

Book Loan System	Group 9
Coding Standard	25.04.2017



HACETTEPE UNIVERSITY

**Computer Engineering
BBM487 Software Engineering Laboratory**

**Library Book Loan System
Coding Standard**

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Book Loan System

Coding Standard

Camel Case

A word with the first letter lowercase, and the first letter of each subsequent word-part capitalized.

Identifier

A developer defined token used to uniquely name a declared object or object instance.

```
public partial class LoginForm: Form
{
    public LoginForm()
    {
        InitializeComponent();
    }
    /*If the librarian or member wants to log in to the library system*/
    private void btnLogin_Click(object sender, EventArgs e)
    {
        /*Is it the same as the information in the database?*/
        string userControl = "Select * from tblUser where UserName='" + tbxUserName.Text + "' And UserPassword='" + tbxPassword.Text + "' And UserStatus=1";
```

Pascal Case

A word with the first letter capitalized, and the first letter of each subsequent word-part capitalized.

```
static class UserInfo
{
    public static string UserName { get; set; } /*The private itself is the backplane*/
    public static string Name { get; set; }
    public static string SurName { get; set; }
    public static string UserTC { get; set; }
    public static string UserMail { get; set; }
    public static string UserCaption { get; set; }
    public static string UserAddress { get; set; }
}
```

Flags

The following flags are used to help clarify or categorize certain statements: [C#v2+] A flag to identify rules and statements that apply only to C# Language Specification v2.0 or greater.

Project File:

Pascal Case. Always match Assembly Name & Root Namespace.

```
namespace LibraryLoanSystem
```

Source File

Pascal Case. Always match Class name and file name.

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```
public partial class MemberOperationsForm : Form
{
    public MemberOperationsForm()
    {
        InitializeComponent();
    }
}
```

Resource or Embedded File

Try to use Pascal Case. Use a name describing the file contents.

 LibraryLoanSystem	4.04.2017 13:52	Dosya klasörü	
 LibraryLoanSystemDiagram	17.04.2017 13:13	Dosya klasörü	
 LibraryLoanSystem	22.04.2017 19:13	Microsoft Visual S...	2 KB

Namespace

Pascal Case. Try to partially match Project/Assembly Name.

Class or Structure

Pascal Case. Use a noun or noun phrase for class name. Add an appropriate class-suffix when subclassing another type when possible.

```
public partial class ReservetionSelfcheckoutSelfreturnForm : Form
{
    public ReservetionSelfcheckoutSelfreturnForm()
    {
        InitializeComponent();
    }
}
```

Interface

Pascal Case. Always prefix interface name with capital "I".
We did not use the interface in our Project.

Generic Class & Generic Parameter Type

```
private void btnCancelReservation_Click(object sender, EventArgs e)
{
    if (gridMyReservations.SelectedRows.Count == 1)
```

Method

Pascal Case. Try to use a Verb or Verb-Object pair

```
private void btnCancelReservation_Click(object sender, EventArgs e)
private void btnGoToWaitingList_Click(object sender, EventArgs e)
private void btnShowWaitList_Click(object sender, EventArgs e)
```

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Property

Pascal Case. Property name should represent the entity it returns. Never prefix property names with “Get” or “Set”.

```
public static string UserName { get; set; }/*The private itself is the backplane*/
public static string Name { get; set; }
public static string SurName { get; set; }
public static string UserTC { get; set; }
public static string UserMail { get; set; }
public static string UserCaption { get; set; }
public static string userAddress { get; set; }
```

Field (Public, Protected, or Internal)

Pascal Case. Avoid using non-private Fields! Use Properties instead.

```
public static string Name
public static string UserCaption
```

Field (Private)

Camel Case and prefix with a single underscore (_) character.

Constant or Static Field

Treat like a Field. Choose appropriate Field access-modifier above.

```
static class DBOperations
{
    public static SqlConnection createConnection()
    {
```

Enum

Pascal Case (both the Type and the Options). Add the FlagsAttribute to bit-mask multiple options. We did not use the enum in our Project.

Delegate or Event

Treat as a Field. Choose appropriate Field access-modifier above. We did not use the delegate or event in our Project.

Variable (inline)

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Camel Case. Avoid using single characters like “x” or “y” except in FOR loops. Avoid enumerating variable names like text1, text2, text3 etc.

```
double Fine = 0.0;

string Name = tbxName.Text;
string Surname = tbxSurname.Text;
string userName = tbxUserName.Text;
string userPassword = tbxUserPasswordFirst.Text;
string userTc = tbxUserTC.Text;
string userEmail = tbxUserEmail.Text;
string userAddress = rtbxUserAddress.Text;
string userCaption = cmbUserCaption.Text;
```

Parameter

Camel Case.

```
public static int insertUpdateDelete(string sqlCommand)
```

Code Commenting

```
/*Updating list of information at GridWaitingList*/
private void RefreshGridWaitingList()
{
    DataTable _dt = DBOperations.Select("Select u.Name, u.SurName, w.RequestDate Date " +
        " from tblWaitingList w, tblUser u " +
        " WHERE w.UserTc=u.UserTc " +
        " And BookCode='" + tbxWaitingBookCode.Text + "' And w.RequestState=0" +
        " ORDER BY w.RequestDate");
    gridWaitingList.DataSource = _dt;
}

/*Updating list of information at GridMyBooks*/
private void RefreshGridMyBooks()
{
    DataTable _dt = DBOperations.Select(" Select b.BookCode,b.BookName,b.BookAuthor,bb.StartDate,bb.EndDate " +
        " from tblBorrowedBooks bb, tblBook b " +
        " Where bb.BookCode=b.BookCode " +
        " And bb.UserTC='" + UserInfo.UserTC + "' " +
        " And ReturnDate is null");
    gridMyBooks.DataSource = _dt;
}
```

Flow Control

```
if (tbxSearchByName.Text.Trim() != "")
    dv.RowFilter = "Name LIKE '%" + tbxSearchByName.Text + "%'";
if (tbxSearchByAuthor.Text.Trim() != "")
    dv.RowFilter = "Author LIKE '%" + tbxSearchByAuthor.Text + "%'";
if (tbxSearchByCode.Text.Trim() != "")
    dv.RowFilter = "Code ='" + tbxSearchByCode.Text + "'";
gridBooks.DataSource = dv;
```

Exceptions

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```

public static DataTable Select(string sqlCommand)/*Pulls the record*/
{
    DataTable _dt = null;
    using (SqlConnection _conn = createConnection())
    {
        try
        {
            SqlDataAdapter adptr = new SqlDataAdapter(sqlCommand, _conn);
            _dt = new DataTable();
            _conn.Open();
            adptr.Fill(_dt);
        }
        catch(Exception e)
        {
        }
        finally
        {
            _conn.Close();
        }
    }
    return _dt;
}

```

Names of button, data grid etc. toolboxes in Visual Studio:

(Name)	btnLogin
(Name)	tbxUserName
(Name)	gridMyReservations
(Name)	lblSeachByName