

IAD Lab 08

Code

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Login.aspx

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

```
<!DOCTYPE html>
<html>
<head runat="server">
<title>Login</title>
<link rel="stylesheet" href="StyleSheet.css" />
</head>
<body>
<form id="form1" runat="server">
<div class="main-container">
<div class="sidebar">
<div class="logo">QuizApp</div>
<div class="nav-item active">Login</div>
</div>
<div class="content-area">
<div class="card">
<h2>Login</h2>
<div class="input-group">
<label>Email:</label>
<asp:TextBox ID="txtEmail" runat="server" CssClass="form-control"></asp:TextBox>
</div>
<div class="input-group">
<label>Password:</label>
<asp:TextBox ID="txtPassword" runat="server" TextMode="Password"
CssClass="form-control"></asp:TextBox>
</div>
<asp:Button ID="btnLogin" runat="server" Text="Login" OnClick="btnLogin_Click"
CssClass="btn-primary" />
<asp:Label ID="lblMsg" runat="server" CssClass="message"></asp:Label>
</div>
</div>
</div>
</form>
</body>
</html>
```

Login.aspx.vb

Imports System.Data.SqlClient

Imports System.Configuration

Partial Class Login

Inherits System.Web.UI.Page

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

Using con As New

SqlConnection(ConfigurationManager.ConnectionStrings("QuizDB").ConnectionString)

```
Dim query As String = "SELECT UserID, Role " &
    "FROM Users " &
    "WHERE Email=@e AND Password=@p"
```

Using cmd As New SqlCommand(query, con)

cmd.Parameters.AddWithValue("@e", txtEmail.Text.Trim())

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

con.Open()

Using dr As SqlDataReader = cmd.ExecuteReader()

If dr.Read() Then

Session("UserID") = dr("UserID")

Dim userRole As String = dr("Role").ToString()

Session("Role") = userRole

Select Case userRole

Case "Teacher"

Response.Redirect("TeacherDashboard.aspx")

Case "Student"

Response.Redirect("StudentDashboard.aspx")

Case "Admin"

Response.Redirect("AdminDashboard.aspx")

Case Else

lblMsg.Text = "Role not recognized."

End Select

Else

lblMsg.Text = "Invalid email or password."

End If

End Using

End Using

End Using

End Sub
End Class

AdminDashboard.aspx

```
<%@ Page Language="VB" AutoEventWireup="true" CodeFile="AdminDashboard.aspx.vb"
Inherits="AdminDashboard" %>
<!DOCTYPE html>
<html>
<head runat="server">
<title>Admin Dashboard</title>
<link rel="stylesheet" href="StyleSheet.css" />
</head>
<body>
<form id="form1" runat="server">
<div class="main-container">
<div class="sidebar">
<div class="logo">QuizApp</div>
<div class="nav-item active">Dashboard</div>
</div>
<div class="content-area">
<div class="card">
<h1>Admin Dashboard</h1>
<asp:Label ID="lblWelcome" runat="server"></asp:Label>
<hr />
<asp:Button ID="btnScheduleQuiz" runat="server" Text="Schedule Quiz"
OnClick="btnScheduleQuiz_Click" CssClass="btn-primary" />
<br /><br />
<asp:Button ID="btnLogout" runat="server" Text="Logout" OnClick="btnLogout_Click"
CssClass="btn-primary" />
</div>
</div>
</div>
</form>
</body>
</html>
```

AdminDashboard.aspx.vb

Partial Class AdminDashboard
Inherits System.Web.UI.Page

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

```
If Session("Role") <> "Admin" Then
    Response.Redirect("Login.aspx")
End If
```

```
If Not IsPostBack Then
    lblWelcome.Text = "Welcome Admin"
End If
```

```
End Sub
```

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

```
Protected Sub btnLogout_Click(sender As Object, e As EventArgs)
    Session.Abandon()
    Response.Redirect("Login.aspx")
End Sub
```

```
End Class
```

