

IAD Lab 07

Code

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Cart.aspx

```
<%@ Page Language="VB" AutoEventWireup="true" CodeFile="Cart.aspx.vb" Inherits="Cart"
%>
<!DOCTYPE html>
<html>
<head runat="server">
  <title>My Cart</title>
  <link rel="stylesheet" href="style.css" />
</head>
<body>
  <form id="form1" runat="server">
    <h2>My Cart</h2>
    <asp:GridView ID="gvCart" runat="server" AutoGenerateColumns="False"
  CssClass="cart-table">
      <Columns>
        <asp:BoundField DataField="Product_Description" HeaderText="Product" />
        <asp:BoundField DataField="Quantity" HeaderText="Quantity" />
        <asp:BoundField DataField="Price" HeaderText="Price" DataFormatString="{0:C}" />
        <asp:BoundField DataField="Total" HeaderText="Total" DataFormatString="{0:C}" />
      </Columns>
    </asp:GridView>
    <br />
    <asp:Label ID="lblGrandTotal" runat="server" Text="" Font-Bold="True"></asp:Label>
    <br /><br />
    <asp:Button ID="btnCheckout" runat="server" Text="Proceed to Checkout"
  PostBackUrl="Payment.aspx" CssClass="btn" />
  </form>
</body>
</html>
```

[Cart.aspx.vb](#)

```
Imports System.Data
Imports System.Data.SqlClient
Imports System.Configuration
```

```
Partial Class Cart
  Inherits System.Web.UI.Page
```

```
  Private connStr As String =
  ConfigurationManager.ConnectionStrings("PVFC").ConnectionString
```

```
Protected Sub Page_Load(sender As Object, e As EventArgs) Handles Me.Load
    If Not IsPostBack Then
        LoadCart()
    End If
End Sub
```

```
Private Sub LoadCart()
```

```
    If Session("Customer_Id") Is Nothing Then
        Response.Redirect("CustomerLogin.aspx")
        Return
    End If
```

```
    Dim customerId As Integer = Convert.ToInt32(Session("Customer_Id"))
```

```
    Using conn As New SqlConnection(connStr)
```

```
        Dim query As String = "SELECT p.Product_Description, " &
            "ol.Ordered_Quantity AS Quantity, " &
            "p.Standard_Price AS Price, " &
            "(ol.Ordered_Quantity * p.Standard_Price) AS Total " &
            "FROM ORDER_t o " &
            "INNER JOIN Order_line_t ol ON o.Order_Id = ol.Order_Id " &
            "INNER JOIN PRODUCT_t p ON ol.Product_Id = p.Product_Id " &
            "WHERE o.Customer_Id = @CustomerId " &
            "AND o.Order_Id = (" &
            "    SELECT MAX(Order_Id) FROM ORDER_t WHERE Customer_Id =
@CustomerId" &
            ")"
```

```
    Using cmd As New SqlCommand(query, conn)
        cmd.Parameters.AddWithValue("@CustomerId", customerId)
```

```
        Dim dt As New DataTable()
```

```
        Using da As New SqlDataAdapter(cmd)
            da.Fill(dt)
        End Using
```

```
        gvCart.DataSource = dt
        gvCart.DataBind()
```

```
        ' Grand total
        Dim grandTotal As Decimal = 0
```

```

        For Each row As DataRow In dt.Rows
            grandTotal += Convert.ToDecimal(row("Total"))
        Next

        lblGrandTotal.Text = "Grand Total: " & grandTotal.ToString("C")
    End Using
End Using

End Sub

End Class

```

CustomerLogin.aspx

```

<%@ Page Language="VB" AutoEventWireup="true" CodeFile="CustomerLogin.aspx.vb"
Inherits="CustomerLogin" %>
<!DOCTYPE html>
<html>
<head runat="server">
    <title>Customer Login</title>
    <link rel="stylesheet" href="style.css" />
</head>
<body>
<form id="form1" runat="server">
<div class="auth-box">
    <h2>Customer Login</h2>
    <asp:TextBox ID="txtUsername" runat="server" Placeholder="Username"></asp:TextBox>
    <asp:TextBox ID="txtPassword" runat="server" TextMode="Password"
Placeholder="Password"></asp:TextBox>
    <asp:Button ID="btnLogin" runat="server" Text="Login" CssClass="btn"
OnClick="btnLogin_Click" />
    <br />
    <asp:Label ID="lblMsg" runat="server" ForeColor="Red"></asp:Label>
    <br />
    <a href="Register.aspx">Don't have an account? Register</a>
</div>
</form>
</body>
</html>

```

[CustomerLogin.aspx.vb](#)

```
Imports System.Configuration
```

```
Imports System.Data
Imports System.Data.SqlClient
```

```
Partial Class CustomerLogin
    Inherits System.Web.UI.Page
```

```
    Protected Sub btnLogin_Click(sender As Object, e As EventArgs) Handles btnLogin.Click
```

```
        ' We declare the connection string here to avoid the "Already Declared" error
```

```
        Dim connStr As String =
```

```
ConfigurationManager.ConnectionStrings("PVFC").ConnectionString
```

```
        Dim query As String = "SELECT Customer_Id, Customer_Name FROM CUSTOMER_t
WHERE Email = @email AND User_Password = @pass"
```

```
        ' Using "Using" blocks is better practice—it closes the connection automatically even if
there's an error
```

```
        Using conn As New SqlConnection(connStr)
```

```
            Using cmd As New SqlCommand(query, conn)
```

```
                ' Use your textboxes for parameters
```

```
                cmd.Parameters.AddWithValue("@email", txtUsername.Text.Trim())
```

```
                cmd.Parameters.AddWithValue("@pass", txtPassword.Text.Trim())
```

```
            Try
```

```
                conn.Open()
```

```
                Dim reader As SqlDataReader = cmd.ExecuteReader()
```

```
            If reader.Read() Then
```

```
                Session("Customer_Id") = reader("Customer_Id")
```

```
                Session("UserName") = reader("Customer_Name").ToString()
```

```
                Session("Role") = "Customer"
```

```
                Response.Redirect("main.aspx")
```

```
            Else
```

```
                lblMsg.Text = "Invalid email or password."
```

```
            End If
```

```
        Catch ex As Exception
```

```
            lblMsg.Text = "Database Error: " & ex.Message
```

```
        End Try
```

```
    End Using
```

```
End Using
```

```
End Sub
```

```
End Class
```

