
6633	dojogfjlo	ofdogflogfom	dojogfjlo	3625984	Sunday, 23 Jun	other	female	Saturday, 22 Ju	Wednesday, 1	
6666	eeee	vhdffgc	eeee	3254765879	Saturday, 1 Jun	staff	female	Saturday, 1 Jun	Saturday, 1 Jun	
8888	fdshbudshfghs	ldagf;dsg;dhg;	fdshbudshfghd	365214526	Friday, 28 June	staff	female	Saturday, 22 Ju	Sunday, 30 Jun	
9999	dfgb;sfjg;fOXIVOUd	oimjgoianglae	dfgb;sfjg;fOX	66962445515	Thursday, 13 Ju	other	female	Wednesday, 1	Sunday, 30 Jun	

Book Data

Bookid	BookName	ISBN	Author	Category	Language	Status	DDate	rgererqeegeg
1212	jane eyre	125-678-589-098-8	charles dickens	Novel	English	purchase	Saturday, 1 June 2019	very bad
121254756	dgfhfgjgh	234536547856	35436579	Novel	English	donate	Wednesday, 8 May 2019	fdshfghjngkgh
123456789	ta-nehisi coates	978-0-8129-9354-7	toni morrison	History	French	donate	Thursday, 10 July 2014	#1 NEW YORK TIME
1313	great expectation	3546758769	charles dickens	Novel	French	purchase	Saturday, 1 June 2019	hfgfjh
1414	Five On ATreasure Island	32161616	Enid Blyton	Novel	English	purchase	Sunday, 16 June 2019	published on 1942.
2222	rgghuigrergerg	324324324324	gfefgergergerger	Science	Tamil	purchase	Monday, 10 June 2019	reergergerg
3366	snongongjrmghmjozdrh	5929529259	dfbhjrmjngstniho	History	Hindi	donate	Monday, 17 June 2019	otrmymotmuoy
4444	evurrewrer	12983021938	erwerer	History	French	purchase	Sunday, 9 June 2019	fdfewfweufewf
87654321	fisa;gfoodfo	21651615	douhgsidugpiug	Science	English	purchase	Sunday, 16 June 2019	oghauireghpaeri
987456321	uighfghg;oufug	231654651321651	ehfhehoiuehoewhf	Novel	French	purchase	Saturday, 22 June 2019	rpewuthpreighpri

SECURITY WARNING Some active content has been disabled. Click for more details. Enable Content

MemberId	MemberName	BookId	BookName	BorDate	RefCode	RetedDate	TotalDays	LateDays	FinePerDay
System.Windows	fdfesfjif	123456789	ta-nehisi coates	Saturday, 1 June 2019				1	20
System.Windows	oufofuf7	1212	jane eyre	Saturday, 1 June 2019	1111122101062019	Sunday, 15 Jun 15			
1111	fdfuhsdf	2222	rgghuigrreger	Friday, 7 June 2019	1111222207062019	Friday, 7 June			
System.Windows	aaaaa	123456789	ta-nehisi coates	Saturday, 1 June 2019	222212345678901062019	Saturday, 1 Jun			
System.Windows	aaaaa	1313	great expectation	Saturday, 1 June 2019	2222131301062019	Friday, 1 June			
3333	dssdghsfghs	4444	ewrrerwer	Friday, 7 June 2019	3333444407062019	Saturday, 1 Jun			
3942	ben 10	1011	fdfbfald	Friday, 7 June 2019	39420101107062019	Friday, 7 June			
System.Windows	ccccc	123154756	dghfghgh	Saturday, 1 June 2019	444412325475601062019	Saturday, 1 Jun			
4488	A.D Jayarathna	1411	Five On A Treasure Island	Friday, 7 June 2019	4488141407062019	Friday, 7 June			
5555	fgdhgof	123456789	ta-nehisi coates	Saturday, 1 June 2019	555512345678901062019	Saturday, 1 Jun			
5555	fgdhgof	1313	great expectation	Friday, 7 June 2019	5555131307062019	Friday, 7 June			
6633	dsgjgoflo	3366	snogongingmrgmjozdhr	Friday, 7 June 2019	6633336607062019	Saturday, 1 Jun			
8888	fdshbushdfghs	87654321	fisagfodfo	Saturday, 1 June 2019	8888765432101062019	Friday, 7 June			

Record: H - 1 of 13 | H K | No Filter | Search

Capts Lock Num Lock