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Class - Sy.Bsc.Computer Science.

SUB - .Net Technology

Project Name – Library Management System

INDEX

Topic Introduction :

A Library Management System is a software built to handle the primary housekeeping functions of a library. Librariesrely on library management systems to manage asset collections as well as relationships with their members. Library management systems help libraries keep track of the books and their checkouts, as well as members' subscriptions and profiles.

Library management systems also involve maintaining the database for entering new books and recording books that have been borrowed with their respective Publisher.

Introduction to ASP.Net

- ASP.NET is a web development platform, which provides a programming model, a comprehensive software infrastructure and various services required to build up robust web applications for PC, as well as mobile devices.

- ASP.NET is a part of Microsoft .Net platform. ASP.NET applications are compiled codes, written using the extensible and reusable components or objects present in .Net framework. These codes can use the entire hierarchy of classes in .Net framework.

- The ASP.NET application codes can be written in any of the following languages:
  - ☐ C#
  - ☐ Visual Basic.Net
  - ☐ Jscript
  - ☐ J#

ASP.NET is used to produce interactive, data-driven web applications over the internet. It consists of a large number of controls such as text boxes, buttons, and labels for assembling, configuring, and manipulating code to create HTML pages.

Why do we use C#?

Programming in C#: Since the C# is a lot similar to other widely used languages syntactically, it is easier to code and learn in C#. Programs can be written in C# in any of the widely used text editors like Notepad++, gedit, etc. or on any of the compilers. After writing the program save the file with the extension .cs

Feature

Easy to start : C# is a high-level language so it is closer to other popular programming languages like C, C++, and Java

Widely used for developing Desktop and Web Application : It is one of the most popular languages that is used in professional desktop. If anyone wants to create Microsoft apps, C# is their first choice.
Community : C# has a large community so the developments are done to make it exist in the system and not become extinct.
Game Development : C# integrates with Microsoft and thus has a large target audience. The C# features such as Automatic Garbage Collection, interfaces, object-oriented, etc. make C# a popular game developing language

What is ASPX used for?

Default.aspx - The default webpage loaded when a client browser requests a Web server directory on a Microsoft IIS-based server that uses ASP.NET. For example, when a client requests http://www.sampledomain.com/, the server loads http://www.sampledomain.com/Default.aspx, unless it is configured to load a different file.

Using Default.aspx in our project we Designing our web page

What is Default. aspx. cs used for?

The **Default**. **aspx**. **cs** page allow programmer to write c# programming code to develop website application.

What is the purpose of master page?

- Master pages allow you to create a consistent look and behavior for all the pages (or group of pages) in your web application.
- A master page provides a template for other pages, with shared layout and functionality. The master page defines placeholders for the content, which can be overridden by content pages. The output result is a combination of the master page and the content page.
- The content pages contain the content you want to display.
- When users request the content page, ASP.NET merges the pages to produce output that combines the layout of the master page with the content of the content page.
- The master page above is a normal HTML page designed as a template for other pages.
- The @ **Master** directive defines it as a master page.
- The master page contains a placeholder tag **<asp:ContentPlaceHolder>** for individual content.
- The **id="CPH1"** attribute identifies the placeholder, allowing many placeholders in the same master page.
- This master page was saved with the name **"master1.master**

CODE :