employee_dashboard.aspx

```
<%@ Page Language="VB" AutoEventWireup="true" CodeFile="employee_dashboard.aspx.vb"
Inherits="employee_dashboard" %>
```

```
<!DOCTYPE html>
```

```
<html>
```

```
<head runat="server">
```

```
  <title>Employee Dashboard</title>
```

```
  <link rel="stylesheet" href="style.css" />
```

```
</head>
```

```
<body>
```

```
  <form id="form1" runat="server">
```

```
    <header>
```

```
      <h1>Employee Dashboard</h1>
```

```
    </header>
```

```
    <!-- Navigation Menu -->
```

```
    <nav>
```

```
      <ul>
```

```
        <li>
```

```
          <asp:HyperLink ID="hlUpdateCatalog" runat="server"
```

```
NavigateUrl="update_catalog.aspx" Text="Update Product Catalog" />
```

```
        </li>
```

```
        <li>
```

```
          <asp:HyperLink ID="hlUpdateCustomer" runat="server"
```

```
NavigateUrl="update_customer.aspx" Text="Update Customer" />
```

```
        </li>
```

```
        <li>
```

```
          <asp:HyperLink ID="hlSegmentation" runat="server"
```

```
NavigateUrl="Segmentation.aspx" Text="Customer Segmentation" />
```

```
        </li>
```

```
        <li>
```

```
          <asp:Button ID="btnLogout" runat="server" Text="Logout" CssClass="btn"
```

```
OnClick="btnLogout_Click" />
```

```
        </li>
```

```
      </ul>
```

```
    </nav>
```

```
<div class="container">
  <h2>Welcome, Employee!</h2>
  <p>Select an option from the menu above to proceed.</p>
</div>

</form>
</body>
</html>
```

employee_dashboard.[aspx.vb](#)

Imports System

Imports System.Web.UI

Partial Class employee_dashboard

Inherits System.Web.UI.Page

' Check session on page load

Protected Sub Page_Load(sender As Object, e As EventArgs) Handles Me.Load

 If Session("Role") Is Nothing OrElse Session("Role").ToString() <> "Employee" Then
 Response.Redirect("EmployeeLogin.aspx")

 End If

End Sub

' Logout button click

Protected Sub btnLogout_Click(sender As Object, e As EventArgs)

 Session.Clear()

 Response.Redirect("LoginChoice.aspx")

End Sub

End Class

EmployeeLogin.aspx

```
<%@ Page Language="VB" AutoEventWireup="true" CodeFile="EmployeeLogin.aspx.vb"
```

```
Inherits="EmployeeLogin" %>
```

```
<!DOCTYPE html>
```

```
<html>
```

```
<head runat="server">
```

```
    <title>Employee Login</title>
```

```
    <link rel="stylesheet" href="style.css" />
```

```
</head>
```

```
<body>
```

```

<form id="form1" runat="server">
  <div class="auth-box">
    <h2>Employee Login</h2>
    <asp:TextBox ID="txtEmpID" runat="server" Placeholder="Employee ID"></asp:TextBox>
    <asp:TextBox ID="txtPassword" runat="server" TextMode="Password"
Placeholder="Password"></asp:TextBox>
    <asp:Button ID="btnLogin" runat="server" Text="Login" CssClass="btn"
OnClick="btnLogin_Click" />
    <br />
    <asp:Label ID="lblMsg" runat="server" ForeColor="Red"></asp:Label>
  </div>
</form>
</body>
</html>

```

EmployeeLogin.[aspx.vb](#)

```

Imports System.Data.SqlClient
Imports System.Configuration

```

```

Partial Class EmployeeLogin
  Inherits System.Web.UI.Page

```

```

  Dim connStr As String = ConfigurationManager.ConnectionStrings("PVFC").ConnectionString

```

```

  Protected Sub btnLogin_Click(sender As Object, e As EventArgs) Handles btnLogin.Click
    Using conn As New SqlConnection(connStr)
      Dim query As String = "SELECT Employee_Id, Employee_Name FROM EMPLOYEE_t
WHERE Employee_Id = @EmpID AND User_Password = @Password"
      Using cmd As New SqlCommand(query, conn)
        cmd.Parameters.AddWithValue("@EmpID", txtEmpID.Text.Trim())
        cmd.Parameters.AddWithValue("@Password", txtPassword.Text.Trim())

```

```

        Try
          conn.Open()
          Dim reader As SqlDataReader = cmd.ExecuteReader()
          If reader.Read() Then
            Session("Employee_Id") = reader("Employee_Id")
            Session("Employee_Name") = reader("Employee_Name")
            Session("Role") = "Employee"

```

```

          Response.Redirect("employee_dashboard.aspx")
        Else

```

```
        lblMsg.Text = "Invalid Employee ID or Password."  
    End If  
    Catch ex As Exception  
        lblMsg.Text = "Error: " & ex.Message  
    End Try  
End Using  
End Using  
End Sub  
End Class
```

LoginChoice.aspx

```
<%@ Page Language="VB" AutoEventWireup="true" CodeFile="LoginChoice.aspx.vb"  
Inherits="LoginChoice" %>
```

```
<!DOCTYPE html>  
<html>  
<head runat="server">  
    <title>Login Choice</title>  
    <link rel="stylesheet" href="style.css" />  
</head>  
<body>  
<form id="form1" runat="server">  
  
    <div class="container">  
        <h2>Login As</h2>  
  
        <asp:Button ID="btnEmployee" runat="server" Text="Employee" CssClass="btn"  
OnClick="btnEmployee_Click" />  
        <br /><br />  
  
        <asp:Button ID="btnCustomer" runat="server" Text="Customer" CssClass="btn"  
OnClick="btnCustomer_Click" />  
    </div>  
  
</form>  
</body>  
</html>
```

LoginChoice.[aspx.vb](#)

Partial Class LoginChoice

Inherits System.Web.UI.Page

```
Protected Sub btnEmployee_Click(sender As Object, e As EventArgs)
    Response.Redirect("EmployeeLogin.aspx")
End Sub
```

```
Protected Sub btnCustomer_Click(sender As Object, e As EventArgs)
    Response.Redirect("main.aspx") ' MAIN CUSTOMER WEBSITE
End Sub
```

