

# Lab 05 Code Implementation

## Code Implementation Report

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## 1 About.aspx code

```
1 <%@ Page Title="About" Language="VB" MasterPageFile="~/Site.Master"
  AutoEventWireup="true" CodeBehind="About.aspx.vb" Inherits="Lab05_solution.
  About" %>
2
3 <asp:Content ID="BodyContent" ContentPlaceHolderID="MainContent" runat="server">
4   <main aria-labelledby="title">
5     <h2 id="title"><%= Title %>.</h2>
6     <p>Your app description page.</p>
7     <p>Use this area to provide additional information.</p>
8   </main>
9 </asp:Content>
```

## 2 About.aspx.vb code

```
1 Public Class About
2   Inherits Page
3
4   Protected Sub Page_Load(ByVal sender As Object, ByVal e As EventArgs)
5     Handles Me.Load
6
7   End Sub
8 End Class
```

## 3 About.aspx.designer.vb code

```
1 Option Strict On
2 Option Explicit On
3
4 Partial Public Class About
5 End Class
```

## 4 Contact.aspx code

```
1 <%@ Page Title="Contact" Language="VB" MasterPageFile="~/Site.Master"
  AutoEventWireup="true" CodeBehind="Contact.aspx.vb" Inherits="Lab05_solution.
  Contact" %>
2
3 <asp:Content ID="BodyContent" ContentPlaceHolderID="MainContent" runat="server">
4   <main aria-labelledby="title">
5     <h2 id="title"><%= Title %></h2>
6     <p>Your contact page.</p>
7
8     <address>
9       One Microsoft Way<br />
10      Redmond, WA 98052-6399<br />
11      <abbr title="Phone">P:</abbr>
12      425.555.0100
13    </address>
```

```

14     <address>
15         <strong>Support:</strong><a href="mailto:Support@example.com">
16     Support@example.com</a><br />
17         <strong>Marketing:</strong><a href="mailto:Marketing@example.com">
18     Marketing@example.com</a>
19     </address>
20 </main>
</asp:Content>

```

## 5 Contact.aspx.vb code

```

1 Public Class Contact
2     Inherits Page
3
4     Protected Sub Page_Load(ByVal sender As Object, ByVal e As EventArgs)
5         Handles Me.Load
6
7     End Sub
End Class

```

## 6 Contact.aspx.designer.vb code

```

1 Option Strict On
2 Option Explicit On
3
4 Partial Public Class Contact
5 End Class

```

## 7 Default.aspx code

```

1 <%@ Page Title="Home Page" Language="VB" MasterPageFile="~/Site.Master"
2     AutoEventWireup="true" CodeBehind="Default.aspx.vb" Inherits="Lab05_solution.
3     _Default" %>
4
5 <asp:Content ID="BodyContent" ContentPlaceHolderID="MainContent" runat="server">
6     <div style="text-align: center; font-family: Arial;">
7         <h1>Pine Valley Furniture Portal</h1>
8         <p>Welcome to the Management System. Please select a task:</p>
9
10        <table align="center" border="1" cellpadding="20" style="border-collapse
11        : collapse;">
12            <tr>
13                <td>
14                    <h3>Customers</h3>
15                    <a href="<%= ResolveUrl("~/Register.aspx") %>">Register New
16                    Customer</a><br />
17                    <a href="<%= ResolveUrl("~/UpdateCustomer.aspx") %>">Update
18                    Customer Data</a>
19                </td>

```

```

15         <td>
16             <h3>Inventory</h3>
17             <a href="<%%= ResolveUrl("~/Search.aspx") %>">Search Products
18         </a>
19     </td>
20 </tr>
21 <tr>
22     <td>
23         <h3>Orders</h3>
24         <a href="<%%= ResolveUrl("~/Orders.aspx") %>">Place New Order
25     </a>
26     </td>
27     <td>
28         <h3>Admin</h3>
29         <a href="<%%= ResolveUrl("~/Admin.aspx") %>">Update Catalog</
30     a>
31 </td>
32 </tr>
33 </table>
</div>
</asp:Content>

```

## 8 Default.aspx.vb code

```

1 Imports System.Data
2 Imports System.Data.SqlClient
3 Imports System.Configuration
4
5 Public Class _Default
6     Inherits Page
7
8     Protected Sub Page_Load(ByVal sender As Object, ByVal e As EventArgs)
9         Handles Me.Load
10
11     End Sub
12 End Class

```

## 9 Default.aspx.designer.vb code

```

1 Option Strict On
2 Option Explicit On
3
4 Partial Public Class _Default
5 End Class

```

## 10 Help.aspx code

```

1 <%@ Page Title="" Language="vb" AutoEventWireup="false" MasterPageFile="~/Site.
  Master" CodeBehind="Help.aspx.vb" Inherits="Lab05_solution.Help" %>
2
3 <asp:Content ID="Content1" ContentPlaceHolderID="MainContent" runat="server">
4   <div style="font-family: Arial; padding: 20px;">
5     <h2>User Guidance & Help</h2>
6     <hr />
7     <ul>
8       <li><strong>Search Products:</strong> Enter a name or wood finish (
  like 'Cherry') to see available stock.</li>
9       <li><strong>Registration:</strong> Used to add new customers to the
  database.</li>
10      <li><strong>Place Order:</strong> Select a customer and a product to
  record a sale in the Order tables.</li>
11      <li><strong>Update Catalog:</strong> For administrators to add new
  furniture items.</li>
12      <li><strong>Payment:</strong> Enter a valid Order ID to process a
  payment simulation.</li>
13    </ul>
14    <p>For technical issues, contact the system administrator.</p>
15  </div>
16 </asp:Content>