ScheduleQuiz.aspx

```
<%@ Page Language="VB" AutoEventWireup="true" CodeFile="ScheduleQuiz.aspx.vb"
Inherits="ScheduleQuiz" %>
<!DOCTYPE html>
<html>
<head runat="server">
<title>Schedule Quiz</title>
<link rel="stylesheet" href="StyleSheet.css" />
</head>
<body>
<form id="form1" runat="server">
<div class="main-container">
<div class="sidebar">
<div class="logo">QuizApp</div>
<div class="nav-item active">Schedule Quiz</div>
</div>
<div class="content-area">
<div class="card">
<h2>Schedule Quiz</h2>
```

```

<div class="input-group">
<label>Select Quiz:</label>
<asp:DropDownList ID="ddlQuiz" runat="server"
CssClass="form-control"></asp:DropDownList>
</div>
<div class="input-group">
<label>Start Time:</label>
<asp:TextBox ID="txtStart" runat="server" CssClass="form-control"></asp:TextBox>
</div>
<div class="input-group">
<label>End Time:</label>
<asp:TextBox ID="txtEnd" runat="server" CssClass="form-control"></asp:TextBox>
</div>
<asp:Button ID="btnSchedule" runat="server" Text="Schedule" OnClick="btnSchedule_Click"
CssClass="btn-primary" />
<br /><br />
<asp:Label ID="lblMsg" runat="server" CssClass="message"></asp:Label>
</div>
</div>
</div>
</form>
</body>
</html>

```

ScheduleQuiz [.aspx.vb](#)

```

Imports System.Data.SqlClient
Imports System.Configuration

```

```

Partial Class ScheduleQuiz
    Inherits System.Web.UI.Page

```

```

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

```

```

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

        If Not IsPostBack Then
            LoadQuizzes()
        End If

```

End Sub

Sub LoadQuizzes()

Using con As New SqlConnection(connStr)

Dim cmd As New SqlCommand("SELECT QuizID, Title FROM Quiz", con)

con.Open()

ddlQuiz.DataSource = cmd.ExecuteReader()

ddlQuiz.DataTextField = "Title"

ddlQuiz.DataValueField = "QuizID"

ddlQuiz.DataBind()

ddlQuiz.Items.Insert(0, New ListItem("-- Select Quiz --", "0"))

End Using

End Sub

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

If ddlQuiz.SelectedValue = "0" Then

lblMsg.Text = "Please select a quiz first."

lblMsg.ForeColor = Drawing.Color.Red

Return

End If

Using con As New SqlConnection(connStr)

Dim sql As String = "UPDATE Quiz SET StartTime=@s, EndTime=@e WHERE
QuizID=@id"

Dim cmd As New SqlCommand(sql, con)

cmd.Parameters.AddWithValue("@s", DateTime.Parse(txtStart.Text))

cmd.Parameters.AddWithValue("@e", DateTime.Parse(txtEnd.Text))

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

con.Open()

cmd.ExecuteNonQuery()

End Using

lblMsg.Text = "Quiz Scheduled Successfully!"

lblMsg.ForeColor = Drawing.Color.Green

End Sub

End Class

Student_Results.aspx

```
<%@ Page Language="VB" AutoEventWireup="true" CodeFile="Student_Results.aspx.vb"
Inherits="Student_Results" %>
<!DOCTYPE html>
<html>
<head runat="server">
<title>My Results</title>
<link rel="stylesheet" href="StyleSheet.css" />
</head>
<body>
<form id="form1" runat="server">
<div class="main-container">
<div class="sidebar">
<div class="logo">QuizApp</div>
<div class="nav-item active">My Results</div>
</div>
<div class="content-area">
<div class="card">
<h2>My Quiz Results</h2>
<asp:GridView ID="gvResults" runat="server" CssClass="grid-view"></asp:GridView>
</div>
</div>
</div>
</form>
</body>
</html>
```

StudentResults.[aspx.vb](#)