End Class

main.aspx

```
<%@ Page Language="VB" AutoEventWireup="true" CodeFile="main.aspx.vb" Inherits="_main"
%>
<!DOCTYPE html>
<html>
<head runat="server">
    <title>Pine Valley Furniture</title>
    <link rel="stylesheet" href="style.css" />
</head>
<body>
    <form id="form1" runat="server">

        <header>
            <h1>Pine Valley Furniture</h1>
        </header>

        <nav>
            <ul>
                <li><a href="main.aspx">Home</a></li>
                <li><a href="register.aspx">Customer Registration</a></li>
                <li><a href="search.aspx">Search Products</a></li>
                <li><a href="Cart.aspx">Cart</a></li>
                <li><a href="EmployeeLogin.aspx">Employee Login</a></li>
                <li><a href="help.aspx">Help</a></li>
                <li>
                    <asp:LinkButton ID="btnLogout" runat="server"
                        OnClick="btnLogout_Click">
                        Logout
                    </asp:LinkButton>
                </li>
            </ul>
        </nav>
    </form>
</body>
</html>
```

```
</nav>

<div class="container">
  <h2>Welcome to Pine Valley Furniture</h2>

  <!-- User Label -->
  <asp:Label ID="lblUser" runat="server" Font-Bold="True"></asp:Label>
  <br /><br />

  <asp:HyperLink ID="ShopNowLink" runat="server" NavigateUrl="search.aspx">
    <asp:Button ID="btnShopNow" runat="server"
      Text="Shop Now"
      CssClass="btn" />
  </asp:HyperLink>
</div>

<footer>
  Contact us: 0309-5878126 | Email: pvfc@gmail.com
</footer>

</form>
</body>
</html>
```

[main.aspx.vb](#)

Partial Class _main

Inherits System.Web.UI.Page

Protected Sub Page_Load(sender As Object, e As EventArgs) Handles Me.Load

If Not IsPostBack Then

' If logged in

If Session("Customer_Id") IsNot Nothing Then

lblUser.Text = "Welcome, " & Session("UserName").ToString()

btnLogout.Visible = True

Else

' Guest user

lblUser.Text = "Welcome, Guest"

btnLogout.Visible = False

End If

End If

End Sub

' Logout button

Protected Sub btnLogout_Click(sender As Object, e As EventArgs)

 Session.Clear()

 Session.Abandon()

 Response.Redirect("main.aspx")

End Sub

End Class

payment.aspx

```
<%@ Page Language="VB" AutoEventWireup="true" CodeFile="payment.aspx.vb"
```

```
Inherits="_payment" %>
```

```
<!DOCTYPE html>
```

```
<html>
```

```
<head runat="server">
```

```
    <title>Payment</title>
```

```
    <link rel="stylesheet" href="style.css" />
```

```
</head>
```

```
<body>
```

```
<form id="form1" runat="server">
```

```
<header>
```

```
    <h1>Payment Options</h1>
```

```
</header>
```

```
<div class="container">
```

```
    <asp:RadioButton ID="rbCash" runat="server" GroupName="Payment" Text="Cash on  
Delivery" /><br />
```

```
    <asp:RadioButton ID="rbCard" runat="server" GroupName="Payment" Text="Credit/Debit  
Card" /><br />
```

```
    <asp:RadioButton ID="rbWallet" runat="server" GroupName="Payment" Text="Other Wallet"  
/><br /><br />
```

```
    <asp:Button ID="btnConfirm" runat="server" Text="Confirm Payment" CssClass="btn"  
OnClick="btnConfirm_Click" /><br /><br />
```

```
<asp:Label ID="lblMessage" runat="server" ForeColor="Green"></asp:Label><br /><br />
<asp:HyperLink ID="hiBack" runat="server" NavigateUrl="main.aspx">Back</asp:HyperLink>
</div>

</form>
</body>
</html>
```

payment.[aspx.vb](#)

Partial Class _payment

Inherits System.Web.UI.Page

Protected Sub btnConfirm_Click(sender As Object, e As EventArgs)

 If rbCash.Checked Then

 lblMessage.Text = "Cash on Delivery Selected"

 ElseIf rbCard.Checked Then

 lblMessage.Text = "Credit/Debit Card Selected"

 ElseIf rbWallet.Checked Then

 lblMessage.Text = "Wallet Selected"

 Else

 lblMessage.ForeColor = Drawing.Color.Red

 lblMessage.Text = "Please select a payment method"

 End If

End Sub

End Class

Register.aspx

```
<%@ Page Language="VB" AutoEventWireup="false" CodeFile="Register.aspx.vb"
```

```
Inherits="Register" %>
```

```
<!DOCTYPE html>
```

```
<html>
```

```
<head runat="server">
```

```
    <title>Customer Registration</title>
```

```
    <link href="style.css" rel="stylesheet" />
```

```
</head>
```

```
<body>
```

```
<form id="form1" runat="server">

<header>
  <h1>Pine Valley Furniture - Customer Registration</h1>
</header>

<nav>
  <ul>
    <li><a href="Main.aspx">Home</a></li>
    <li><a href="Register.aspx">Register</a></li>
    <li><a href="Cart.aspx">Cart</a></li>
  </ul>
</nav>

<div class="container">

  <div class="auth-box">

    <h2>New Customer</h2>

    <asp:TextBox ID="txtCustomerId" runat="server"
      CssClass="input-field" placeholder="Customer ID" />
    <br /><br />
    <asp:TextBox ID="txtEmail" runat="server"
      CssClass="input-field" placeholder="Email" />
    <br /><br />

    <asp:TextBox ID="txtPassword" runat="server"
      CssClass="input-field" placeholder="Password"
      TextMode="Password" />
    <br /><br />
    <asp:TextBox ID="txtName" runat="server"
      CssClass="input-field" placeholder="Customer Name" />
    <br /><br />

    <asp:TextBox ID="txtAddress" runat="server"
      CssClass="input-field" placeholder="Address" />
    <br /><br />

    <asp:TextBox ID="txtCity" runat="server"
      CssClass="input-field" placeholder="City" />
    <br /><br />
```

```

<asp:TextBox ID="txtState" runat="server"
    CssClass="input-field" placeholder="State (2 letters)" />
<br /><br />

<asp:TextBox ID="txtPostal" runat="server"
    CssClass="input-field" placeholder="Postal Code" />
<br /><br />

<asp:Button ID="btnSubmit" runat="server"
    Text="Register"
    CssClass="btn"
    OnClick="btnSubmit_Click" />
<br /><br />

<asp:Label ID="lblMessage" runat="server" />

</div>

</div>

</form>
</body>
</html>

