C16 Visual Basic Net Programming

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Report

Contents

Introduction

The current document is built upon the Greenwich United Football Club windows application. The Greenwich United Football Club application is built in VB.Net and SQL Server database. The application is built for the administration staff to maintain the steward's data. Currently the Greenwich United Football Club application is implemented only for the stewards' records and will be used for other purposes later.

Currently, following features have been implemented in the Greenwich United Football Club application-

- Add new steward
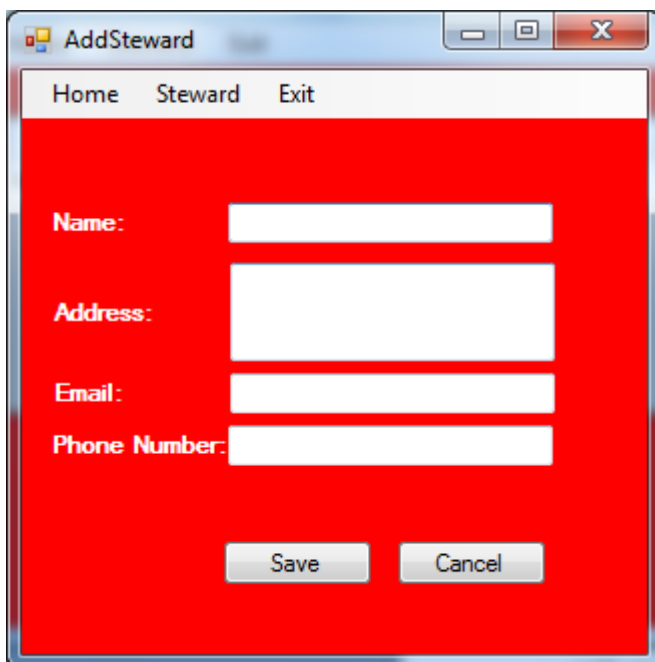- Edit existing steward
- Delete steward record

Software Development Process

Following page is showing the home page of the Greenwich United Football Club application-
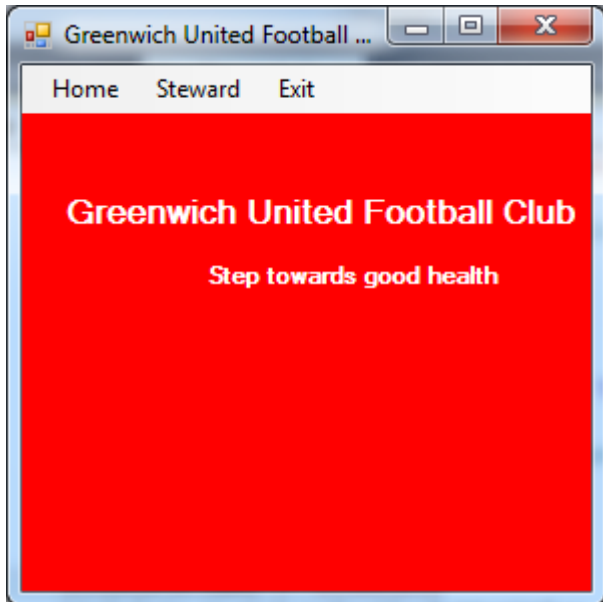
Two sub menus are attached in the Steward menu- New and Edit menu. The New sub menu will open the form to add new steward and Edit sub menu will open the View Steward page to edit or delete the steward.

The AddSteward form will look like this-

This form is used to add new steward into the database. The administrator can create new record by clicking on the Save button. The complete steward information needs to be entered into the form as all the fields are mandatory in the AddSteward form.