```

## 11 Help.aspx.vb code

```

1 Partial Public Class Help
2   Inherits System.Web.UI.Page
3
4   Protected Sub Page_Load(ByVal sender As Object, ByVal e As System.EventArgs)
  Handles Me.Load
5
6   End Sub
7
8 End Class

```

## 12 Help.aspx.designer.vb code

```

1 Option Strict On
2 Option Explicit On
3
4 Partial Public Class Help
5 End Class

```

## 13 Orders.aspx code

```

1 <%@ Page Title="Order" Language="vb" AutoEventWireup="false" MasterPageFile="~/
  Site.Master" CodeBehind="Orders.aspx.vb" Inherits="Lab05_solution.Orders" %>
2
3 <asp:Content ID="Content1" ContentPlaceHolderID="MainContent" runat="server">
4   <div style="font-family: Arial; padding: 20px; max-width: 500px;">

```

```

5     <h3>Place New Order</h3>
6     <hr />
7
8     <asp:Panel ID="pnlSelectedProducts" runat="server" Visible="false" Style
9     ="margin-bottom: 20px; padding: 10px; border: 1px solid #d6e9c6; background-
10    color: #dff0d8;">
11         <strong>Products selected from Search:</strong>
12         <asp:BulletedList ID="blSelectedProducts" runat="server" BulletStyle
13         ="Disc" Style="margin-top: 5px;">
14         </asp:BulletedList>
15     </asp:Panel>
16
17     <div style="margin-bottom: 15px;">
18         <label>Select Customer:</label><br />
19         <asp:DropDownList ID="ddlCustomers" runat="server" Style="width:
20         100%; padding: 5px;">
21         </asp:DropDownList>
22     </div>
23
24     <div style="margin-bottom: 15px;">
25         <label>Select Product:</label><br />
26         <asp:DropDownList ID="ddlProducts" runat="server" Style="width:
27         100%; padding: 5px;">
28         </asp:DropDownList>
29     </div>
30
31     <div style="margin-bottom: 15px;">
32         <label>Ordered Quantity:</label><br />
33         <asp:TextBox ID="txtQty" runat="server" TextMode="Number" Style="
34         width: 100px; padding: 5px;"></asp:TextBox>
35     </div>
36
37     <div style="margin-top: 20px;">
38         <asp:Button ID="btnPlaceOrder" runat="server" Text="Submit Order"
39         OnClick="btnPlaceOrder_Click" Style="padding: 10px; background-color: #4CAF50
40         ; color: white; border: none; cursor: pointer;" />
41     </div>
42
43     <br />
44     <asp:Label ID="lblOrderMsg" runat="server"></asp:Label>
45 </div>
46 </asp:Content>

```

## 14 Orders.aspx.vb code

```

1 Imports System.Data
2 Imports System.Data.SqlClient
3 Imports System.Configuration
4
5 Partial Public Class Orders
6     Inherits System.Web.UI.Page
7
8     Dim connStr As String = ConfigurationManager.ConnectionStrings("FurnitureDB"
9     ).ConnectionString
10    Dim con As SqlConnection

```

```

11 Protected Sub Page_Load(ByVal sender As Object, ByVal e As System.EventArgs)
    Handles Me.Load
12     If Not IsPostBack Then
13         LoadData()
14         LoadSelectedProducts()
15     End If
16 End Sub
17
18 Private Sub LoadSelectedProducts()
19     If Session("SelectedProducts") IsNot Nothing Then
20         Dim dt As DataTable = CType(Session("SelectedProducts"), DataTable)
21         If dt.Rows.Count > 0 Then
22             pnlSelectedProducts.Visible = True
23             blSelectedProducts.Items.Clear()
24
25             For Each row As DataRow In dt.Rows
26                 blSelectedProducts.Items.Add(row("ProductName").ToString() &
27                 " (ID: " & row("ProductID").ToString() & ")")
28             Next
29
30             Dim firstProductId As String = dt.Rows(0)("ProductID").ToString
31             Dim item As ListItem = ddlProducts.Items.FindByValue(
32             firstProductId)
33             If item IsNot Nothing Then
34                 ddlProducts.SelectedValue = firstProductId
35             End If
36         End If
37     End Sub
38
39 Private Sub LoadData()
40     Try
41         con = New SqlConnection(connStr)
42         con.Open()
43
44         Dim queryCust As String = "SELECT CUSTOMER_ID, CUSTOMER_NAME FROM
45         customer_T"
46         Dim cmdCust As New SqlCommand(queryCust, con)
47
48         ddlCustomers.DataSource = cmdCust.ExecuteReader()
49         ddlCustomers.DataTextField = "CUSTOMER_NAME"
50         ddlCustomers.DataValueField = "CUSTOMER_ID"
51         ddlCustomers.DataBind()
52         ddlCustomers.Items.Insert(0, New ListItem("-- Select Customer --", "
53         0"))
54
55         con.Close()
56
57         con.Open()
58
59         Dim queryProd As String = "SELECT PRODUCT_ID, PRODUCT_DESCRIPTION
60         FROM Product_T"
61         Dim cmdProd As New SqlCommand(queryProd, con)
62
63         ddlProducts.DataSource = cmdProd.ExecuteReader()
64         ddlProducts.DataTextField = "PRODUCT_DESCRIPTION"