```

Register.[aspx.vb](#)

```

Imports System.Data.SqlClient
Imports System.Configuration

```

```

Partial Class Register
    Inherits System.Web.UI.Page

```

```

    Dim connStr As String = ConfigurationManager.ConnectionStrings("PVFC").ConnectionString

```

```

    Protected Sub btnSubmit_Click(sender As Object, e As EventArgs)

```

```

        Using conn As New SqlConnection(connStr)

```

```

            Dim query As String = "INSERT INTO CUSTOMER_t " &
                "(Customer_Id, Customer_Name, Customer_Address, Customer_City,
                Customer_State, Postal_Code, Email, User_Password, Role_Id) " &

```

1)" "VALUES (@Id, @Name, @Address, @City, @State, @Postal, @Email, @Password,

Using cmd As New SqlCommand(query, conn)

```
cmd.Parameters.AddWithValue("@Id", txtCustomerId.Text)
cmd.Parameters.AddWithValue("@Name", txtName.Text)
cmd.Parameters.AddWithValue("@Address", txtAddress.Text)
cmd.Parameters.AddWithValue("@City", txtCity.Text)
cmd.Parameters.AddWithValue("@State", txtState.Text)
cmd.Parameters.AddWithValue("@Postal", txtPostal.Text)
cmd.Parameters.AddWithValue("@Email", txtEmail.Text)
cmd.Parameters.AddWithValue("@Password", txtPassword.Text)
```

Try

```
conn.Open()
cmd.ExecuteNonQuery()
```

```
lblMessage.ForeColor = Drawing.Color.Green
lblMessage.Text = "Customer Registered Successfully!"
```

Catch ex As Exception

```
lblMessage.ForeColor = Drawing.Color.Red
lblMessage.Text = "Error: " & ex.Message
End Try
```

End Using

End Using

End Sub

End Class

search.aspx

```
<%@ Page Language="VB" AutoEventWireup="false" CodeFile="search.aspx.vb"
Inherits="search" %>
```

```
<!DOCTYPE html>
<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
  <title>Search Products - Pine Valley Furniture</title>
  <link rel="stylesheet" href="style.css" />
</head>
<body>
```

```
<form id="form1" runat="server">

<header>
  <h1>Search Products</h1>
</header>

<nav>
  <ul>
    <li><a href="main.aspx">Home</a></li>
    <li><a href="Cart.aspx">Cart</a></li>
  </ul>
</nav>

<div class="container">

  <div style="margin-bottom:20px;">

    <asp:Label Text="Search Product:" runat="server" />

    <asp:TextBox
      ID="txtSearch"
      runat="server"
      style="padding:8px; border-radius:6px; border:1px solid #ccc;">
    </asp:TextBox>

    <asp:Button
      ID="btnSearch"
      runat="server"
      Text="Search"
      CssClass="btn"
      OnClick="btnSearch_Click" />

    <asp:Button
      ID="btnShowAll"
      runat="server"
      Text="Show All"
      CssClass="btn"
      OnClick="btnShowAll_Click" />

  </div>

  <asp:Label ID="lblMessage" runat="server"></asp:Label>
```

```
<br /><br />
```

```
<div class="product-grid">
```

```
    <asp:Repeater ID="rptProducts" runat="server"
    OnItemCommand="rptProducts_ItemCommand">
        <ItemTemplate>
```

```
            <div class="product-card">
```

```
                <div class="image-box"></div>
```

```
                <h3><%# Eval("Product_Description") %></h3>
```

```
                <p>Finish: <%# Eval("Product_Finish") %></p>
```

```
                <p><strong>$ <%# Eval("Standard_Price") %></strong></p>
```

```
                <div style="margin-top:10px;">
```

```
                    Quantity:
```

```
                    <asp:TextBox
```

```
                        ID="txtQty"
```

```
                        runat="server"
```

```
                        Width="50px"
```

```
                        style="padding:5px; border-radius:6px; border:1px solid #ccc;">
```

```
                    </asp:TextBox>
```

```
                </div>
```

```
                <asp:Button
```

```
                    ID="btnAdd"
```

```
                    runat="server"
```

```
                    Text="Add To Cart"
```

```
                    CssClass="btn"
```

```
                    style="margin-top:10px; width:100%;"
```

```
                    CommandName="AddToCart"
```

```
                    CommandArgument='<%# Eval("Product_Id") %>' />
```

```
            </div>
```

```
        </ItemTemplate>
```

```
    </asp:Repeater>
```

```
</div>
```

</div>

</form>

</body>

</html>

search.[aspx.vb](#)

Imports System.Data.SqlClient

Imports System.Configuration

Partial Class search

Inherits System.Web.UI.Page

Dim connStr As String = ConfigurationManager.ConnectionStrings("PVFC").ConnectionString

Protected Sub btnSearch_Click(sender As Object, e As EventArgs)

Dim con As New SqlConnection(connStr)

Dim query As String = "SELECT Product_Id, Product_Description, Product_Finish,
Standard_Price " &
"FROM PRODUCT_t WHERE Product_Description LIKE @search"

Dim cmd As New SqlCommand(query, con)
cmd.Parameters.AddWithValue("@search", "%" & txtSearch.Text & "%")

con.Open()
Dim dr As SqlDataReader = cmd.ExecuteReader()

rptProducts.DataSource = dr
rptProducts.DataBind()

con.Close()

End Sub

Protected Sub btnShowAll_Click(sender As Object, e As EventArgs)

Dim con As New SqlConnection(connStr)