MasterPage.master:

```
<%@ Master Language="C#" AutoEventWireup="true"
CodeFile="MasterPage.master.cs" Inherits="MasterPage" %>

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-
transitional.dtd">


<html xmlns="http://www.w3.org/1999/xhtml">
<head id="Head1" runat="server">
<title></title>
<asp:ContentPlaceHolder id="head" runat="server">

</asp:ContentPlaceHolder>
<style type="text/css">

#menu_hr
{
background:#141414;
width:100%;
margin-top:-15px;
}

#menu_hr ul
{
width:auto;
padding:10px 0px 8px 10px;
margin-left:-8px;
}

#menu_hr ul li
{
list-style-type:none;
display:inline;
padding-right:2px;
}
```

```css
#menu_hr ul li a
{
background:#6699cc;
padding:7px 15px 7px 15px;
text-decoration:none;
color:#ffffff;
}

#menu_hr ul li a:hover
{
background:#ea6153;
padding:7px 15px 7px 15px;
text-decoration:none;
color:#ffffff;
}

</style>

</head>
<body>
<form id="form1" runat="server">
<div>
<div id="div_img">
<img src="C:\Users\Dell\Documents\Visual Studio
2010\Projects\LibraryProject2\library1.jpg" height="200px"
width="100%" />
<div id="menu_hr">

<ul>
<li > <a href="Default.aspx">Home</a></li>
<li > <a href="BookAssign.aspx">Books</a></li>
<li > <a href="Pending.aspx">Pending</a></li>
<li > <a href="#">Details</a></li>


</ul>

</div>
<h1 style="color:Red; text-align:right;"><asp:Label
ID="Label1" align="right"
```

```
runat="server"></asp:Label></h1>

</div>

<asp:ContentPlaceHolder id="ContentPlaceHolder1"
runat="server">

</asp:ContentPlaceHolder>
</div>
</form>
</body>
</html>
```
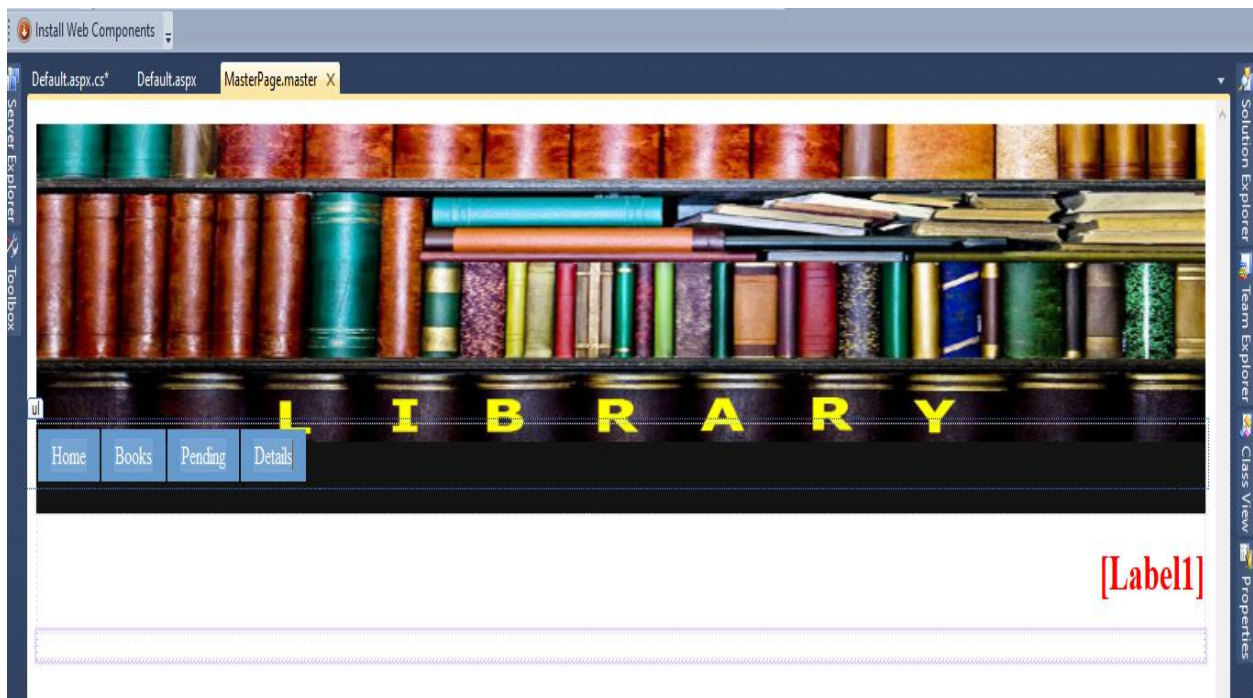
OUTPUT:

