

# Semester Project

## Login.aspx

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

```
<!DOCTYPE html>
```

```
<html xmlns="http://www.w3.org/1999/xhtml">
```

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

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

```
<style>
```

```
body{
```

```
    font-family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;
```

```
    background: #e8f0fe;
```

```
    margin: 0;
```

```
    padding: 0;
```

```
    display: flex;
```

```
    justify-content: center;
```

```
    align-items: center;
```

```
    height: 100vh;
```

```
    color: #333;
```

```
}
```

```
.login-box{
```

```
    background: #ffffff;
```

```
    padding: 35px 40px;
```

```
border-radius: 12px;

box-shadow: 0 8px 25px rgba(100, 100, 150, 0.15);

width: 350px;

text-align: center;

}
```

```
h1 {

margin-bottom: 25px;

color: #2c3e50;

font-weight: 700;

}
```

```
input[type="text"], input[type="password"], input[type="submit"], input[type="button"],
input[type="email"], textarea, select, asp\\:TextBox {

width: 100%;

padding: 10px 12px;

margin: 8px 0 18px 0;

border: 1.5px solid #a8c0ff;

border-radius: 8px;

box-sizing: border-box;

font-size: 1em;

transition: border-color 0.3s ease;

}
```

```
input[type="text"]:focus, input[type="password"]:focus, asp\\:TextBox:focus {

border-color: #5a67d8;
```

```
    outline: none;  
}
```

```
asp\\:Button {  
    background-color: #5a67d8;  
    border: none;  
    color: white;  
    padding: 12px 0;  
    text-align: center;  
    text-decoration: none;  
    display: inline-block;  
    font-size: 1em;  
    margin-top: 10px;  
    border-radius: 25px;  
    cursor: pointer;  
    width: 100%;  
    font-weight: 600;  
    box-shadow: 0 5px 15px rgba(90, 103, 216, 0.4);  
    transition: background-color 0.3s ease;  
}
```

```
asp\\:Button:hover {  
    background-color: #434190;  
}
```

```
#lblMessage {
```

```
margin-bottom: 12px;
display: block;
font-weight: 600;
}
```

```
table.demo-credentials {
    margin: 20px auto 0 auto;
    border-collapse: collapse;
    width: 100%;
    font-size: 0.95em;
    color: #555;
}
```

```
table.demo-credentials th, table.demo-credentials td {
    border: 1px solid #d1d9ff;
    padding: 10px 12px;
    text-align: left;
    background-color: #f9fbff;
}
```

```
table.demo-credentials th {
    background-color: #d1d9ff;
    font-weight: 700;
}
```

```
</style>
```

```
</head>
```

```
<body>

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

    <div class="login-box">

        <h1>Login</h1>

        Username:<br />

        <asp:TextBox ID="txtUsername" runat="server" /><br />

        Password:<br />

        <asp:TextBox ID="txtPassword" runat="server" TextMode="Password" /><br />

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


        <asp:Button ID="btnLogin" runat="server" Text="Login" OnClick="btnLogin_Click" />


    <table class="demo-credentials">

        <thead>

            <tr>

                <th>Username</th>

                <th>Password</th>

            </tr>

        </thead>

        <tbody>

            <tr>

                <td>Noor</td>

                <td>admin123</td>

            </tr>

            <tr>

                <td>Bushra</td>
```

```
        <td>manager123</td>

    </tr>

    <tr>

        <td>Fajar</td>

        <td>viewer123</td>

    </tr>

</tbody>

</table>

</div>

</form>

</body>

</html>
```

## **Login.aspx.vb**

Imports System.Security.Cryptography

Imports System.Text

Imports System.Data.SqlClient

Partial Class Login

Inherits System.Web.UI.Page

Protected Sub btnLogin\_Click(sender As Object, e As EventArgs)

Dim username As String = txtUsername.Text

Dim password As String = txtPassword.Text

Dim hashedPassword As String = ComputeSha256Hash(password)

```
Dim conn As New SqlConnection("Data Source=NoorFatima;Initial  
Catalog=IMS;Integrated Security=True")
```

```
Dim cmd As New SqlCommand("SELECT Role FROM Users WHERE Username=@u  
AND Password=@p", conn)
```

```
cmd.Parameters.AddWithValue("@u", username)
```

```
cmd.Parameters.AddWithValue("@p", hashedPassword)
```

```
conn.Open()
```

```
Dim role = cmd.ExecuteScalar()
```

```
conn.Close()
```

```
If role IsNot Nothing Then
```

```
Session("Username") = username
```

```
Session("Role") = role.ToString()
```