```

```

62         ddlProducts.DataValueField = "PRODUCT_ID"
63         ddlProducts.DataBind()
64         ddlProducts.Items.Insert(0, New ListItem("-- Select Product --", "0"
))
65
66         con.Close()
67
68     Catch ex As Exception
69         lblOrderMsg.Text = "Error loading data: " & ex.Message
70         lblOrderMsg.ForeColor = System.Drawing.Color.Red
71         con.Close()
72     End Try
73
74 End Sub
75
76
77 Protected Sub btnPlaceOrder_Click(sender As Object, e As EventArgs) Handles
btnPlaceOrder.Click
78
79     Try
80         con = New SqlConnection(connStr)
81         con.Open()
82
83         Dim randomOID As Integer
84         randomOID = New Random().Next(2000, 9999)
85
86         Dim queryOrder As String =
87             "INSERT INTO Order_T (ORDER_ID, CUSTOMER_ID, ORDER_DATE) VALUES
(@OrderID, @CustomerID, @OrderDate)"
88
89         Dim cmdOrder As New SqlCommand(queryOrder, con)
90         cmdOrder.Parameters.AddWithValue("@OrderID", randomOID)
91         cmdOrder.Parameters.AddWithValue("@CustomerID", CInt(ddlCustomers.
SelectedValue))
92         cmdOrder.Parameters.AddWithValue("@OrderDate", DateTime.Now)
93         cmdOrder.ExecuteNonQuery()
94
95         Dim queryLine As String =
96             "INSERT INTO Order_Line_T (ORDER_ID, PRODUCT_ID,
ORDERED_QUANTITY) VALUES (@OrderID, @ProductID, @Qty)"
97
98         Dim cmdLine As New SqlCommand(queryLine, con)
99         cmdLine.Parameters.AddWithValue("@OrderID", randomOID)
100        cmdLine.Parameters.AddWithValue("@ProductID", CInt(ddlProducts.
SelectedValue))
101        cmdLine.Parameters.AddWithValue("@Qty", CInt(txtQty.Text))
102        cmdLine.ExecuteNonQuery()
103
104        con.Close()
105
106        lblOrderMsg.Text = "Order " & randomOID & " placed successfully!"
107        lblOrderMsg.ForeColor = System.Drawing.Color.Green
108
109        Response.Redirect("Payment.aspx?OrderID=" & randomOID)
110
111    Catch ex As Exception
112        lblOrderMsg.Text = "Error: " & ex.Message
113        lblOrderMsg.ForeColor = System.Drawing.Color.Red

```

```

114         con.Close()
115     End Try
116
117     End Sub
118
119 End Class

```

## 15 Orders.aspx.designer.vb code

```

1 Option Strict On
2 Option Explicit On
3
4 Partial Public Class Orders
5     Protected WithEvents pnlSelectedProducts As Global.System.Web.UI.WebControls
        .Panel
6     Protected WithEvents blSelectedProducts As Global.System.Web.UI.WebControls.
        BulletedList
7     Protected WithEvents ddlCustomers As Global.System.Web.UI.WebControls.
        DropDownList
8     Protected WithEvents ddlProducts As Global.System.Web.UI.WebControls.
        DropDownList
9     Protected WithEvents txtQty As Global.System.Web.UI.WebControls.TextBox
10    Protected WithEvents btnPlaceOrder As Global.System.Web.UI.WebControls.
        Button
11    Protected WithEvents lblOrderMsg As Global.System.Web.UI.WebControls.Label
12 End Class

```

## 16 Payment.aspx code

```

1 <%@ Page Title="Payment Page" Language="vb" AutoEventWireup="false"
    MasterPageFile="~/Site.Master" CodeBehind="Payment.aspx.vb" Inherits="
    Lab05_solution.Payment" %>
2
3 <asp:Content ID="Content1" ContentPlaceHolderID="MainContent" runat="server">
4     <div style="font-family: Arial; padding: 20px; max-width: 500px;">
5         <h3>Payment Provision</h3>
6         <hr />
7         <p>Please enter your order details to process the payment.</p>
8
9         <div style="margin-bottom: 15px;">
10            <label>Order ID to Pay For:</label><br />
11            <asp:TextBox ID="txtOrderID" runat="server" Style="width: 100%;
                padding: 5px;" placeholder="e.g. 1001"></asp:TextBox>
12        </div>
13
14        <div style="margin-bottom: 15px;">
15            <label>Payment Method:</label><br />
16            <asp:RadioButtonList ID="rblPaymentMethod" runat="server">
17                <asp:ListItem Text="Credit/Debit Card" Value="Card" Selected="
                True" />
18                <asp:ListItem Text="Bank Transfer" Value="Bank" />
19            </asp:RadioButtonList>
20        </div>