Default.aspx page

```
<%@ Page Title="" Language="C#"
MasterPageFile="~/MasterPage.master" AutoEventWireup="true"
CodeFile="Default.aspx.cs" Inherits="_Default" %>

<asp:Content ID="Content1" ContentPlaceHolderID="head"
Runat="Server">

<style type="text/css">

.tb_book
{
border-collapse:collapse;
}

.tb_book_AED, .tb_book_th
{
border:1px solid #6699cc;
}

.tdbi_1
{
width:200px;
padding:3px 25px 3px 3px;
background:#fafafa;
text-align:right;
border-top:1px solid #dddddd;
border-right:1px solid #dddddd;
border-bottom:1px solid #dddddd;
}

.tdbi_2
{
width:350px;
padding:3px;
background:#fafafa;
border-top:1px solid #dddddd;
border-bottom:1px solid #dddddd;
}
.txtbox
```

```
{
width:300px;
padding:3px;
}

.btn
{
background:#6699cc;
border:1px solid #6699cc;
padding:5px 10px 5px 10px;
color:#ffffff;
}
.btn:hover
{
background:#ea6153;
border:1px solid #ea6153;
padding:5px 10px 5px 10px;
color:#ffffff;
}

</style>
<script src="Javascript/jquery-1.11.2.js"
type="text/javascript"></script>
<script src="Javascript/bookvalidation.js"
type="text/javascript"></script>

</asp:Content>
<asp:Content ID="Content2"
ContentPlaceHolderID="ContentPlaceHolder1" Runat="Server">

<div style="background:#ffffff; margin-top:-15px;
height:500px; padding:10px 25px 50px 25px;">
<div style="background:#dddddd; padding:5px 10px 5px 10px;
width:105%; margin-left:-30px;" align="center">
<asp:RadioButtonList ID="rbl_book_AEUD" runat="server"
RepeatDirection="Horizontal" Font-Bold="true"
ForeColor="Blue" >
<asp:ListItem Text="ADD" Value="1"
Selected="True"></asp:ListItem>
<asp:ListItem Text="EDIT" Value="2"></asp:ListItem>
<asp:ListItem Text="DELETE" Value="3"></asp:ListItem>
```

```
</asp:RadioButtonList>
  
</div>
<div style="padding:10px;" align="center">
<table class="tb_book">
<tr>
<td id="table_Add" class="tb_book_AED"
style="display:block;" runat="server">
<table>
<caption><h1>Add Book Inventory</h1></caption>
<tr>
<td class="tdbi_1">Book ID :</td>
<td class="tdbi_2"><asp:TextBox ID="txt_bookid"
CssClass="txtbox" runat="server"></asp:TextBox></td>
</tr>
<tr>
<td class="tdbi_1">Book Name :</td>
<td class="tdbi_2"><asp:TextBox ID="txt_bookname"
CssClass="txtbox" runat="server"></asp:TextBox></td>
</tr>
<tr>
<td class="tdbi_1">Book Publisher Name :</td>
<td class="tdbi_2"><asp:TextBox ID="txt_bookpubname"
CssClass="txtbox" runat="server"></asp:TextBox></td>
</tr>
<tr>
<td class="tdbi_1">Book Publishered Year :</td>
<td class="tdbi_2"><asp:TextBox ID="txt_bookpubyear"
CssClass="txtbox" runat="server"></asp:TextBox></td>
</tr>
<tr>
<td class="tdbi_1">Book Price :</td>
<td class="tdbi_2"><asp:TextBox ID="txt_bookprice"
CssClass="txtbox" runat="server"></asp:TextBox></td>
</tr>
<tr>
<td class="tdbi_1">Book Quantity :</td>
<td class="tdbi_2"><asp:TextBox ID="txt_bookqty"
CssClass="txtbox" runat="server"></asp:TextBox></td>
</tr>
</table>
```

```
</td>
<td id="table_Edit" class="tb_book_AED"
style="display:none;"  runat="server">
<table>
<caption><h1>Edit Book Inventory</h1></caption>
<tr>
<td class="tdbi_1">Book ID :</td>