Dim query As String = "SELECT Product_Id, Product_Description, Product_Finish,
Standard_Price FROM PRODUCT_t"

```

Dim cmd As New SqlCommand(query, con)

con.Open()
Dim dr As SqlDataReader = cmd.ExecuteReader()

rptProducts.DataSource = dr
rptProducts.DataBind()

con.Close()

End Sub

Protected Sub rptProducts_ItemCommand(source As Object, e As
RepeaterCommandEventArgs)

If e.CommandName = "AddToCart" Then

    If Session("Customer_Id") Is Nothing Then
        Response.Redirect("CustomerLogin.aspx")
        Exit Sub
    End If

    Dim customerId As Integer = Convert.ToInt32(Session("Customer_Id"))

    Dim productId As Integer = Convert.ToInt32(e.CommandArgument)
    Dim txtQty As TextBox = CType(e.Item.FindControl("txtQty"), TextBox)

    If txtQty.Text = "" Then
        lblMessage.Text = "Enter quantity."
        Exit Sub
    End If

    Dim quantity As Integer = Convert.ToInt32(txtQty.Text)

    Dim con As New SqlConnection(connStr)
    con.Open()

    Dim orderId As Integer = 0

    Dim checkOrderQuery As String =
        "SELECT TOP 1 Order_Id FROM ORDER_t WHERE Customer_Id = @cid AND
Order_Date = CAST(GETDATE() AS DATE)"

```

```

Dim cmdCheckOrder As New SqlCommand(checkOrderQuery, con)
cmdCheckOrder.Parameters.AddWithValue("@cid", customerId)

Dim result = cmdCheckOrder.ExecuteScalar()

If result Is Nothing Then

    ' Create new order
    Dim newIdQuery As String = "SELECT ISNULL(MAX(Order_Id),1000)+1 FROM
ORDER_t"
    Dim cmdNewId As New SqlCommand(newIdQuery, con)
    orderId = Convert.ToInt32(cmdNewId.ExecuteScalar())

    Dim insertOrderQuery As String =
        "INSERT INTO ORDER_t VALUES (@oid, @cid, CAST(GETDATE() AS DATE))"

    Dim cmdInsertOrder As New SqlCommand(insertOrderQuery, con)
    cmdInsertOrder.Parameters.AddWithValue("@oid", orderId)
    cmdInsertOrder.Parameters.AddWithValue("@cid", customerId)

    cmdInsertOrder.ExecuteNonQuery()

Else
    orderId = Convert.ToInt32(result)
End If

' Check if product already exists
Dim checkLineQuery As String =
    "SELECT Ordered_Quantity FROM Order_line_t WHERE Order_Id = @oid AND
Product_Id = @pid"

Dim cmdCheckLine As New SqlCommand(checkLineQuery, con)
cmdCheckLine.Parameters.AddWithValue("@oid", orderId)
cmdCheckLine.Parameters.AddWithValue("@pid", productId)

Dim existingQty = cmdCheckLine.ExecuteScalar()

If existingQty IsNot Nothing Then

    Dim newQty As Integer = Convert.ToInt32(existingQty) + quantity

    Dim updateQuery As String =

```

```
"UPDATE Order_line_t SET Ordered_Quantity = @qty WHERE Order_Id = @oid  
AND Product_Id = @pid"
```

```
Dim cmdUpdate As New SqlCommand(updateQuery, con)  
cmdUpdate.Parameters.AddWithValue("@qty", newQty)  
cmdUpdate.Parameters.AddWithValue("@oid", orderId)  
cmdUpdate.Parameters.AddWithValue("@pid", productId)
```

```
cmdUpdate.ExecuteNonQuery()
```

```
Else
```

```
Dim insertLineQuery As String =  
"INSERT INTO Order_line_t VALUES (@oid, @pid, @qty)"
```

```
Dim cmdInsertLine As New SqlCommand(insertLineQuery, con)  
cmdInsertLine.Parameters.AddWithValue("@oid", orderId)  
cmdInsertLine.Parameters.AddWithValue("@pid", productId)  
cmdInsertLine.Parameters.AddWithValue("@qty", quantity)
```

```
cmdInsertLine.ExecuteNonQuery()
```

```
End If
```

```
con.Close()
```

```
lblMessage.Text = "Product added to YOUR cart!"
```

```
End If
```

```
End Sub
```

```
End Class
```

Segmentation.aspx

```
<%@ Page Language="VB" AutoEventWireup="true" CodeFile="Segmentation.aspx.vb"  
Inherits="Segmentation" %>  
<!DOCTYPE html>  
<html>  
<head runat="server">  
  <title>Customer Segmentation</title>  
  <link rel="stylesheet" href="style.css" />  
</head>
```

```

<body>
<form id="form1" runat="server">
<div class="segment-box">

    <h2>Customer Segmentation Analysis</h2>

    <asp:DropDownList ID="ddlSegment" runat="server" CssClass="segment-dropdown">
        <asp:ListItem Text="Select Segment" Value="" />
        <asp:ListItem Text="Premium Customers" Value="premium" />
        <asp:ListItem Text="Frequent Customers" Value="frequent" />
        <asp:ListItem Text="Bulk Buyers" Value="bulk" />
        <asp:ListItem Text="At-Risk Customers" Value="atrisk" />
        <asp:ListItem Text="Loyal Customers" Value="loyal" />
        <asp:ListItem Text="New Customers" Value="new" />
        <asp:ListItem Text="Show All Segments" Value="all" />
    </asp:DropDownList>

    <asp:Button ID="btnShow" runat="server" Text="Show Segment"
        CssClass="segment-btn" OnClick="btnShow_Click" />

    <br /><br />

    <asp:Label ID="lblMsg" runat="server" ForeColor="Red" />

    <asp:Panel ID="pnlSingleGrid" runat="server">
        <asp:GridView ID="GridView1" runat="server"
            CssClass="segment-grid" AutoGenerateColumns="True" />
    </asp:Panel>

    <asp:Panel ID="pnlAllSegments" runat="server" Visible="False"
        CssClass="all-segments-grid" />

    <asp:Button ID="btnSendVoucher" runat="server"
        Text="Send Discount Voucher to Premium Customers"
        CssClass="segment-btn"
        OnClick="btnSendVoucher_Click" />
</div>
</form>
</body>
</html>

```

Segmentation.[aspx.vb](#)

Imports System.Data

Imports System.Data.SqlClient
Imports System.Configuration

Partial Class Segmentation
Inherits System.Web.UI.Page

Dim connStr As String = ConfigurationManager.ConnectionStrings("PVFC").ConnectionString