```

```

21     <div style="margin-bottom: 15px;">
22         <label>Card or Account Number:</label><br />
23         <asp:TextBox ID="txtCardNumber" runat="server" Style="width: 100%;
24 padding: 5px;" MaxLength="16"></asp:TextBox>
25     </div>
26
27     <div style="margin-top: 20px;">
28         <asp:Button ID="btnProcessPayment" runat="server" Text="Process
29 Payment"
30         OnClick="btnProcessPayment_Click" Style="padding: 10px;
31 background-color: #007bff; color: white; border: none; cursor: pointer;" />
32     </div>
33
34     <br />
35     <asp:Label ID="lblPaymentMsg" runat="server"></asp:Label>
36 </div>
</asp:Content>

```

## 17 Payment.aspx.vb code

```

1 Imports System.Data.SqlClient
2 Imports System.Configuration
3
4 Partial Public Class Payment
5     Inherits System.Web.UI.Page
6
7     Dim connStr As String = ConfigurationManager.ConnectionStrings("FurnitureDB"
8 ).ConnectionString
9     Dim con As SqlConnection
10
11     Protected Sub Page_Load(ByVal sender As Object, ByVal e As System.EventArgs)
12         Handles Me.Load
13
14         If Not IsPostBack Then
15             If Request.QueryString("OrderID") IsNot Nothing Then
16                 txtOrderID.Text = Request.QueryString("OrderID")
17             End If
18         End If
19     End Sub
20
21     Protected Sub btnProcessPayment_Click(sender As Object, e As EventArgs)
22         Handles btnProcessPayment.Click
23
24         Try
25             con = New SqlConnection(connStr)
26             con.Open()
27
28             Dim query As String = "SELECT COUNT(*) FROM Order_T WHERE ORDER_ID =
29 @OrderID"
30
31             Dim cmd As New SqlCommand(query, con)
32             cmd.Parameters.AddWithValue("@OrderID", CInt(txtOrderID.Text))

```

```

31         Dim count As Integer
32         count = Convert.ToInt32(cmd.ExecuteScalar())
33
34         If count > 0 Then
35
36             lblPaymentMsg.Text = "Payment processed successfully for Order #
37 " & txtOrderID.Text
38             lblPaymentMsg.ForeColor = System.Drawing.Color.Green
39
40             txtCardNumber.Text = ""
41
42         Else
43             lblPaymentMsg.Text = "Error: Order ID not found."
44             lblPaymentMsg.ForeColor = System.Drawing.Color.Red
45         End If
46
47         con.Close()
48
49         Catch ex As Exception
50
51             lblPaymentMsg.Text = "Payment Error: " & ex.Message
52             lblPaymentMsg.ForeColor = System.Drawing.Color.Red
53             con.Close()
54
55         End Try
56
57     End Sub
58
59 End Class

```

## 18 Payment.aspx.designer.vb code

```

1  Option Strict On
2  Option Explicit On
3
4  Partial Public Class Payment
5      Protected WithEvents txtOrderID As Global.System.Web.UI.WebControls.TextBox
6      Protected WithEvents rblPaymentMethod As Global.System.Web.UI.WebControls.
7      RadioButtonList
8      Protected WithEvents txtCardNumber As Global.System.Web.UI.WebControls.
9      TextBox
10     Protected WithEvents btnProcessPayment As Global.System.Web.UI.WebControls.
11     Button
12     Protected WithEvents lblPaymentMsg As Global.System.Web.UI.WebControls.Label
13 End Class

```

## 19 Register.aspx code

```

1  <%@ Page Title="Registration Form" Language="vb" AutoEventWireup="false"
2  MasterPageFile="~/Site.Master" CodeBehind="Register.aspx.vb" Inherits="
3  Lab05_solution.Register" %>

```

```

3 <asp:Content ID="Content1" ContentPlaceHolderID="MainContent" runat="server">
4   <div style="font-family: Arial; padding: 20px; max-width: 400px;">
5     <h3>New Customer Registration</h3>
6     <hr />
7
8     <div style="margin-bottom: 10px;">
9       <label>Full Name:</label><br />
10      <asp:TextBox ID="txtName" runat="server" Style="width: 100%; padding
: 5px;"></asp:TextBox>
11    </div>
12
13    <div style="margin-bottom: 10px;">
14      <label>Address:</label><br />
15      <asp:TextBox ID="txtAddress" runat="server" Style="width: 100%;
padding: 5px;"></asp:TextBox>
16    </div>
17
18    <div style="margin-bottom: 10px;">
19      <label>City:</label><br />
20      <asp:TextBox ID="txtCity" runat="server" Style="width: 100%; padding
: 5px;"></asp:TextBox>
21    </div>
22
23    <div style="margin-bottom: 10px;">
24      <label>State (2 Letters):</label><br />
25      <asp:TextBox ID="txtState" runat="server" MaxLength="2" Style="width
: 50px; padding: 5px;"></asp:TextBox>
26    </div>
27
28    <div style="margin-bottom: 10px;">
29      <label>Postal Code:</label><br />
30      <asp:TextBox ID="txtZip" runat="server" Style="width: 100%; padding:
5px;"></asp:TextBox>
31    </div>
32
33    <div style="margin-top: 20px;">
34      <asp:Button ID="btnRegister" runat="server" Text="Register Customer"
OnClick="btnRegister_Click" Style="padding: 10px; cursor: pointer;" />
35    </div>
36
37    <br />
38    <asp:Label ID="lblMsg" runat="server"></asp:Label>
39  </div>
40 </asp:Content>