The class file contains the code to access the database like below-

```
Imports System
Imports System.Collections.Generic
Imports System.Linq
Imports System.Text
Imports System.Configuration
Imports System.Data
Imports System.Data.SqlClient

Public Class ClassName
Connection string


Public Sub
        Statements…
End Sub

End
```
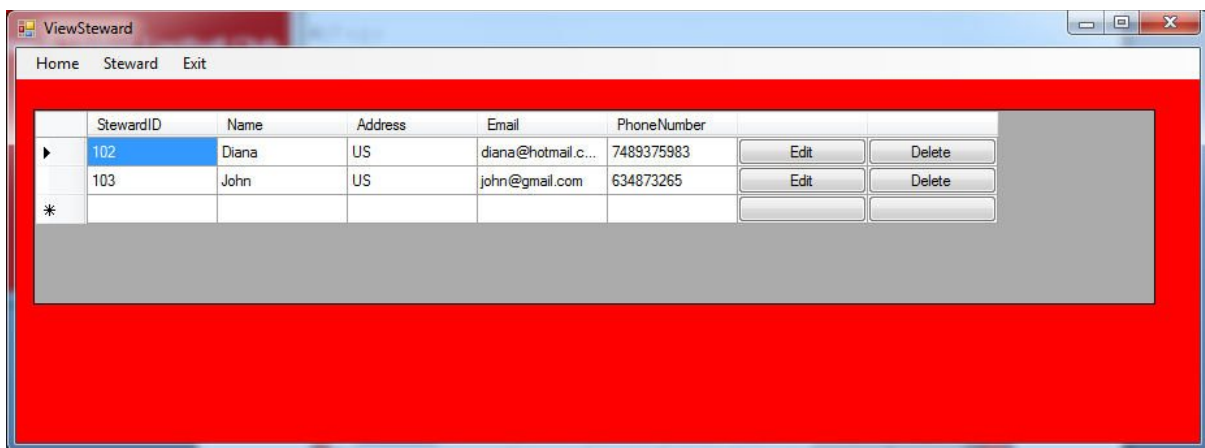
It is the middle layer that contains the connection string and accesses the database procedures.

Following ViewSteward form will be opened by clicking on the Edit sub menu-

The Gridview control is used in the ViewSteward form. The gridview control is the best control to show the complete data related to the particular area. A sub procedure will load the data into the grid. It will interact with the middle layer (class file) and will receive the data from the class file function.

The Edit button will open the EditSteward form and the administrator can edit the data like below while the Delete button will delete the record.
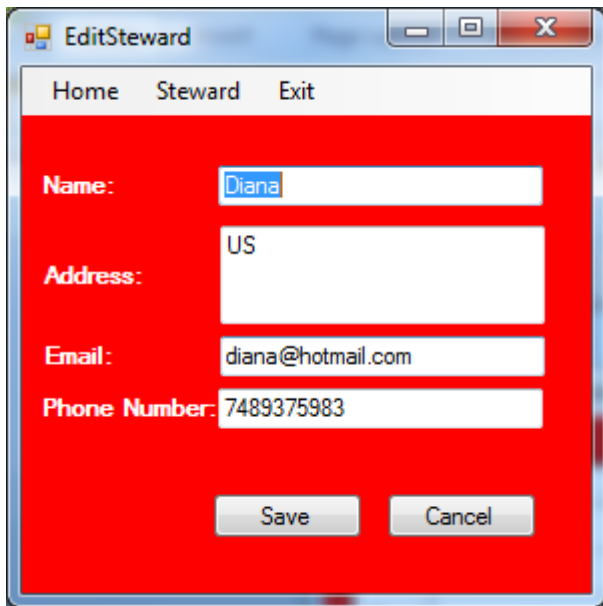
The EditSteward form is sued to update the detail of stewards. It shows the current information of steward and updates the information, if the user wants to make any changes.

The Microsoft SQL Server is used to implement the database. The data is not directed contacted through the commands. The data in the database is contacted by the user interface through the stored procedures. It is the best way for the database security.