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

```
Else
```

```
lblMessage.Text = "Invalid username or password."
```

```
lblMessage.ForeColor = Drawing.Color.Red
```

```
End If
```

```
End Sub
```

```
Private Function ComputeSha256Hash(rawData As String) As String
```

```
Using sha256Hash As SHA256 = SHA256.Create()
```

```
Dim bytes As Byte() =
```

```
sha256Hash.ComputeHash(Encoding.UTF8.GetBytes(rawData))
```

```
        Return Convert.ToBase64String(bytes)
    End Using
End Function
End Class
```

## **Dashboard.aspx**

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

```
<!DOCTYPE html>
```

```
<html xmlns="http://www.w3.org/1999/xhtml">
```

```
<head>
```

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

```
    <style>
```

```
        body {
```

```
            font-family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;
```

```
            background: #f5f7fa;
```

```
            margin: 0;
```

```
            padding: 0;
```

```
            display: flex;
```

```
            justify-content: center;
```

```
            align-items: center;
```

```
            height: 100vh;
```

```
            color: #333;
```

```
        }
```

```
        .dashboard-container {
```

```
background: #fff;
padding: 40px 50px;
border-radius: 15px;
box-shadow: 0 8px 30px rgba(0,0,0,0.1);
width: 350px;
text-align: center;
}
```

```
h2{
margin-bottom: 15px;
font-weight: 700;
font-size: 1.8em;
color: #4a4a4a;
}
```

```
hr {
margin: 20px 0;
border: none;
border-top: 2px solid #ddd;
}
```

```
a {
display: inline-block;
margin: 10px 0;
padding: 12px 25px;
background: #5a67d8;
```

```
color: white;

text-decoration: none;

font-weight: 600;

border-radius: 30px;

box-shadow: 0 5px 15px rgba(90,103,216,0.4);

transition: background 0.3s ease;

}
```

```
a:hover {

    background: #434190;

}
```

```
</style>
```

```
</head>
```

```
<body>
```

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

```
<h2>Welcome, <% =Session("Username") %>!</h2>
```

```
<hr />
```

```
<% If Session("Role") = "Admin" Or Session("Role") = "Manager" Then %>
```

```
<a href="Products.aspx">Manage Products</a><br />
```

```
<% End If %>
```

```
<% If Session("Role") = "Viewer" Then %>
```

```
<a href="ViewProducts.aspx">View Products</a><br />
```

```
<% End If %>
```

```
<br />
```

```
        <a href="Logout.aspx">Logout</a>
    </div>
</body>
</html>
```

## **Dashboard.aspx.vb**

Partial Class Dashboard

Inherits System.Web.UI.Page

Protected Sub Page\_Load(sender As Object, e As EventArgs) Handles Me.Load

If Session("Username") Is Nothing Then

Response.Redirect("Login.aspx")

End If

End Sub

End Class

## **Product.aspx**

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

```
<!DOCTYPE html>
```

```
<html xmlns="http://www.w3.org/1999/xhtml">
```

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

```
    <title>Product Management</title>
```

```
    <style>
```

```
        body {
```

```
            font-family: Arial;
```

```
            padding: 20px;
```

```
        background-color: #f2f2f2;
    }
    .form-section { margin-bottom: 20px; }
    .label { display: inline-block; width: 120px; }
    .form-control { width: 200px; margin-bottom: 10px; }
    .btn {
        padding: 6px 12px;
        background-color: #4CAF50;
        color: white;
        border: none;
        cursor: pointer;
    }
    .btn:hover {
        background-color: #45a049;
    }
    .message { margin-top: 10px; color: green; }
</style>
</head>
<body>
    <form id="form1" runat="server">
        <h2>Product Management</h2>
        <asp:Label ID="lblWelcome" runat="server" Font-Bold="True"></asp:Label>
        <br /><br />

        <div class="form-section">
```

```
<asp:TextBox ID="txtSearch" runat="server" CssClass="form-control"
Placeholder="Search by product name"></asp:TextBox>
```