```

## 20 Register.aspx.vb code

```

1 Imports System.Configuration
2 Imports System.Data.SqlClient
3
4 Partial Public Class Register
5     Inherits System.Web.UI.Page
6
7     Protected Sub btnRegister_Click(sender As Object, e As EventArgs)
8         Handles btnRegister.Click

```

```

9      Dim connStr As String = ConfigurationManager.ConnectionStrings("
FurnitureDB").ConnectionString
10
11      Try
12          Using con As New SqlConnection(connStr)
13
14              Dim query As String =
15                  "INSERT INTO customer_T (CUSTOMER_NAME, CUSTOMER_ADDRESS,
CUSTOMER_CITY, CUSTOMER_STATE, POSTAL_CODE) VALUES (@Name, @Address, @City,
@State, @Zip)"
16
17              Dim cmd As New SqlCommand(query, con)
18              cmd.Parameters.AddWithValue("@Name", txtName.Text)
19              cmd.Parameters.AddWithValue("@Address", txtAddress.Text)
20              cmd.Parameters.AddWithValue("@City", txtCity.Text)
21              cmd.Parameters.AddWithValue("@State", txtState.Text)
22              cmd.Parameters.AddWithValue("@Zip", txtZip.Text)
23
24              con.Open()
25              cmd.ExecuteNonQuery()
26
27              lblMsg.ForeColor = Drawing.Color.Green
28              lblMsg.Text = "Customer Registered Successfully!"
29
30          End Using
31
32      Catch ex As Exception
33
34          lblMsg.ForeColor = Drawing.Color.Red
35          lblMsg.Text = "Error: " & ex.Message
36
37      End Try
38
39      End Sub
40
41  End Class

```

## 21 Register.aspx.designer.vb code

```

1  Option Strict On
2  Option Explicit On
3
4  Partial Public Class Register
5      Protected WithEvents txtName As Global.System.Web.UI.WebControls.TextBox
6      Protected WithEvents txtAddress As Global.System.Web.UI.WebControls.TextBox
7      Protected WithEvents txtCity As Global.System.Web.UI.WebControls.TextBox
8      Protected WithEvents txtState As Global.System.Web.UI.WebControls.TextBox
9      Protected WithEvents txtZip As Global.System.Web.UI.WebControls.TextBox
10     Protected WithEvents btnRegister As Global.System.Web.UI.WebControls.Button
11     Protected WithEvents lblMsg As Global.System.Web.UI.WebControls.Label
12 End Class

```

## 22 Search.aspx code

```

1 <%@ Page Title="" Language="vb" AutoEventWireup="false" MasterPageFile="~/Site.
  Master" CodeBehind="Search.aspx.vb" Inherits="Lab05_solution.Search" %>
2
3 <asp:Content ID="Content1" ContentPlaceHolderID="MainContent" runat="server">
4   <div style="font-family: Arial; padding: 20px;">
5     <h3>Product Search</h3>
6     <hr />
7
8     <div style="margin-bottom: 20px;">
9       <label>Search Name or Category:</label><br />
10      <asp:TextBox ID="txtSearch" runat="server" Style="padding: 5px;
  width: 250px;"></asp:TextBox>
11      <asp:Button ID="btnSearch" runat="server" Text="Search" OnClick="
  btnSearch_Click" Style="padding: 5px;" />
12    </div>
13
14    <div>
15      <asp:GridView ID="gvProducts" runat="server" border="1" CellPadding=
  "10" Style="border-collapse: collapse; width: 100%;" AutoGenerateColumns="
  False" DataKeyNames="PRODUCT_ID">
16        <HeaderStyle BackColor="#e6e6e6" />
17        <Columns>
18          <asp:BoundField DataField="PRODUCT_ID" HeaderText="ID" />
19          <asp:BoundField DataField="PRODUCT_DESCRIPTION" HeaderText="
  Description" />
20          <asp:BoundField DataField="PRODUCT_FINISH" HeaderText="
  Finish" />
21          <asp:BoundField DataField="STANDARD_PRICE" HeaderText="Price
  " DataFormatString="{0:C}" />
22          <asp:TemplateField HeaderText="Action">
23            <ItemTemplate>
24              <asp:Button ID="btnAddToOrder" runat="server" Text="
  Add to Order" CommandName="AddToOrder" CommandArgument='<%=# Eval("PRODUCT_ID"
  ) & "|" & Eval("PRODUCT_DESCRIPTION") %>' Style="padding: 5px; background-
  color: #4CAF50; color: white; border: none; cursor: pointer;" />
25            </ItemTemplate>
26          </asp:TemplateField>
27        </Columns>
28      </asp:GridView>
29      <br />
30      <asp:Label ID="lblSearchMsg" runat="server" ForeColor="Red"></asp:
  Label>
31    </div>
32
33    <div style="margin-top: 20px; padding: 15px; border: 1px solid #ddd;
  background-color: #f9f9f9;" id="divCart" runat="server">
34      <h4>Selected Products for Order</h4>
35      <asp:GridView ID="gvSelectedProducts" runat="server" border="1"
  CellPadding="8" Style="border-collapse: collapse; width: 100%;"
  AutoGenerateColumns="False">
36        <HeaderStyle BackColor="#d9edf7" />
37        <Columns>
38          <asp:BoundField DataField="ProductID" HeaderText="Product ID
  " />
39          <asp:BoundField DataField="ProductName" HeaderText="Product
  Name" />
40          <asp:TemplateField HeaderText="Remove">