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

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

```
    Dim con As New
    SqlConnection(ConfigurationManager.ConnectionStrings("QuizDB").ConnectionString)
```

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

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

```

        Response.Redirect("Login.aspx")
    End If

    If Not IsPostBack Then
        LoadResults()
    End If

End Sub

Private Sub LoadResults()

    Dim query As String = "SELECT q.Title, " &
        "ISNULL(qa.Score, 0) AS Score, " &
        "qa.StartTime, " &
        "qa.EndTime, " &
        "ISNULL(qa.Status, 'Pending') AS Status " &
        "FROM QuizAttempts qa " &
        "INNER JOIN Quiz q ON qa.QuizID = q.QuizID " &
        "WHERE qa.StudentID = @SID " &
        "ORDER BY qa.StartTime DESC"

    Dim cmd As New SqlCommand(query, con)
    cmd.Parameters.AddWithValue("@SID", Session("UserID"))

    Dim da As New SqlDataAdapter(cmd)
    Dim dt As New DataTable()

    da.Fill(dt)

    gvResults.DataSource = dt
    gvResults.DataBind()

End Sub

End Class

```

Student_TakeQuiz.aspx

```

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

```

```

<!DOCTYPE html>
<html>

```

```

<head runat="server">
  <title>Take Quiz</title>
  <link rel="stylesheet" href="StyleSheet.css" />
</head>

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

<div class="main-container">

  <div class="sidebar">
    <div class="logo">QuizApp</div>
    <div class="nav-item active">Take Quiz</div>
  </div>

  <div class="content-area">
    <div class="card">

      <asp:Label ID="lblQuestion" runat="server" Font-Bold="True"></asp:Label>

      <br /><br />

      <asp:RadioButtonList ID="rblOptions" runat="server"></asp:RadioButtonList>

      <br />

      <asp:Button ID="btnNext" runat="server" Text="Next"
        OnClick="btnNext_Click" CssClass="btn-primary" />

      <asp:Button ID="btnSubmit" runat="server" Text="Submit Quiz"
        OnClick="btnSubmit_Click" CssClass="btn-primary" />

    </div>
  </div>

</div>

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

```

Student_TakeQuiz.[aspx.vb](#)

Imports System.Data

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

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

```
    Dim con As New
    SqlConnection(ConfigurationManager.ConnectionStrings("QuizDB").ConnectionString)
```

```
    Private Property QuestionIndex As Integer
```

```
        Get
```

```
            If Session("qIndex") Is Nothing Then Return 0
```

```
            Return Convert.ToInt32(Session("qIndex"))
```

```
        End Get
```

```
        Set(value As Integer)
```

```
            Session("qIndex") = value
```

```
        End Set
```

```
    End Property
```

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

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

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

```
            Return
```

```
        End If
```

```
        If Not IsPostBack Then
```

```
            If Request.QueryString("QuizID") Is Nothing Then
```

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

```
                Return
```

```
            End If
```

```
            Session("QuizID") = Convert.ToInt32(Request.QueryString("QuizID"))
```

```
            If AlreadyAttempted() Then
```

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

```
                Return
```

```
            End If
```

```
            Dim existingAttemptID As Integer = GetStartedAttemptID()
```

```
            If existingAttemptID > 0 Then
```

```

        Session("AttemptID") = existingAttemptID
        Session("ShuffledQuestions") =
GetAnsweredAndRemainingQuestions(existingAttemptID)
        QuestionIndex = GetAnsweredCount(existingAttemptID)
    Else
        QuestionIndex = 0
        CreateAttempt()
        Session("ShuffledQuestions") = GetShuffledQuestions()
    End If

    LoadQuestion()
End If

End Sub

Private Sub LoadQuestion()

    If Session("ShuffledQuestions") Is Nothing Then
        Response.Redirect("StudentDashboard.aspx")
        Return
    End If

    Dim questions = CType(Session("ShuffledQuestions"), List(Of Integer))

    If questions.Count = 0 Then
        SubmitQuiz()
        Return
    End If

    If QuestionIndex >= questions.Count Then
        SubmitQuiz()
        Return
    End If

    Dim qID As Integer = questions(QuestionIndex)

    Dim cmd As New SqlCommand(
        "SELECT QuestionText FROM Questions WHERE QuestionID=@Q", con)

    cmd.Parameters.AddWithValue("@Q", qID)

    con.Open()
    lblQuestion.Text = Convert.ToString(cmd.ExecuteScalar())
    con.Close()