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

```
</div>
```

```
<div class="form-section">
```

```
<asp:TextBox ID="productID" runat="server" CssClass="form-control"
Placeholder="Product ID"></asp:TextBox><br />
```

```
<asp:TextBox ID="txtName" runat="server" CssClass="form-control"
Placeholder="Product Name"></asp:TextBox><br />
```

```
<asp:TextBox ID="txtCategory" runat="server" CssClass="form-control"
Placeholder="Category"></asp:TextBox><br />
```

```
<asp:TextBox ID="txtPrice" runat="server" CssClass="form-control"
Placeholder="Price"></asp:TextBox><br />
```

```
<asp:Button ID="btnAdd" runat="server" Text="Add Product" CssClass="btn"
OnClick="btnAdd_Click" />
```

```
</div>
```

```
<asp:GridView ID="gvProducts" runat="server" AutoGenerateColumns="False"
DataKeyNames="ProductID"
```

```
OnRowEditing="gvProducts_RowEditing"
OnRowCancelingEdit="gvProducts_RowCancelingEdit"
```

```
OnRowUpdating="gvProducts_RowUpdating"
OnRowDeleting="gvProducts_RowDeleting"
```

```
CssClass="grid" HeaderStyle-BackColor="#D8D8D8">
```

```
<Columns>
```

```
<asp:BoundField DataField="ProductID" HeaderText="ID" ReadOnly="True" />
```

```
<asp:BoundField DataField="ProductName" HeaderText="Product Name" />
```

```

        <asp:BoundField DataField="Category" HeaderText="Category" />
        <asp:BoundField DataField="Price" HeaderText="Price" DataFormatString="{0:C}"
/>

        <asp:CommandField ShowEditButton="True" ShowDeleteButton="True" />
    </Columns>
</asp:GridView>

    <asp:Label ID="lblMessage" runat="server" CssClass="message"></asp:Label>
</form>
</body>
</html>

```

## **Product.aspx.vb**

Imports System.Data

Imports System.Data.SqlClient

Partial Class Products

Inherits System.Web.UI.Page

Dim connStr As String = "Data Source=NoorFatima;Initial Catalog=IMS;Integrated Security=True"

Dim userRole As String

Protected Sub Page\_Load(ByVal sender As Object, ByVal e As EventArgs) Handles Me.Load

If Session("Role") Is Nothing Then

Response.Redirect("Login.aspx")

End If

```
userRole = Session("Role").ToString()
```

```
lblWelcome.Text = "Welcome, " & Session("Username") & " (" & userRole & ")"
```

```
If Not IsPostBack Then
```

```
    BindGrid()
```

```
    AdjustUI()
```

```
End If
```

```
End Sub
```

```
Private Sub AdjustUI()
```

```
    If userRole = "Viewer" Then
```

```
        btnAdd.Visible = False
```

```
        gvProducts.Columns(gvProducts.Columns.Count - 1).Visible = False
```

```
    ElseIf userRole = "Manager" Then
```

```
        btnAdd.Visible = True
```

```
        gvProducts.Columns(gvProducts.Columns.Count - 1).Visible = True
```

```
    ElseIf userRole = "Admin" Then
```

```
        btnAdd.Visible = True
```

```
        gvProducts.Columns(gvProducts.Columns.Count - 1).Visible = True
```

```
    End If
```

```
End Sub
```

```
Protected Sub BindGrid(Optional ByVal filter As String = "")
```

```
    Dim query As String = "SELECT * FROM Product"
```

```
    If filter <> "" Then
```

```

        query &= " WHERE ProductName LIKE @filter"
    End If

    Using con As New SqlConnection(connStr)
        Using cmd As New SqlCommand(query, con)
            If filter <> "" Then
                cmd.Parameters.AddWithValue("@filter", "%" & filter & "%")
            End If

            Using sda As New SqlDataAdapter(cmd)
                Dim dt As New DataTable()
                sda.Fill(dt)
                gvProducts.DataSource = dt
                gvProducts.DataBind()
            End Using
        End Using
    End Using
End Sub

```

```

Protected Sub btnSearch_Click(sender As Object, e As EventArgs)
    BindGrid(txtSearch.Text.Trim())
End Sub

```

```

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

    If String.IsNullOrEmpty(productID.Text) OrElse Not
IsNumeric(productID.Text.Trim()) Then

```

```
lblMessage.Text = "<span style='color:red; font-size:16px; font-weight:bold;'>Product  
ID cannot be empty and must be a number.</span>"
```

```
Return
```

```
End If
```

```
If String.IsNullOrEmpty(txtName.Text) OrElse IsNumeric(txtName.Text.Trim())  
Then
```

```
lblMessage.Text = "<span style='color:red; font-size:16px; font-weight:bold;'>Product  
Name cannot be empty or a number.</span>"
```

```
Return
```

```
End If
```

```
If String.IsNullOrEmpty(txtCategory.Text) OrElse  
IsNumeric(txtCategory.Text.Trim()) Then
```

```
lblMessage.Text = "<span style='color:red; font-size:16px; font-  
weight:bold;'>Category cannot be empty or a number.</span>"
```

```
Return
```

```
End If
```

```
Dim price As Decimal
```

```
If Not Decimal.TryParse(txtPrice.Text.Trim(), price) OrElse price <= 0 Then
```

```
lblMessage.Text = "<span style='color:red; font-size:16px; font-weight:bold;'>Price  
must be a valid positive number.</span>"
```

```
Return
```

```
End If
```