The stored procedure to add new steward is like below-

```
USE [Greenwich]
GO
/****** Object:  StoredProcedure [dbo].[p_add_steward]    Script Date:
07/12/2016 16:49:04 ******/
Create Procedure [dbo].[p_add_steward]
@s_name nvarchar(50),
@s_address nvarchar(255),
@s_email nvarchar(50),
@s_phone nvarchar(20)
as
begin
insert into Steward(Name, Address, Email, PhoneNumber) values(@s_name,
@s_address, @s_email, @s_phone);
end
```
(Microsoft, 2016)

The database is completely accessed by the user interface through the stored procedures. The stored procedures are very good for the security point of view and that is why I used in the Greenwich United Football Club windows application. It is the best practice and all procedures are giving satisfied results. The security is the basic need of each and every application. It should be maintained while developing the application. The stored procedures are helping to implement the good security feature in the windows application.

Self Reflection

I learned so many things while working on this assignment like below-

- Learned to develop the windows application from scratch.
- Learned the concept of class and object.
- Learned stored procedures in the database.
- Learned 3 tier structures.
- Learned the data transfer in between the different windows forms.
- Learned the features of gridview control

I learned and understood the complete working and features of windows application. It is the best thing which I learned ever. I am completely confident now to implement or to edit a big project in VB.Net.

References

[1] net-informations.com. (2016), VB.Net Tutorial and source code, [Online]. Available: http://vb.net-informations.com/. [Accessed: 12-May-2016]

[2] howtostartprogramming.com. (2010), 18. Subs, [Online]. Available: http://howtostartprogramming.com/vb-net/vb-net-tutorial-18-subs/. [Accessed: 12-May-2016]

[3] dotnetperls.com. (n.d.), DataGridView, [Online]. Available: http://www.dotnetperls.com/datagridview-vbnet. [Accessed: 12-May-2016]

[4] dbtutorials.com. (2016), Introduction to the Gridview Control in VB.NET, [Online]. Available: http://www.dbtutorials.com/controls/introduction-to-the-gridview-control-in-vb-net/. [Accessed: 12-May-2016]

[5] Microsoft (2016), Create a Stored Procedure, [Online]. Available: https://msdn.microsoft.com/en-in/library/ms345415.aspx. [Accessed: 12-May-2016]

Appendices

AddSteward Page

```vb
Public Class AddSteward

    Private Sub ToolStripMenuItem1_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles ToolStripMenuItem1.Click

    End Sub

    Private Sub ExitToolStripMenuItem_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles ExitToolStripMenuItem.Click
        Me.Close()
    End Sub

    Private Sub EditToolStripMenuItem_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles EditToolStripMenuItem.Click
        ViewSteward.Show()
    End Sub

    Private Sub NewToolStripMenuItem_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles NewToolStripMenuItem.Click
        Me.Show()
    End Sub

    Private Sub MenuStrip1_ItemClicked(ByVal sender As System.Object, ByVal e As System.Windows.Forms.ToolStripItemClickedEventArgs) Handles MenuStrip1.ItemClicked

    End Sub

    Private Sub btnSave_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles btnSave.Click
        ' Add new steward
        Try
            If (NameTxt.Text = "") Then
                MsgBox("Enter name")
                NameTxt.Focus()
                Return
            End If

            If (Address.Text = "") Then
                MsgBox("Enter address")
                Address.Focus()
                Return
            End If

            If (Email.Text = "") Then
                MsgBox("Enter email")
                Email.Focus()
                Return
            End If

            If (Phone.Text = "") Then
                MsgBox("Enter phone")
                Phone.Focus()
                Return
            End If

            Dim obj As DataAccess = New DataAccess()
            obj.addSteward(NameTxt.Text, Address.Text, Email.Text, Phone.Text)
```

```vbnet
            lblError.Text = "Steward Added Successfully!"


        Catch ex As Exception
            lblError.Text = ex.ToString()
        End Try
    End Sub


End Class
```