Protected Sub Page_Load(sender As Object, e As EventArgs) Handles Me.Load
If Session("Role") Is Nothing OrElse Session("Role").ToString() <> "Employee" Then
Response.Redirect("EmployeeLogin.aspx")
End If
End Sub

Private Function GetSegmentQuery(segment As String) As String

Select Case segment

Case "premium"

Return "SELECT TOP 5 C.Customer_Id, C.Customer_Name, " &
"SUM(OL.Ordered_Quantity * P.Standard_Price) AS TotalSpent " &
"FROM CUSTOMER_t C " &
"JOIN ORDER_t O ON C.Customer_Id = O.Customer_Id " &
"JOIN Order_line_t OL ON O.Order_Id = OL.Order_Id " &
"JOIN PRODUCT_t P ON P.Product_Id = OL.Product_Id " &
"GROUP BY C.Customer_Id, C.Customer_Name ORDER BY TotalSpent DESC"

Case "frequent"

Return "SELECT TOP 5 C.Customer_Id, C.Customer_Name, " &
"COUNT(O.Order_Id) AS TotalOrders " &
"FROM CUSTOMER_t C " &
"JOIN ORDER_t O ON C.Customer_Id = O.Customer_Id " &
"GROUP BY C.Customer_Id, C.Customer_Name " &
"HAVING COUNT(O.Order_Id) > 3 ORDER BY TotalOrders DESC"

Case "bulk"

Return "SELECT TOP 5 C.Customer_Id, C.Customer_Name, " &
"SUM(OL.Ordered_Quantity) AS TotalUnits " &
"FROM CUSTOMER_t C " &
"JOIN ORDER_t O ON C.Customer_Id = O.Customer_Id " &
"JOIN Order_line_t OL ON O.Order_Id = OL.Order_Id " &
"GROUP BY C.Customer_Id, C.Customer_Name " &
"HAVING SUM(OL.Ordered_Quantity) > 15 ORDER BY TotalUnits DESC"

Case "atrisk"

Return "SELECT TOP 5 C.Customer_Id, C.Customer_Name, " &

```
"MAX(O.Order_Date) AS LastOrderDate " &  
"FROM CUSTOMER_t C " &  
"JOIN ORDER_t O ON C.Customer_Id = O.Customer_Id " &  
"GROUP BY C.Customer_Id, C.Customer_Name " &  
"HAVING MAX(O.Order_Date) < DATEADD(YEAR, -1, GETDATE())"
```

Case "loyal"

```
Return "SELECT TOP 5 C.Customer_Id, C.Customer_Name, " &  
"COUNT(DISTINCT O.Order_Id) AS OrderCount " &  
"FROM CUSTOMER_t C " &  
"JOIN ORDER_t O ON C.Customer_Id = O.Customer_Id " &  
"GROUP BY C.Customer_Id, C.Customer_Name " &  
"HAVING COUNT(DISTINCT O.Order_Id) >= 2 ORDER BY OrderCount DESC"
```

Case "new"

```
Return "SELECT TOP 5 C.Customer_Id, C.Customer_Name, " &  
"COUNT(O.Order_Id) AS TotalOrders " &  
"FROM CUSTOMER_t C " &  
"JOIN ORDER_t O ON C.Customer_Id = O.Customer_Id " &  
"GROUP BY C.Customer_Id, C.Customer_Name " &  
"HAVING MIN(O.Order_Date) >= DATEADD(DAY, -60, GETDATE())"
```

End Select

Return ""

End Function

Private Function GetSegmentLabel(segment As String) As String

Select Case segment

Case "premium" : Return "Premium Customers"

Case "frequent" : Return "Frequent Customers"

Case "bulk" : Return "Bulk Buyers"

Case "atrisk" : Return "At-Risk Customers"

Case "loyal" : Return "Loyal Customers"

Case "new" : Return "New Customers"

End Select

Return segment

End Function

Private Function GetSegmentCssClass(segment As String) As String

Select Case segment

Case "premium" : Return "seg-premium"

Case "frequent" : Return "seg-frequent"

Case "bulk" : Return "seg-bulk"

Case "atrisk" : Return "seg-atrisk"

Case "loyal" : Return "seg-loyal"

```
        Case "new" : Return "seg-new"  
    End Select  
    Return ""  
End Function
```

Protected Sub btnShow_Click(sender As Object, e As EventArgs) Handles btnShow.Click

```
    Dim selected As String = ddlSegment.SelectedValue  
    lblMsg.Text = ""  
    pnlAllSegments.Visible = False  
    GridView1.DataSource = Nothing  
    GridView1.DataBind()
```

```
    If selected = "" Then Exit Sub
```

```
    If selected = "all" Then  
        pnlAllSegments.Visible = True  
        pnlSingleGrid.Visible = False  
        pnlAllSegments.Controls.Clear()
```

```
    Dim segments() As String = {"premium", "frequent", "bulk", "atrisk", "loyal", "new"}
```

```
    Using con As New SqlConnection(connStr)  
        con.Open()  
        For Each seg In segments  
            Dim query As String = GetSegmentQuery(seg)  
            If query = "" Then Continue For
```

```
                Dim dt As New DataTable()  
                Using cmd As New SqlCommand(query, con)  
                    Dim da As New SqlDataAdapter(cmd)  
                    da.Fill(dt)  
                End Using
```

```
                Dim openCard As New Literal()  
                openCard.Text = "<div class='seg-card " & GetSegmentCssClass(seg) & "'>"  
                pnlAllSegments.Controls.Add(openCard)
```

```
                Dim lbl As New Label()  
                lbl.CssClass = "segment-section-title"  
                lbl.Text = GetSegmentLabel(seg)  
                pnlAllSegments.Controls.Add(lbl)
```

```
                If dt.Rows.Count = 0 Then
```

```

        Dim noData As New Label()
        noData.CssClass = "segment-no-data"
        noData.Text = "No customers found in this segment."
        pnlAllSegments.Controls.Add(noData)
    Else
        Dim gv As New GridView()
        gv.CssClass = "segment-grid"
        gv.AutoGenerateColumns = True
        gv.DataSource = dt
        gv.DataBind()
        pnlAllSegments.Controls.Add(gv)
    End If

    Dim closeCard As New Literal()
    closeCard.Text = "</div>"
    pnlAllSegments.Controls.Add(closeCard)

Next
End Using

Return
End If

pnlSingleGrid.Visible = True

Dim singleQuery As String = GetSegmentQuery(selected)
If singleQuery = "" Then Exit Sub

Using con As New SqlConnection(connStr)
    Using cmd As New SqlCommand(singleQuery, con)
        Dim da As New SqlDataAdapter(cmd)
        Dim dt As New DataTable()
        da.Fill(dt)

        If dt.Rows.Count = 0 Then
            GridView1.DataSource = Nothing
            GridView1.DataBind()
            lblMsg.Text = "No customers found in this segment."
            Return
        End If

        GridView1.DataSource = dt
        GridView1.DataBind()
    End Using