```

```

41         <ItemTemplate>
42             <asp:Button ID="btnRemove" runat="server" Text="
Remove" CommandName="RemoveFromOrder" CommandArgument='<%# Eval("ProductID")
%>' Style="padding: 3px 8px; cursor: pointer;" />
43         </ItemTemplate>
44     </asp:TemplateField>
45 </Columns>
46 </asp:GridView>
47 <asp:Label ID="lblCartEmpty" runat="server" Text="No products
selected yet." ForeColor="Gray"></asp:Label>
48 <br /><br />
49 <asp:Button ID="btnProceedToOrder" runat="server" Text="Proceed to
Order Placement" OnClick="btnProceedToOrder_Click" Style="padding: 10px 20px;
background-color: #337ab7; color: white; border: none; cursor: pointer; font
-size: 14px;" />
50 </div>
51 </div>
52 </asp:Content>

```

## 23 Search.aspx.vb code

```

1 Imports System.Data
2 Imports System.Data.SqlClient
3 Imports System.Configuration
4
5 Partial Public Class Search
6     Inherits Page
7
8     Dim connStr As String = ConfigurationManager.ConnectionStrings("FurnitureDB"
).ConnectionString
9     Dim con As SqlConnection
10
11     Private Property SelectedProducts As DataTable
12     Get
13         If Session("SelectedProducts") Is Nothing Then
14             Dim dt As New DataTable()
15             dt.Columns.Add("ProductID", GetType(String))
16             dt.Columns.Add("ProductName", GetType(String))
17             Session("SelectedProducts") = dt
18         End If
19         Return CType(Session("SelectedProducts"), DataTable)
20     End Get
21     Set(value As DataTable)
22         Session("SelectedProducts") = value
23     End Set
24 End Property
25
26 Protected Sub Page_Load(ByVal sender As Object, ByVal e As EventArgs)
Handles Me.Load
27     If Not IsPostBack Then
28         LoadProducts()
29         BindSelectedProducts()
30     End If
31 End Sub
32
33 Public Sub LoadProducts()

```

```

34
35     Try
36         con = New SqlConnection(connStr)
37         con.Open()
38
39         Dim query As String = "SELECT PRODUCT_ID, PRODUCT_DESCRIPTION,
PRODUCT_FINISH, STANDARD_PRICE FROM Product_T"
40
41         Dim cmd As New SqlCommand(query, con)
42         Dim adapter As New SqlDataAdapter(cmd)
43         Dim dt As New DataTable()
44
45         adapter.Fill(dt)
46
47         gvProducts.DataSource = dt
48         gvProducts.DataBind()
49
50         con.Close()
51
52     Catch ex As Exception
53         lblSearchMsg.Text = "Error loading products: " & ex.Message
54         con.Close()
55     End Try
56
57 End Sub
58
59 Protected Sub btnSearch_Click(sender As Object, e As EventArgs) Handles
btnSearch.Click
60
61     Try
62         con = New SqlConnection(connStr)
63         con.Open()
64
65         Dim searchText As String = txtSearch.Text.Trim()
66
67         Dim query As String = "SELECT PRODUCT_ID, PRODUCT_DESCRIPTION,
PRODUCT_FINISH, STANDARD_PRICE " &
68             "FROM Product_T WHERE PRODUCT_DESCRIPTION LIKE
@search " &
69             "OR PRODUCT_FINISH LIKE @search"
70
71         Dim cmd As New SqlCommand(query, con)
72         cmd.Parameters.AddWithValue("@search", "%" & searchText & "%")
73         Dim adapter As New SqlDataAdapter(cmd)
74         Dim dt As New DataTable()
75
76         adapter.Fill(dt)
77
78         gvProducts.DataSource = dt
79         gvProducts.DataBind()
80
81         If dt.Rows.Count = 0 Then
82             lblSearchMsg.Text = "No products found."
83         Else
84             lblSearchMsg.Text = ""
85         End If
86
87         con.Close()