ViewSteward Page

```vbnet
Public Class ViewSteward
    Public clientID As Integer
    Public Sub GridData()
        Try
            Dim dsSteward As DataSet = New DataSet()
            Dim obj As DataAccess = New DataAccess()
            dsSteward = obj.viewSteward()
            DataGridView1.DataSource = dsSteward
            DataGridView1.DataMember = "Steward_Table"

            Dim bEdit As New DataGridViewButtonColumn()
            DataGridView1.Columns.Add(bEdit)
            bEdit.HeaderText = ""
            bEdit.Text = "Edit"
            bEdit.Name = "bEdit"
            bEdit.UseColumnTextForButtonValue = True

            Dim bDelete As New DataGridViewButtonColumn()
            DataGridView1.Columns.Add(bDelete)
            bDelete.HeaderText = ""
            bDelete.Text = "Delete"
            bDelete.Name = "bDelete"
            bDelete.UseColumnTextForButtonValue = True
        Catch ex As Exception

        End Try


    End Sub
    Private Sub ViewSteward_Load(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles MyBase.Load
        Try
            GridData()
        Catch ex As Exception

        End Try


    End Sub



    Private Sub HomeToolStripMenuItem_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles HomeToolStripMenuItem.Click
        Form1.Show()
    End Sub
```

```vb
    Private Sub NewToolStripMenuItem_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles NewToolStripMenuItem.Click
        AddSteward.Show()
    End Sub

    Private Sub EditToolStripMenuItem_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles EditToolStripMenuItem.Click
        EditSteward.Show()
    End Sub

    Private Sub ExitToolStripMenuItem_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles ExitToolStripMenuItem.Click
        Me.Close()
    End Sub
End Class
```

EditSteward Page

```vb
Public Class EditSteward

    Private Sub ToolStripMenuItem1_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles ToolStripMenuItem1.Click

    End Sub

    Private Sub NewToolStripMenuItem_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles NewToolStripMenuItem.Click
        AddSteward.Show()
    End Sub

    Private Sub EditToolStripMenuItem_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles EditToolStripMenuItem.Click
        ViewSteward.Show()
    End Sub

    Private Sub HomeToolStripMenuItem_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles HomeToolStripMenuItem.Click
        Form1.Show()
    End Sub

    Private Sub ExitToolStripMenuItem_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles ExitToolStripMenuItem.Click
        Me.Close()
    End Sub

    Private Sub EditClient_Load(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles MyBase.Load
        ' Get Steward detail
        Try
            Dim dsData As DataSet = New DataSet()
            Dim obj As DataAccess = New DataAccess()
            dsData = obj.getStewardDetail(Convert.ToInt32(ViewSteward.clientID))
            NameTxt.Text = dsData.Tables(0).Rows(0)(1).ToString()
            Address.Text = dsData.Tables(0).Rows(0)(2).ToString()
            Email.Text = dsData.Tables(0).Rows(0)(3).ToString()
            Phone.Text = dsData.Tables(0).Rows(0)(4).ToString()
        Catch ex As Exception
            lblError.Text = ex.ToString()
        End Try
    End Sub
```

```vbnet
    Private Sub btnSave_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles btnSave.Click
        ' Updating the Steward detail into database
        Try
            If (NameTxt.Text = "") Then
                MsgBox("Enter name")
                NameTxt.Focus()
                Return
            End If

            If (Address.Text = "") Then
                MsgBox("Enter address")
                Address.Focus()
                Return
            End If

            If (Email.Text = "") Then
                MsgBox("Enter email")
                Email.Focus()
                Return
            End If

            If (Phone.Text = "") Then
                MsgBox("Enter phone")
                Phone.Focus()
                Return
            End If



            Dim obj As DataAccess = New DataAccess()
            obj.editSteward(Convert.ToInt32(ViewSteward.clientID), NameTxt.Text,
Address.Text, Email.Text, Phone.Text)
            lblError.Text = "Steward Updated Successfully!"
        Catch ex As Exception
            lblError.Text = ex.ToString()
        End Try
    End Sub


End Class
```

Conclusion

The report is showing complete knowledge about windows application. The application is built in VB.Net and all the important part regarding stewards of Greenwich United Football Club e.g. add steward, edit steward and delete steward. The admin staffs handle the steward data very easily with the help of this windows application.

In this way, the application is the most important and useful for the admin staff.