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

```
Dim cmd As New SqlCommand("INSERT INTO Product (ProductID, ProductName, Category, Price) VALUES (@ProductID, @name, @category, @price)", con)
```

```
cmd.Parameters.AddWithValue("@ProductID", productID.Text.Trim())
```

```
cmd.Parameters.AddWithValue("@name", txtName.Text.Trim())
```

```
cmd.Parameters.AddWithValue("@category", txtCategory.Text.Trim())
```

```
cmd.Parameters.AddWithValue("@price", price)
```

```
con.Open()
```

```
cmd.ExecuteNonQuery()
```

```
con.Close()
```

```
End Using
```

```
productID.Text = ""
```

```
txtName.Text = ""
```

```
txtCategory.Text = ""
```

```
txtPrice.Text = ""
```

```
lblMessage.Text = "<span style='color:green; font-size:16px; font-weight:bold;'>Product added successfully.</span>"
```

```
BindGrid()
```

```
End Sub
```

```
Protected Sub gvProducts_RowEditing(sender As Object, e As GridViewEditEventArgs)
```

```
gvProducts.EditIndex = e.NewEditIndex
```

```
BindGrid()
```

```
End Sub
```

```
Protected Sub gvProducts_RowCancelingEdit(sender As Object, e As  
GridViewCancelEventArgs)
```

```
    gvProducts.EditIndex = -1
```

```
    BindGrid()
```

```
End Sub
```

```
Protected Sub gvProducts_RowUpdating(sender As Object, e As  
GridViewUpdateEventArgs)
```

```
    Dim id As Integer = Convert.ToInt32(gvProducts.DataKeys(e.RowIndex).Value)
```

```
    Dim name As String = CType(gvProducts.Rows(e.RowIndex).Cells(1).Controls(0),  
TextBox).Text
```

```
    Dim category As String = CType(gvProducts.Rows(e.RowIndex).Cells(2).Controls(0),  
TextBox).Text
```

```
    Dim priceText As String = CType(gvProducts.Rows(e.RowIndex).Cells(3).Controls(0),  
TextBox).Text
```

```
If String.IsNullOrEmpty(name) OrElse IsNumeric(name) Then
```

```
    lblMessage.Text = "<span style='color:red; font-size:16px; font-weight:bold;'>Product  
Name cannot be empty or a number.</span>"
```

```
    Return
```

```
End If
```

```
If String.IsNullOrEmpty(category) OrElse IsNumeric(category) Then
```

```
    lblMessage.Text = "<span style='color:red; font-size:16px; font-  
weight:bold;'>Category cannot be empty or a number.</span>"
```

```
    Return
```

```
End If
```

Dim price As Decimal

If Not Decimal.TryParse(priceText, price) OrElse price <= 0 Then

    lblMessage.Text = "<span style='color:red; font-size:16px; font-weight:bold;'>Price must be a valid positive number.</span>"

    Return

End If

Using con As New SqlConnection(connStr)

    Dim cmd As New SqlCommand("UPDATE Product SET ProductName=@name, Category=@category, Price=@price WHERE ProductID=@id", con)

        cmd.Parameters.AddWithValue("@name", name)

        cmd.Parameters.AddWithValue("@category", category)

        cmd.Parameters.AddWithValue("@price", price)

        cmd.Parameters.AddWithValue("@id", id)

    con.Open()

    cmd.ExecuteNonQuery()

    con.Close()

End Using

    lblMessage.Text = "<span style='color:green; font-size:16px; font-weight:bold;'>Product updated successfully.</span>"

gvProducts.EditIndex = -1

BindGrid()

End Sub

```
Protected Sub gvProducts_RowDeleting(sender As Object, e As  
GridViewDeleteEventArgs)
```

```
    If userRole <> "Admin" Then
```

```
        lblMessage.Text = "<span style='color:red; font-size:16px; font-weight:bold;'>Only  
admin can delete products.</span>"
```

```
        Return
```

```
    End If
```

```
    Dim id As Integer = Convert.ToInt32(gvProducts.DataKeys(e.RowIndex).Value)
```