<td class="tdbi_2"><asp:TextBox ID="txt_edit_bookid"
CssClass="txtbox" Width="235px"
runat="server"></asp:TextBox>
<asp:Button ID="btn_check" runat="server" CssClass="btn"
Text="Check"
onclick="btn_check_Click" />
</td>
</tr>
<tr>
<td class="tdbi_1">Book Name :</td>
<td class="tdbi_2"><asp:TextBox ID="txt_edit_bookname"
CssClass="txtbox" ReadOnly="true" BackColor="#dddddd"
runat="server"></asp:TextBox></td>
</tr>
<tr>
<td class="tdbi_1">Book Publisher Name :</td>
<td class="tdbi_2"><asp:TextBox ID="txt_edit_bookpubname"
CssClass="txtbox" ReadOnly="true" BackColor="#dddddd"
runat="server"></asp:TextBox></td>
</tr>
<tr>
<td class="tdbi_1">Book Publisher Year :</td>
<td class="tdbi_2"><asp:TextBox ID="txt_edit_bookpubdate"
CssClass="txtbox" ReadOnly="true" BackColor="#dddddd"
runat="server"></asp:TextBox></td>
</tr>
<tr>
<td class="tdbi_1">Book Price :</td>
<td class="tdbi_2"><asp:TextBox ID="txt_edit_bookprice"
CssClass="txtbox" ReadOnly="true" BackColor="#dddddd"
runat="server"></asp:TextBox></td>
</tr>
<tr>
<td class="tdbi_1">Book Quantity :</td>
```

```
<td class="tdbi_2"><asp:TextBox ID="txt_edit_bookqty"
CssClass="txtbox" ReadOnly="true" BackColor="#dddddd"
runat="server"></asp:TextBox></td>
</tr>
</table>
</td>
<td id="table_Delete" class="tb_book_AED"
style="display:none;"  runat="server">
<table>
<caption><h1>Delete Book Inventory</h1></caption>
<tr>
<td class="tdbi_1">Book ID :</td>
<td class="tdbi_2"><asp:TextBox ID="txt_delete_bookid"
CssClass="txtbox" runat="server"></asp:TextBox></td>
</tr>
</table>
</td>
</tr>
</table>
</div>
<asp:Label ID="lblresult" runat="server"></asp:Label>
<br />
<asp:Label ID="lbl_book_result" runat="server"></asp:Label>
<!-- Add Book ADD EDIT DELETE -->
<div id="div_add" align="center" style="padding-top:25px;
display:block;" runat="server">
<asp:Button ID="btn_Add" runat="server" CssClass="btn"
Text="ADD"
onclick="btn_Add_Click" />
<asp:Button ID="btn_Add_Reset" runat="server" CssClass="btn"
Text="RESET"
onclick="btn_Add_Reset_Click" />
<asp:Button ID="btn_Add_Cancel" runat="server"
CssClass="btn" Text="CANCEL"
onclick="btn_Add_Cancel_Click" />
</div>
<!-- Edit Book ADD EDIT DELETE -->
<div id="div_edit" align="center" style="padding-top:25px;
display:none;" runat="server">
<asp:Button ID="btn_Update" runat="server" CssClass="btn"
Text="UPDATE"
```

```
onclick="btn_Update_Click" />
<asp:Button ID="btn_Update_Reset" runat="server"
CssClass="btn" Text="RESET"
onclick="btn_Update_Reset_Click" />
<asp:Button ID="btn_Update_Cancel" runat="server"
CssClass="btn" Text="CANCEL"
onclick="btn_Update_Cancel_Click" />
</div>
<!-- Delete Book ADD EDIT DELETE -->
<div id="div_delete" align="center" style="padding-top:25px;
display:none;" runat="server">
<asp:Button ID="btn_Delete" runat="server" CssClass="btn"
Text="DELETE"
onclick="btn_Delete_Click" />
<asp:Button ID="btn_Delete_Reset" runat="server"
CssClass="btn" Text="RESET"
onclick="btn_Delete_Reset_Click" />
<asp:Button ID="btn_Delete_Cancel" runat="server"
CssClass="btn" Text="CANCEL"
onclick="btn_Delete_Cancel_Click" />
</div>
</div>
</asp:Content>
```