```

```

88
89     Catch ex As Exception
90         lblSearchMsg.Text = "Search Error: " & ex.Message
91         con.Close()
92     End Try
93
94 End Sub
95
96 Protected Sub gvProducts_RowCommand(sender As Object, e As
GridViewCommandEventArgs) Handles gvProducts.RowCommand
97     If e.CommandName = "AddToOrder" Then
98         Dim args() As String = e.CommandArgument.ToString().Split("|"c)
99         Dim productId As String = args(0)
100        Dim productName As String = args(1)
101
102        Dim dt As DataTable = SelectedProducts
103
104        Dim existing = dt.Select("ProductID = '" & productId.Replace("'", "
''') & "'")
105        If existing.Length = 0 Then
106            Dim row As DataRow = dt.NewRow()
107            row("ProductID") = productId
108            row("ProductName") = productName
109            dt.Rows.Add(row)
110            SelectedProducts = dt
111        End If
112
113        BindSelectedProducts()
114    End If
115 End Sub
116
117 Protected Sub gvSelectedProducts_RowCommand(sender As Object, e As
GridViewCommandEventArgs) Handles gvSelectedProducts.RowCommand
118     If e.CommandName = "RemoveFromOrder" Then
119         Dim productId As String = e.CommandArgument.ToString()
120         Dim dt As DataTable = SelectedProducts
121
122         For i As Integer = dt.Rows.Count - 1 To 0 Step -1
123             If dt.Rows(i)("ProductID").ToString() = productId Then
124                 dt.Rows.RemoveAt(i)
125             End If
126         Next
127
128         SelectedProducts = dt
129         BindSelectedProducts()
130     End If
131 End Sub
132
133 Private Sub BindSelectedProducts()
134     Dim dt As DataTable = SelectedProducts
135     gvSelectedProducts.DataSource = dt
136     gvSelectedProducts.DataBind()
137
138     lblCartEmpty.Visible = (dt.Rows.Count = 0)
139     gvSelectedProducts.Visible = (dt.Rows.Count > 0)
140 End Sub
141

```

```

142     Protected Sub btnProceedToOrder_Click(sender As Object, e As EventArgs)
        Handles btnProceedToOrder.Click
143         Response.Redirect("Orders.aspx")
144     End Sub
145
146 End Class

```

## 24 Search.aspx.designer.vb code

```

1 Option Strict On
2 Option Explicit On
3
4 Partial Public Class Search
5     Protected WithEvents txtSearch As Global.System.Web.UI.WebControls.TextBox
6     Protected WithEvents btnSearch As Global.System.Web.UI.WebControls.Button
7     Protected WithEvents gvProducts As Global.System.Web.UI.WebControls.GridView
8     Protected WithEvents lblSearchMsg As Global.System.Web.UI.WebControls.Label
9     Protected WithEvents gvSelectedProducts As Global.System.Web.UI.WebControls.
    GridView
10    Protected WithEvents lblCartEmpty As Global.System.Web.UI.WebControls.Label
11    Protected WithEvents btnProceedToOrder As Global.System.Web.UI.WebControls.
    Button
12 End Class

```

## 25 UpdateCustomer.aspx code

```

1 <%@ Page Title="Update Customer" Language="vb" AutoEventWireup="false"
    MasterPageFile="~/Site.Master" CodeBehind="UpdateCustomer.aspx.vb" Inherits="
    Lab05_solution.UpdateCustomer" %>
2
3 <asp:Content ID="Content1" ContentPlaceHolderID="MainContent" runat="server">
4     <div style="font-family: Arial; padding: 20px; max-width: 400px;">
5         <h3>Update Customer Data</h3>
6         <hr />
7
8         <div style="margin-bottom: 10px;">
9             <label>Customer ID:</label><br />
10            <asp:TextBox ID="txtCustomerId" runat="server" Style="width: 100px;
    padding: 5px;"></asp:TextBox>
11            <asp:Button ID="btnLoad" runat="server" Text="Load" OnClick="
    btnLoad_Click" Style="padding: 5px; cursor: pointer;" />
12        </div>
13
14        <div style="margin-bottom: 10px;">
15            <label>Full Name:</label><br />
16            <asp:TextBox ID="txtName" runat="server" Style="width: 100%; padding
    : 5px;" Enabled="false"></asp:TextBox>
17        </div>
18
19        <div style="margin-bottom: 10px;">
20            <label>Address:</label><br />
21            <asp:TextBox ID="txtAddress" runat="server" Style="width: 100%;
    padding: 5px;" Enabled="false"></asp:TextBox>

```

```

22     </div>
23
24     <div style="margin-bottom: 10px;">
25         <label>City:</label><br />
26         <asp:TextBox ID="txtCity" runat="server" Style="width: 100%; padding
: 5px;" Enabled="false"></asp:TextBox>
27     </div>
28
29     <div style="margin-bottom: 10px;">
30         <label>State (2 Letters):</label><br />
31         <asp:TextBox ID="txtState" runat="server" MaxLength="2" Style="width
: 50px; padding: 5px;" Enabled="false"></asp:TextBox>
32     </div>
33
34     <div style="margin-bottom: 10px;">
35         <label>Postal Code:</label><br />
36         <asp:TextBox ID="txtZip" runat="server" Style="width: 100%; padding:
5px;" Enabled="false"></asp:TextBox>
37     </div>
38
39     <div style="margin-top: 20px;">
40         <asp:Button ID="btnUpdate" runat="server" Text="Update Customer"
OnClick="btnUpdate_Click" Style="padding: 10px; cursor: pointer;" Enabled="
false" />
41     </div>
42
43     <br />
44     <asp:Label ID="lblMsg" runat="server"></asp:Label>
45 </div>
46 </asp:Content>

