**CS 3630: Accessing Oracle from VB.NET (II)**

**Accessing multiple tables**

Public Class Oracle

. . .

Friend Shared OracleConnection As New System.Data.OracleClient.OracleConnection

' variables for booking

Friend Shared bookingAdapter As New System.Data.OracleClient.OracleDataAdapter

Friend Shared bookingCommand As New System.Data.OracleClient.OracleCommand

Friend Shared bookingCommandBuilder As System.Data.OracleClient.OracleCommandBuilder

Friend Shared myTable As New System.Data.DataTable

' One command, adapter and builder for each table

Friend Shared hotelAdapter As New System.Data.OracleClient.OracleDataAdapter

Friend Shared hotelCommand As New System.Data.OracleClient.OracleCommand

Friend Shared hotelBuilder As System.Data.OracleClient.OracleCommandBuilder

Friend Shared hotelTable As New System.Data.DataTable

Public Shared Sub LogInAtRunTime()

' set the connecting string

' Set up hotel table

hotelCommand.CommandType = CommandType.Text

hotelCommand.CommandText = "Select \* from hotel"

hotelCommand.Connection = myConnection

hotelAdapter.SelectCommand = hotelCommand

hotelBuilder = New System.Data.OleDb.OleDbCommandBuilder(hotelAdapter)

hotelAdapter.Fill(hotelTable)

' Set up booking table

End Sub

End Class

Form 1

Private Sub Form1\_Load(. . .) Handles MyBase.Load

DataGridView1.DataSource = Oracle.bookingTable

DataGridView2.DataSource = Oracle.hotelTable

End Sub

**Binding individual controls to database fields**

' Binding in the form load event

Private Sub Form1\_Load(. . .) Handles MyBase.Load

txtHotelAddress.DataBindings.Add("Text", Oracle.hotelTable, "Address")

txtHotelName.DataBindings.Add("Text", Oracle.hotelTable, "Name")

txtHotelNo.DataBindings.Add("Text", Oracle.hotelTable, "Hotel\_No")

txtHotel\_No.DataBindings.Add("Text", Oracle.bookingTable, "Hotel\_No")

txtGuestNo.DataBindings.Add("Text", Oracle.bookingTable, "Guest\_No")

dtpDateFrom.DataBindings.Add("Text", Oracle.bookingTable, "Date\_From")

End Sub

**BindingSource for Navigation and Update**

Private hotelBindingSource As New BindingSource

Private bookingBindingSource As New BindingSource

Private Sub Form1\_Load(. . .) Handles MyBase.Load

hotelBindingSource.DataSource = Oracle.hotelTable

txtHotelAddress.DataBindings.Add("Text", hotelBindingSource, "Address")

txtHotelName.DataBindings.Add("Text", hotelBindingSource, "Name")

txtHotelNo.DataBindings.Add("Text", hotelBindingSource, "Hotel\_No")

bookingBindingSource.DataSource = Oracle.bookingTable

txtHotel\_No.DataBindings.Add("Text", bookingBindingSource, "Hotel\_No")

txtGuestNo.DataBindings.Add("Text", bookingBindingSource, "Guest\_No")

txtDateFrom.DataBindings.Add("Text", bookingBindingSource, "Date\_From")

dtpDateFrom.DataBindings.Add("Text", bookingBindingSource, "Date\_From")

End Sub

' Navigation

Private Sub btnNext\_Click(. . .) Handles btnNext.Click

hotelBindingSource.MoveNext()

End Sub

Private Sub btnPrev\_Click(. . .) Handles btnPrev.Click

hotelBindingSource.MovePrevious()

End Sub

**Display Position and Count**

txtPosition.Text = (hotelBindingSource.Position + 1) & "/" & hotelBindingSource.Count

**Update, Insert and Delete**

' Update

Private Sub Button1\_Click\_1(. . .) Handles Button1.Click

Try

hotelBindingSource.EndEdit()

Oracle.hotelAdapter.Update(Oracle.hotelTable)

Catch ex As Exception

MessageBox.Show(ex.Message)

End Try

End Sub

' Add New

' Need to Update

Private Sub Button2\_Click\_1(. . .) Handles Button2.Click

Dim r As DataRow

r = Oracle.hotelTable.NewRow

Oracle.hotelTable.Rows.Add(r)

' The new row is added at the end

hotelBindingSource.MoveLast()

txtPosition.Text = (hotelBindingSource.Position + 1) & "/" & hotelBindingSource.Count

End Sub

' Delete

' Need to Update

Private Sub Button3\_Click(. . .) Handles Button3.Click

Try

hotelBindingSource.RemoveCurrent()

txtPosition.Text = (hotelBindingSource.Position + 1) & "/" & hotelBindingSource.Count

Catch ex As Exception

MessageBox.Show(ex.Message)

End Try

End Sub

**DataView**

Class Oracle

' Table needs a name to use DataView

Friend bookingTable As New System.Data.DataTable("Booking")

Form1

' Accessing different subsets of records of a table at different times

' Sorting records on different columns

Private bookingDataView As New DataView()

Private Sub Form1\_Load(. . .) Handles MyBase.Load

' set up hotelBindingSource

bookingDataView.Table = Oracle.bookingTable

bookingBindingSource.DataSource = bookingDataView

txtHotel\_No.DataBindings.Add("Text", bookingBindingSource, "Hotel\_No")

txtGuestNo.DataBindings.Add("Text", bookingBindingSource, "Guest\_No")

txtDateFrom.DataBindings.Add("Text", bookingBindingSource, "Date\_From")

dtpDateFrom.DataBindings.Add("Text", bookingBindingSource, "Date\_From")

bookingDataView.RowFilter = "Hotel\_No = '" & txtHotelNo.Text & "'"

End Sub

Private Sub btnNext\_Click(. . .) Handles btnNext.Click

hotelBindingSource.MoveNext()

bookingDataView.RowFilter = "Hotel\_No = '" & txtHotelNo.Text & "'"

End Sub

Private Sub btnPrev\_Click(. . .) Handles btnPrev.Click

hotelBindingSource.MovePrevious()

bookingDataView.RowFilter = "Hotel\_No = '" & txtHotelNo.Text & "'"

End Sub

**Update table**

The same as before, using adapter on DataTable.

**Adding new records**

' Adds new record into dataTable, not the database

' Need to update to save the new record

Private Sub Button6\_Click(...) Handles Button6.Click

Dim r As DataRowView

r = bookingBindingSource.AddNew

' Set the required field value

' Needed?

r(0) = txtHotelNo.Text

' The new row is added at the end

bookingBindingSource.MoveLast()

End Sub

**Deleting a record**

' Deleting a record from dataTable, not the database

' Need to update to delete the record from database

Try

bookingBindingSource.RemoveCurrent()

Catch ex As Exception

MessageBox.Show(ex.Message)

End Try

**Search and All: DataView or CommandText**

' Search on Hotel Name

Private Sub Button10\_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles Button10.Click

hotelCommand.CommandText = "Select \* from hotel " & \_

"Where Name = '" & TextBox1.Text & "'"

Oracle.hotelTable.Clear()

hotelAdapter.Fill(Oracle.hotelTable)

' Need to set row filter for bookingDataView

End Sub

Private Sub Button9\_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles Button9.Click

hotelCommand.CommandText = "Select \* from hotel "

hotelTable.Clear()

hotelAdapter.Fill(hotelTable)

' Need to set row filter for bookingDataView

End Sub

**Using DataView on Qualification and Experience, but DO NOT use it for Staff!**

It may cuase connection time out in VS.

**Disable/Enable Buttons**