OUTPUT

Default.aspx.cs page

```csharp
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;
using System.Data.SqlClient;
using System.Data;
using System.Configuration;

public partial class _Default : System.Web.UI.Page
{
SqlConnection con = new SqlConnection("Data Source=DESKTOP-
HM3E1VF;Initial Catalog=Library1;Integrated Security=True");
SqlCommand cmd;
SqlDataAdapter da;
DataSet ds;
string qr;

protected void Page_Load(object sender, EventArgs e)
{}
protected void btn_Add_Click(object sender, EventArgs e)
{
try
{

qr = "Insert into BookRecord(bookid, bookname, bookpubname,
bookpubyear, bookprice, bookquantity, recorddate) values('"
+ txt_bookid.Text.Trim() + "','" + txt_bookname.Text.Trim()
+ "','" + txt_bookpubname.Text.Trim() + "','" +
txt_bookpubyear.Text.Trim() + "','" +
txt_bookprice.Text.Trim() + "','" + txt_bookqty.Text.Trim()
+ "','" + DateTime.Today.Date.ToShortDateString() + "')";
cmd = new SqlCommand(qr, con);
con.Open();   //sqlconnection open before save or delete
update or serach
int i = cmd.ExecuteNonQuery();
```

```csharp
if (i > 0)
{
lblresult.ForeColor = System.Drawing.Color.Green;
lblresult.Text = "record Inserted Successfully.....";
clear();


}
else
{
lblresult.Text = "record NOT Inserted .....";
lblresult.ForeColor = System.Drawing.Color.Red;
}
con.Close();
}

catch
{
con.Close();
Response.Write("alert('Exception occur')");
}
}
protected void btn_Add_Reset_Click(object sender, EventArgs e)
{
clear();
}

private void clear()
{
txt_bookid.Text = "";
txt_bookname.Text = "";
txt_bookpubname.Text = "";
txt_bookpubyear.Text = "";
txt_bookprice.Text = "";
txt_bookqty.Text = "";
}

private void ResetEditTextbox()
{
txt_edit_bookid.Text = "";
txt_edit_bookid.Style.Add("width", "235px");
```

```csharp
txt_edit_bookid.Style.Add("background", "#ffffff");
txt_edit_bookid.ReadOnly = false;

btn_check.Visible = true;
txt_edit_bookname.Text = "";
txt_edit_bookpubname.Text = "";
txt_edit_bookpubdate.Text = "";
txt_edit_bookprice.Text = "";
txt_edit_bookqty.Text = "";
}
private void ResetDeleteTextbox()
{
txt_delete_bookid.Text = "";
}

private void DisableReadOnly_EditTextBoxColor()
{
txt_edit_bookname.ReadOnly = true;
txt_edit_bookname.Style.Add("background", "#dddddd");
txt_edit_bookpubname.ReadOnly = true;
txt_edit_bookpubname.Style.Add("background", "#dddddd");
txt_edit_bookpubdate.ReadOnly = true;
txt_edit_bookpubdate.Style.Add("background", "#dddddd");
txt_edit_bookprice.ReadOnly = true;
txt_edit_bookprice.Style.Add("background", "#dddddd");
txt_edit_bookqty.ReadOnly = true;
txt_edit_bookqty.Style.Add("background", "#dddddd");
}
protected void btn_check_Click(object sender, EventArgs e)
{
try
{
qr = "Select * from BookRecord Where bookid='" +
txt_edit_bookid.Text.Trim() + "'";
da = new SqlDataAdapter(qr, con);
ds = new DataSet();
da.Fill(ds);
if (ds.Tables[0].Rows.Count > 0)
{
txt_edit_bookid.Text =
ds.Tables[0].Rows[0]["bookid"].ToString();
```

```csharp
                txt_edit_bookid.Text =
ds.Tables[0].Rows[0]["bookid"].ToString();
                txt_edit_bookname.Text =
ds.Tables[0].Rows[0]["bookname"].ToString();
                txt_edit_bookpubname.Text =
ds.Tables[0].Rows[0]["bookpubname"].ToString();
                txt_edit_bookpubdate.Text =
ds.Tables[0].Rows[0]["bookpubyear"].ToString();
                txt_edit_bookprice.Text =
ds.Tables[0].Rows[0]["bookprice"].ToString();
                txt_edit_bookqty.Text =
ds.Tables[0].Rows[0]["bookquantity"].ToString();