```

## 26 UpdateCustomer.aspx.vb code

```

1 Imports System.Configuration
2 Imports System.Data.SqlClient
3
4 Partial Public Class UpdateCustomer
5     Inherits System.Web.UI.Page
6
7     Protected Sub btnLoad_Click(sender As Object, e As EventArgs) Handles
btnLoad.Click
8
9         Dim connStr As String = ConfigurationManager.ConnectionStrings("
FurnitureDB").ConnectionString
10
11         Try
12             Using con As New SqlConnection(connStr)
13
14                 Dim query As String =
15                     "SELECT CUSTOMER_NAME, CUSTOMER_ADDRESS, CUSTOMER_CITY,
CUSTOMER_STATE, POSTAL_CODE FROM customer_T WHERE CUSTOMER_ID = @Id"
16
17                 Dim cmd As New SqlCommand(query, con)
18                 cmd.Parameters.AddWithValue("@Id", txtCustomerId.Text)
19
20                 con.Open()

```

```

21         Dim reader As SqlDataReader = cmd.ExecuteReader()
22
23         If reader.Read() Then
24             txtName.Text = reader("CUSTOMER_NAME").ToString()
25             txtAddress.Text = reader("CUSTOMER_ADDRESS").ToString()
26             txtCity.Text = reader("CUSTOMER_CITY").ToString()
27             txtState.Text = reader("CUSTOMER_STATE").ToString()
28             txtZip.Text = reader("POSTAL_CODE").ToString()
29
30             txtName.Enabled = True
31             txtAddress.Enabled = True
32             txtCity.Enabled = True
33             txtState.Enabled = True
34             txtZip.Enabled = True
35             btnUpdate.Enabled = True
36
37             lblMsg.ForeColor = Drawing.Color.Green
38             lblMsg.Text = "Customer loaded. Update the fields and click
Update Customer."
39             Else
40                 lblMsg.ForeColor = Drawing.Color.Red
41                 lblMsg.Text = "No customer found with that ID."
42             End If
43
44             reader.Close()
45
46         End Using
47
48         Catch ex As Exception
49
50             lblMsg.ForeColor = Drawing.Color.Red
51             lblMsg.Text = "Error: " & ex.Message
52
53         End Try
54
55     End Sub
56
57     Protected Sub btnUpdate_Click(sender As Object, e As EventArgs) Handles
btnUpdate.Click
58
59         Dim connStr As String = ConfigurationManager.ConnectionStrings("
FurnitureDB").ConnectionString
60
61         Try
62             Using con As New SqlConnection(connStr)
63
64                 Dim query As String =
65                     "UPDATE customer_T SET CUSTOMER_NAME = @Name,
CUSTOMER_ADDRESS = @Address, CUSTOMER_CITY = @City, CUSTOMER_STATE = @State,
POSTAL_CODE = @Zip WHERE CUSTOMER_ID = @Id"
66
67                 Dim cmd As New SqlCommand(query, con)
68                 cmd.Parameters.AddWithValue("@Name", txtName.Text)
69                 cmd.Parameters.AddWithValue("@Address", txtAddress.Text)
70                 cmd.Parameters.AddWithValue("@City", txtCity.Text)
71                 cmd.Parameters.AddWithValue("@State", txtState.Text)
72                 cmd.Parameters.AddWithValue("@Zip", txtZip.Text)
73                 cmd.Parameters.AddWithValue("@Id", txtCustomerId.Text)

```

```

74         con.Open()
75         Dim rowsAffected As Integer = cmd.ExecuteNonQuery()
76
77
78         If rowsAffected > 0 Then
79             lblMsg.ForeColor = Drawing.Color.Green
80             lblMsg.Text = "Customer updated successfully!"
81         Else
82             lblMsg.ForeColor = Drawing.Color.Red
83             lblMsg.Text = "Update failed. No matching customer found."
84         End If
85
86         End Using
87
88         Catch ex As Exception
89
90             lblMsg.ForeColor = Drawing.Color.Red
91             lblMsg.Text = "Error: " & ex.Message
92
93         End Try
94
95     End Sub
96
97 End Class

```

## 27 UpdateCustomer.aspx.designer.vb code

```

1  Option Strict On
2  Option Explicit On
3
4  Partial Public Class UpdateCustomer
5      Protected WithEvents txtCustomerId As Global.System.Web.UI.WebControls.
        TextBox
6      Protected WithEvents btnLoad As Global.System.Web.UI.WebControls.Button
7      Protected WithEvents txtName As Global.System.Web.UI.WebControls.TextBox
8      Protected WithEvents txtAddress As Global.System.Web.UI.WebControls.TextBox
9      Protected WithEvents txtCity As Global.System.Web.UI.WebControls.TextBox
10     Protected WithEvents txtState As Global.System.Web.UI.WebControls.TextBox
11     Protected WithEvents txtZip As Global.System.Web.UI.WebControls.TextBox
12     Protected WithEvents btnUpdate As Global.System.Web.UI.WebControls.Button
13     Protected WithEvents lblMsg As Global.System.Web.UI.WebControls.Label
14 End Class

```