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

```
        Dim cmd As New SqlCommand("DELETE FROM Product WHERE ProductID=@id",  
con)
```

```
        cmd.Parameters.AddWithValue("@id", id)
```

```
        con.Open()
```

```
        cmd.ExecuteNonQuery()
```

```
        con.Close()
```

```
    End Using
```

```
    lblMessage.Text = "<span style='color:green; font-size:16px; font-weight:bold;'>Product  
deleted successfully.</span>"
```

```
    BindGrid()
```

```
End Sub
```

```
End Class
```

**ViewProducts.aspx**

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

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<title>View Products</title>
```

```
<style>
```

```
body{
    font-family: Arial;
    padding: 20px;
    background-color: #f2f2f2;
}
```

```
input[type="text"]{
    width: 200px;
    padding: 5px;
    margin-right: 10px;
}
```

```
.btn {
    padding: 6px 12px;
    background-color: #4CAF50;
    color: white;
    border: none;
    cursor: pointer;
```

```

    }

    .btn:hover {
        background-color: #45a049;
    }
</style>
</head>
<body>
    <form id="form1" runat="server">
        <h2>View Products</h2>

        <asp:Label ID="lblSearch" runat="server" Text="Search Product Name: "></asp:Label>
        <asp:TextBox ID="txtSearch" runat="server" />
        <asp:Button ID="btnSearch" runat="server" Text="Search" CssClass="btn"
OnClick="btnSearch_Click" />
        <br /><br />

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

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

```

## **ViewProducts.aspx.vb**

Imports System

Imports System.Data

Imports System.Data.SqlClient

Partial Class ViewProducts

Inherits System.Web.UI.Page

Protected Sub Page\_Load(ByVal sender As Object, ByVal e As EventArgs) Handles Me.Load

    If Not IsPostBack Then

        LoadProducts("")

    End If

End Sub

Private Sub LoadProducts(Optional ByVal searchTerm As String = "")

    Dim conStr As String = "Data Source=NoorFatima;Initial Catalog=IMS;Integrated Security=True"

    Using conn As New SqlConnection(conStr)

        Dim cmd As New SqlCommand()

        If String.IsNullOrEmpty(searchTerm) Then

            cmd.CommandText = "SELECT \* FROM Product"

        Else

            cmd.CommandText = "SELECT \* FROM Product WHERE ProductName LIKE @SearchTerm"

            cmd.Parameters.AddWithValue("@SearchTerm", "%" & searchTerm & "%")

        End If

        cmd.Connection = conn

        conn.Open()

        Dim reader As SqlDataReader = cmd.ExecuteReader()

```
Dim html As String = "<table border='1' cellpadding='5' cellspacing='0'><tr>" &  
    "<th>ID</th><th>Name</th><th>Price</th><th>Category</th></tr>"
```

```
While reader.Read()
```

```
    html &= "<tr>"
```

```
    html &= "<td>" & reader("ProductID").ToString() & "</td>"
```

```
    html &= "<td>" & reader("ProductName").ToString() & "</td>"
```

```
    html &= "<td>" & reader("Price").ToString() & "</td>"
```

```
    html &= "<td>" & reader("Category").ToString() & "</td>"
```

```
    html &= "</tr>"
```

```
End While
```

```
html &= "</table>"
```

```
lblProducts.Text = html
```

```
reader.Close()
```

```
End Using
```

```
End Sub
```

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

```
    Dim searchTerm As String = txtSearch.Text.Trim()
```

```
    LoadProducts(searchTerm)
```

```
End Sub
```

End Class

## Logout.aspx

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

```
<!DOCTYPE html>
```

```
<html xmlns="http://www.w3.org/1999/xhtml">
```

```
<head>
```

```
<title>Logging out...</title>
```

```
<meta http-equiv="refresh" content="2;url=Login.aspx" />
```

```
<style>
```

```
body{
```

```
    font-family: Arial, sans-serif;
```

```
    background-color: #f4f7fc;
```

```
    color: #34495e;
```

```
    display: flex;
```

```
    justify-content: center;
```

```
    align-items: center;
```

```
    height: 100vh;
```

```
    margin: 0;
```

```
}
```

```
.message-box{
```

```
    background: white;
```

```
    padding: 30px 40px;
```

```
        border-radius: 10px;

        box-shadow: 0 8px 25px rgba(100, 100, 150, 0.15);

        text-align: center;

        font-size: 1.2em;

        font-weight: 600;

    }

</style>

</head>

<body>

    <div class="message-box">

        You are being logged out...<br />

        Redirecting to login page.

    </div>

</body>

</html>
```

## **Logout.aspx.vb**

Partial Class Logout

Inherits System.Web.UI.Page

Protected Sub Page\_Load(ByVal sender As Object, ByVal e As EventArgs) Handles Me.Load

Session.Clear()

Session.Abandon()

End Sub

End Class