                btn_check.Visible = false;

                EnableReadOnly_TextBoxColor();


                div_add.Style.Add("display", "none");
                table_Add.Style.Add("display", "none");
                div_edit.Style.Add("display", "block");
                table_Edit.Style.Add("display", "block");
                div_delete.Style.Add("display", "none");
                table_Delete.Style.Add("display", "none");

                txt_edit_bookid.Style.Add("width", "300px");
                txt_edit_bookid.Style.Add("background", "#dddddd");
                txt_edit_bookid.ReadOnly = true;
            }
        }
        catch
        {
            con.Close();
        }
    }
    private void EnableReadOnly_TextBoxColor()
    {
        txt_edit_bookid.ReadOnly = false;
        txt_edit_bookid.Style.Add("background", "#ffffff");
        txt_edit_bookname.ReadOnly = false;
        txt_edit_bookname.Style.Add("background", "#ffffff");
        txt_edit_bookpubname.ReadOnly = false;
```
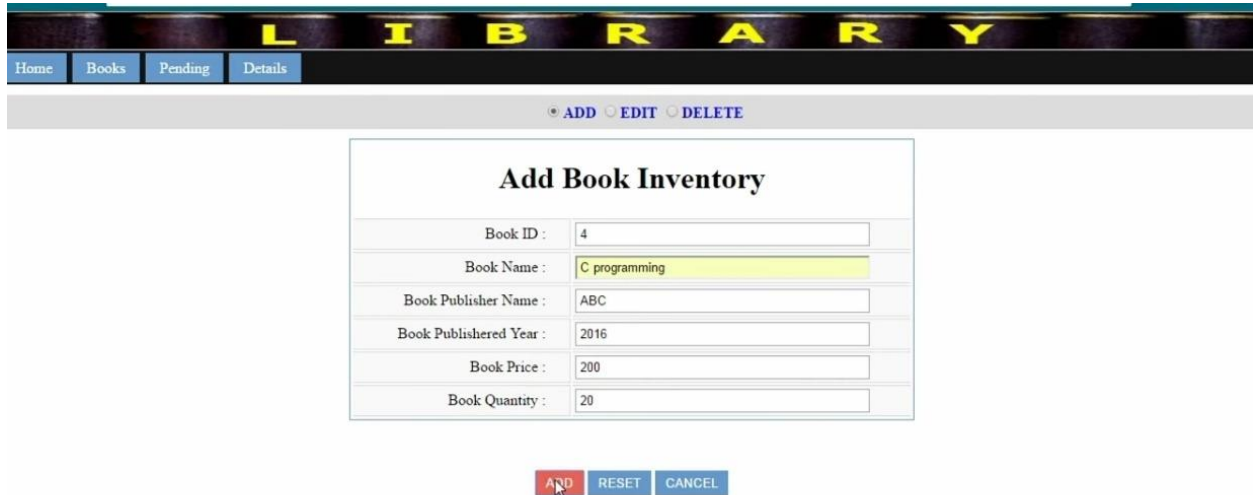
```csharp
            txt_edit_bookpubname.Style.Add("background", "#ffffff");
            txt_edit_bookpubdate.ReadOnly = false;
            txt_edit_bookpubdate.Style.Add("background", "#ffffff");
            txt_edit_bookprice.ReadOnly = false;
            txt_edit_bookprice.Style.Add("background", "#ffffff");
            txt_edit_bookqty.ReadOnly = false;
            txt_edit_bookqty.Style.Add("background", "#ffffff");
        }
        protected void btn_Add_Cancel_Click(object sender, EventArgs
        e)
        {
        clear();
        }
        protected void btn_Update_Click(object sender, EventArgs e)
        {
        try
        {
        qr = "Update BookRecord set bookname='" +
        txt_edit_bookname.Text.Trim() + "', bookpubname='" +
        txt_edit_bookpubname.Text.Trim() + "', bookpubyear='" +
        txt_edit_bookpubdate.Text.Trim() + "', bookprice='" +
        txt_edit_bookprice.Text.Trim() + "', bookquantity='" +
        txt_edit_bookqty.Text.Trim() + "' where bookid='" +
        txt_edit_bookid.Text.Trim() + "'";
        cmd = new SqlCommand(qr, con);
        con.Open();
        cmd.ExecuteNonQuery();
        con.Close();
        lblresult.Text = "Record Updated Successfully...";
        }
        catch
        {
        con.Close();
        }
        }
        protected void btn_Delete_Click(object sender, EventArgs e)
        {
        try
        {
        qr = "Delete BookRecord where bookid='" +
        txt_delete_bookid.Text.Trim() + "'";
```

```csharp
cmd = new SqlCommand(qr, con);
con.Open();
cmd.ExecuteNonQuery();
con.Close();

div_add.Style.Add("display", "none");
table_Add.Style.Add("display", "none");
div_edit.Style.Add("display", "none");
table_Edit.Style.Add("display", "none");
div_delete.Style.Add("display", "block");
table_Delete.Style.Add("display", "block");

lblresult.Text = "Record Deleted Successfully...";
}
catch
{
con.Close();
}
}
protected void btn_Delete_Reset_Click(object sender,
EventArgs e)
{
ResetDeleteTextbox();
}
protected void btn_Delete_Cancel_Click(object sender,
EventArgs e)
{
ResetDeleteTextbox();
}
protected void btn_Update_Reset_Click(object sender,
EventArgs e)
{
ResetEditTextbox();
DisableReadOnly_EditTextBoxColor();
}
protected void btn_Update_Cancel_Click(object sender,
EventArgs e)
{
ResetEditTextbox();
DisableReadOnly_EditTextBoxColor();
}}
```