```

End Using

End Sub

Protected Sub btnSendVoucher_Click(sender As Object, e As EventArgs)

```
If ddlSegment.Selected.Value <> "premium" Then
    lblMsg.Text = "Please select Premium Customers first."
    Return
End If
```

```
Dim query As String = GetSegmentQuery("premium")
```

```
Using con As New SqlConnection(connStr)
    Using cmd As New SqlCommand(query, con)
        Dim da As New SqlDataAdapter(cmd)
        Dim dt As New DataTable()
        da.Fill(dt)
```

```
If dt.Rows.Count = 0 Then
    lblMsg.Text = "No premium customers found."
    Return
End If
```

```
For Each row As DataRow In dt.Rows
    Dim custId As Integer = Convert.ToInt32(row("Customer_Id"))
    Dim custName As String = row("Customer_Name").ToString()
```

```
    Dim voucherCode As String = "DISC10_" & custId
```

```
    System.Diagnostics.Debug.WriteLine("Voucher sent to: " & custName & " Code: " &
voucherCode)
    Next
```

```
    lblMsg.Text = "Discount vouchers (10%) sent to all Premium Customers!"
```

```
End Using
End Using
```

End Sub

End Class

update_catalog.aspx

```
<%@ Page Language="VB" AutoEventWireup="true" CodeFile="update_catalog.aspx.vb"
Inherits="update_catalog" %>
<!DOCTYPE html>
<html>
<head runat="server">
  <title>Update Product Catalog</title>
  <link rel="stylesheet" href="style.css" />
</head>
<body>
<form id="form1" runat="server">

<header>
  <h1>Pine Valley Furniture - Update Catalog</h1>
</header>

<nav>
  <ul>
    <li><a href="employee_dashboard.aspx">Dashboard</a></li>
    <li><a href="update_customer.aspx">Update Customer</a></li>
  </ul>
</nav>

<div class="container">
  <h3>Search Product</h3>
  Product Description:
  <asp:TextBox ID="txtSearch" runat="server" CssClass="input-field" Placeholder="Enter
product description"></asp:TextBox>
  <asp:Button ID="btnSearch" runat="server" Text="Search" CssClass="btn"
OnClick="btnSearch_Click" /><br /><br />

  <h3>Edit Product</h3>
  Product ID: <asp:Label ID="lblProductID" runat="server"></asp:Label><br /><br />
  Line ID: <asp:TextBox ID="txtLineID" runat="server"
CssClass="input-field"></asp:TextBox><br /><br />
  Description: <asp:TextBox ID="txtDesc" runat="server"
CssClass="input-field"></asp:TextBox><br /><br />
  Finish: <asp:TextBox ID="txtFinish" runat="server" CssClass="input-field"></asp:TextBox><br
/><br />
  Price: <asp:TextBox ID="txtPrice" runat="server" CssClass="input-field"></asp:TextBox><br
/><br />
```

```
<asp:Button ID="btnUpdate" runat="server" Text="Update" CssClass="btn"
OnClick="btnConfirm_Click" Enabled="False" /><br /><br />
```

```
<asp:Label ID="lblMessage" runat="server" ForeColor="Green"></asp:Label><br /><br />
</div>
```

```
</form>
```

```
</body>
```

```
</html>
```

update_catalog.aspx.vb

```
Imports System.Data
```

```
Imports System.Data.SqlClient
```

```
Partial Class update_catalog
```

```
    Inherits System.Web.UI.Page
```

```
    Dim connString As String =
```

```
ConfigurationManager.ConnectionStrings("PVFC").ConnectionString
```

```
Protected Sub Page_Load(sender As Object, e As EventArgs) Handles Me.Load
```

```
    ' Only employees allowed
```

```
    If Session("Role") Is Nothing OrElse Session("Role").ToString() <> "Employee" Then
```

```
        Response.Redirect("EmployeeLogin.aspx")
```

```
    End If
```

```
End Sub
```

```
Protected Sub btnSearch_Click(sender As Object, e As EventArgs) Handles btnSearch.Click
```

```
    If txtSearch.Text.Trim() = "" Then
```

```
        Response.Write("<script>alert('Enter a product description');</script>")
```

```
        Return
```

```
    End If
```

```
    Using conn As New SqlConnection(connString)
```

```
        Dim cmd As New SqlCommand("SELECT * FROM PRODUCT_t WHERE
```

```
Product_Description LIKE @desc", conn)
```

```
        cmd.Parameters.AddWithValue("@desc", "%" & txtSearch.Text.Trim() & "%")
```

```
        conn.Open()
```

```
        Dim reader As SqlDataReader = cmd.ExecuteReader()
```

```
    If reader.Read() Then
```

```
        lblProductID.Text = reader("Product_Id").ToString()
```

```
        txtLineID.Text = reader("Product_Line_Id").ToString()
```

```

        txtDesc.Text = reader("Product_Description").ToString()
        txtFinish.Text = reader("Product_Finish").ToString()
        txtPrice.Text = reader("Standard_Price").ToString()
        btnUpdate.Enabled = True
    Else
        lblProductID.Text = ""
        txtLineID.Text = ""
        txtDesc.Text = ""
        txtFinish.Text = ""
        txtPrice.Text = ""
        btnUpdate.Enabled = False
        Response.Write("<script>alert('Product not found');</script>")
    End If
End Using
End Sub

Protected Sub btnConfirm_Click(sender As Object, e As EventArgs) Handles btnUpdate.Click
    If lblProductID.Text = "" Then
        Response.Write("<script>alert('No product selected to update');</script>")
        Return
    End If

    Using conn As New SqlConnection(connString)
        Dim cmd As New SqlCommand("UPDATE PRODUCT_t SET Product_Line_Id=@lineid,
Product_Description=@desc, Product_Finish=@finish, Standard_Price=@price WHERE
Product_Id=@id", conn)
        cmd.Parameters.AddWithValue("@lineid", Convert.ToInt32(txtLineID.Text.Trim()))
        cmd.Parameters.AddWithValue("@desc", txtDesc.Text.Trim())
        cmd.Parameters.AddWithValue("@finish", txtFinish.Text.Trim())
        cmd.Parameters.AddWithValue("@price", Convert.ToDecimal(txtPrice.Text.Trim()))
        cmd.Parameters.AddWithValue("@id", Convert.ToInt32(lblProductID.Text))

        conn.Open()
        cmd.ExecuteNonQuery()
    End Using

    lblMessage.Text = "Product updated successfully!"
End Sub
End Class

```

update_customer.aspx

```

<%@ Page Language="VB" AutoEventWireup="true" CodeFile="update_customer.aspx.vb"
Inherits="update_customer" %>

```

```
<!DOCTYPE html>
<html>
<head runat="server">
  <title>Update Customer</title>
  <link rel="stylesheet" href="style.css" />
</head>

<body>
<form id="form1" runat="server">

<header>
  <h1>Pine Valley Furniture - Update Customer</h1>
</header>

<nav>
  <ul>
    <li><a href="main.aspx">Home</a></li>

    <li><a href="update_catalog.aspx">Update Catalog</a></li>

  </ul>
</nav>

<div class="container">
  <h3>Search Customer</h3>
  Customer ID:

  <asp:TextBox ID="txtCustomerId" runat="server" CssClass="input-field" Placeholder="Enter
Customer ID"></asp:TextBox>
  <asp:Button ID="btnSearch" runat="server" Text="Search" CssClass="btn"
OnClick="btnSearch_Click" /><br /><br />
  <h3>Edit Customer</h3>
  Name:
  <asp:TextBox ID="txtName" runat="server" CssClass="input-field"></asp:TextBox><br /><br
/>
  Address:
  <asp:TextBox ID="txtAddress" runat="server" CssClass="input-field"></asp:TextBox><br
/><br />
  City:
  <asp:TextBox ID="txtCity" runat="server" CssClass="input-field"></asp:TextBox><br /><br />
  State:
  <asp:TextBox ID="txtState" runat="server" CssClass="input-field"></asp:TextBox><br /><br />
  Postal Code:
```

```
<asp:TextBox ID="txtPostal" runat="server" CssClass="input-field"></asp:TextBox><br /><br />
```

```
<asp:Button ID="btnUpdate" runat="server" Text="Update" CssClass="btn"
OnClick="btnUpdate_Click" Enabled="False" /><br /><br />
```

```
<asp:Label ID="lblMessage" runat="server"></asp:Label><br /><br />
<asp:HyperLink NavigateUrl="main.aspx" runat="server">
    Back
</asp:HyperLink>
```

```
</div>
```

```
</form>
```

```
</body>
```

```
</html>
```

update_customer.[aspx.vb](#)

```
Imports System.Configuration
```

```
Imports System.Data.SqlClient
```

```
Partial Class update_customer
```

```
    Inherits System.Web.UI.Page
```

```
    Dim connStr As String = ConfigurationManager.ConnectionStrings("PVFC").ConnectionString
```

```
    Protected Sub Page_Load(sender As Object, e As EventArgs) Handles Me.Load
```

```
        If Session("Role") Is Nothing OrElse Session("Role").ToString() <> "Employee" Then
            Response.Redirect("EmployeeLogin.aspx")
```

```
        End If
```

```
    End Sub
```

```
    ' SEARCH BUTTON
```

```
    Protected Sub btnSearch_Click(sender As Object, e As EventArgs)
```

```
        ' Validate ID
```

```
        If txtCustomerId.Text = "" Then
```

```
            lblMessage.Text = "Please enter Customer ID"
```

```
            Exit Sub
```

```
        End If
```

```
Dim conn As New SqlConnection(connStr)
Dim query As String = "SELECT * FROM CUSTOMER_t WHERE Customer_Id = " &
txtCustomerId.Text
Dim cmd As New SqlCommand(query, conn)
```

```
Try
```

```
    conn.Open()
    Dim reader As SqlDataReader = cmd.ExecuteReader()
```

```
    If reader.Read() Then
```

```
        txtName.Text = reader("Customer_Name").ToString()
        txtAddress.Text = reader("Customer_Address").ToString()
        txtCity.Text = reader("Customer_City").ToString()
        txtState.Text = reader("Customer_State").ToString()
        txtPostal.Text = reader("Postal_Code").ToString()
```

```
        lblMessage.Text = "Customer Found!"
        btnUpdate.Enabled = True ' Allow update now
```

```
    Else
```

```
        lblMessage.Text = "Customer ID does not exist!"
        btnUpdate.Enabled = False
```

```
    End If
```

```
    conn.Close()
```

```
Catch ex As Exception
```

```
    lblMessage.Text = "Error: " & ex.Message
```

```
End Try
```

```
End Sub
```

```
Protected Sub btnUpdate_Click(sender As Object, e As EventArgs)
```

```
    Dim conn As New SqlConnection(connStr)
```

```
    Dim query As String = "UPDATE CUSTOMER_t SET " &
        "Customer_Name = " & txtName.Text & ", " &
        "Customer_Address = " & txtAddress.Text & ", " &
        "Customer_City = " & txtCity.Text & ", " &
        "Customer_State = " & txtState.Text & ", " &
        "Postal_Code = " & txtPostal.Text & " " &
```

```
"WHERE Customer_Id = " & txtCustomerId.Text
```

```
Dim cmd As New SqlCommand(query, conn)
```

```
Try
```

```
    conn.Open()
```

```
    cmd.ExecuteNonQuery()
```

```
    lblMessage.Text = "Customer Updated Successfully!"
```

```
    conn.Close()
```

```
Catch ex As Exception
```

```
    lblMessage.Text = "Error: " & ex.Message
```

```
End Try
```

```
End Sub
```

```
End Class
```