OUTPUT

1st page:
Adding imformation of book in Add Book Inventory
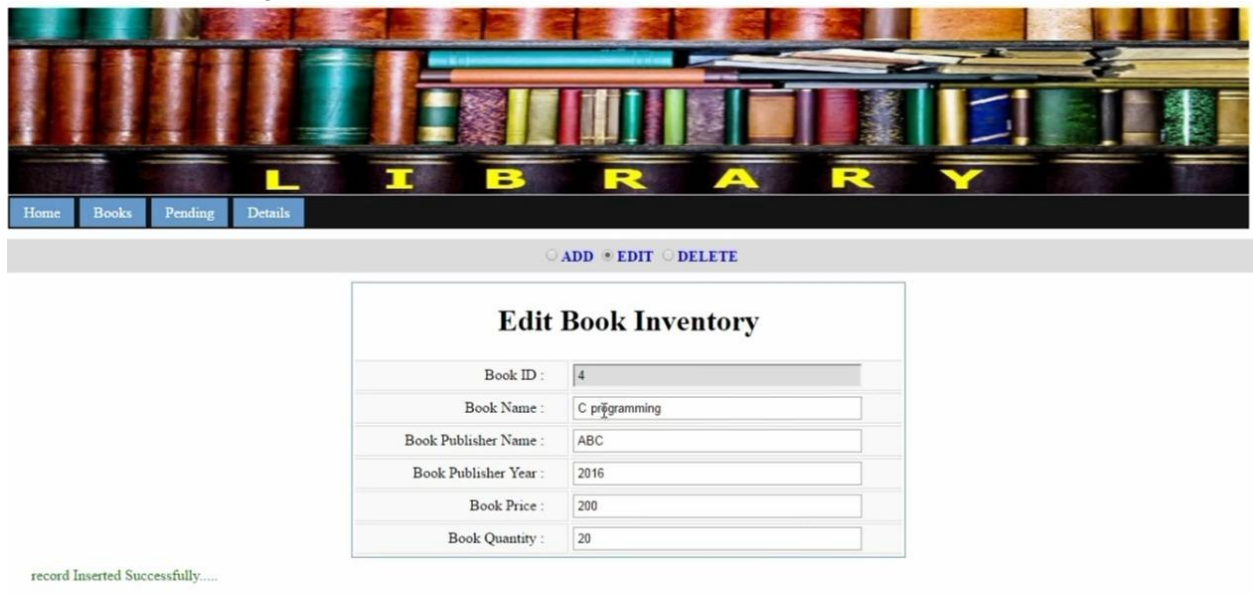
Page 2nd:
Successfully stored data of book
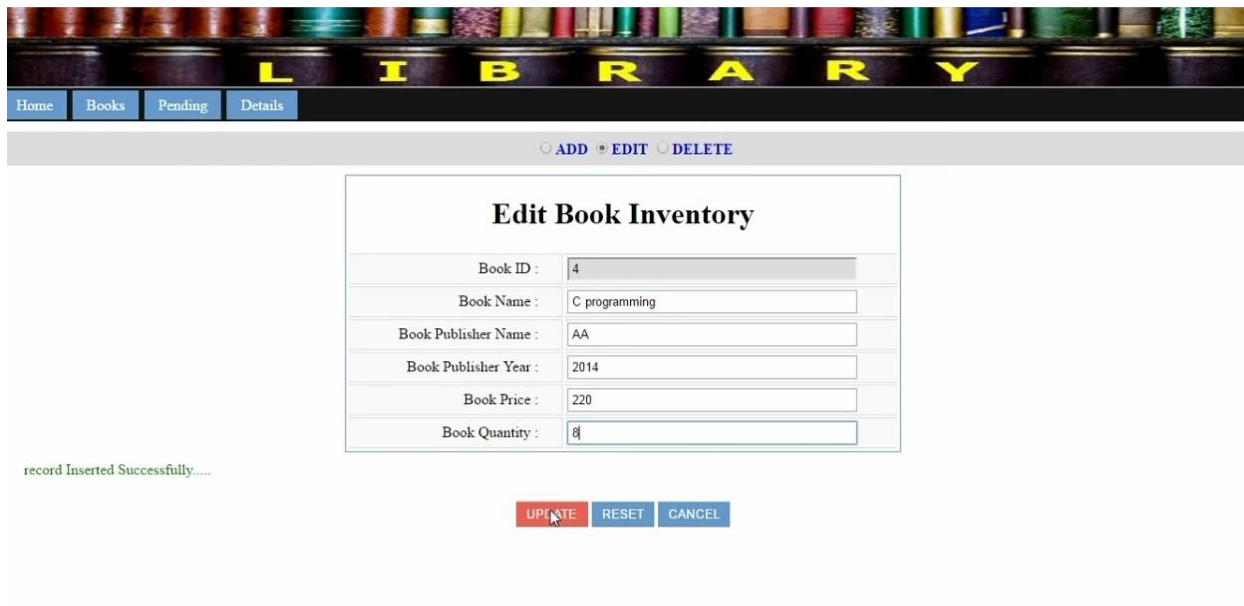
If User wants to update data, they can easily update
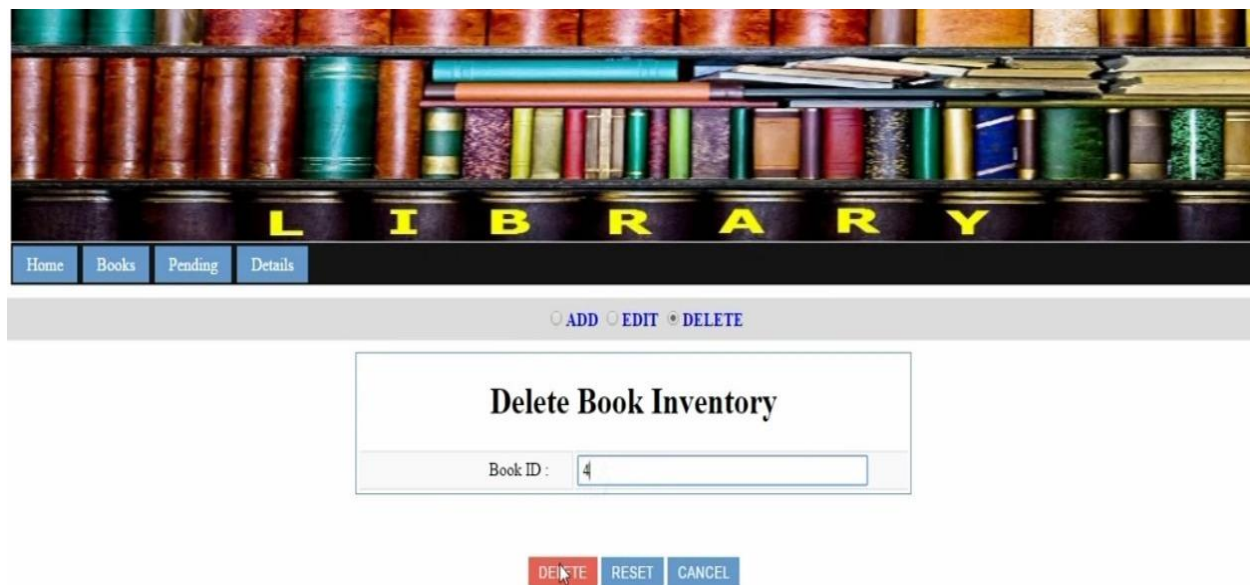
Edit Book Inventory

Book ID :	4
Book Name :	C programming
Book Publisher Name :	AA
Book Publisher Year :	2014
Book Price :	220
Book Quantity :	8

record Inserted Successfully.....

UPDATE   RESET   CANCEL

Page :3rd

If User wants to Delete data they can easily update

Delete Book Inventory

Book ID :	4

DELETE   RESET   CANCEL