```

```
Session("CurrentQID") = qID
```

```
LoadOptions(qID)
```

```
End Sub
```

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

```
SaveAnswer()
```

```
QuestionIndex += 1
```

```
LoadQuestion()
```

```
End Sub
```

```
Private Sub SaveAnswer()
```

```
If Session("AttemptID") Is Nothing Then Exit Sub
```

```
If Session("CurrentQID") Is Nothing Then Exit Sub
```

```
If rblOptions.SelectedValue = "" Then Exit Sub
```

```
Dim query As String =
```

```
"IF EXISTS (SELECT 1 FROM Answers WHERE AttemptID=@A AND QuestionID=@Q)  
" &  
"UPDATE Answers SET OptionID=@O WHERE AttemptID=@A AND QuestionID=@Q "  
&  
"ELSE INSERT INTO Answers (AttemptID, QuestionID, OptionID) VALUES  
(@A,@Q,@O)"
```

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

```
cmd.Parameters.AddWithValue("@A", Session("AttemptID"))
```

```
cmd.Parameters.AddWithValue("@Q", Session("CurrentQID"))
```

```
cmd.Parameters.AddWithValue("@O", rblOptions.SelectedValue)
```

```
con.Open()
```

```
cmd.ExecuteNonQuery()
```

```
con.Close()
```

```
End Using
```

```
End Sub
```

```
Private Sub CreateAttempt()
```

```
Dim query As String =  
    "INSERT INTO QuizAttempts (QuizID, StudentID, StartTime, Status) " &  
    "VALUES (@Q, @S, GETDATE(), 'Started'); SELECT SCOPE_IDENTITY();"
```

```
Dim cmd As New SqlCommand(query, con)  
cmd.Parameters.AddWithValue("@Q", Session("QuizID"))  
cmd.Parameters.AddWithValue("@S", Session("UserID"))
```

```
con.Open()  
Dim attemptID As Integer = Convert.ToInt32(cmd.ExecuteScalar())  
con.Close()
```

```
Session("AttemptID") = attemptID
```

End Sub

Private Function GetStartedAttemptID() As Integer

```
Dim query As String =  
    "SELECT AttemptID FROM QuizAttempts " &  
    "WHERE QuizID=@Q AND StudentID=@S AND Status='Started'"
```

```
Dim cmd As New SqlCommand(query, con)  
cmd.Parameters.AddWithValue("@Q", Session("QuizID"))  
cmd.Parameters.AddWithValue("@S", Session("UserID"))
```

```
con.Open()  
Dim result = cmd.ExecuteScalar()  
con.Close()
```

```
If result Is Nothing Then Return 0  
Return Convert.ToInt32(result)
```

End Function

Private Function AlreadyAttempted() As Boolean

```
Dim query As String =  
    "SELECT AttemptID FROM QuizAttempts " &  
    "WHERE QuizID=@Q AND StudentID=@S AND Status='Completed'"
```

```
Dim cmd As New SqlCommand(query, con)  
cmd.Parameters.AddWithValue("@Q", Session("QuizID"))  
cmd.Parameters.AddWithValue("@S", Session("UserID"))
```

```
con.Open()  
Dim result = cmd.ExecuteScalar()  
con.Close()
```

```
Return result IsNot Nothing
```

```
End Function
```

```
Private Function GetAnsweredCount(attemptID As Integer) As Integer
```

```
Dim cmd As New SqlCommand(  
    "SELECT COUNT(*) FROM Answers WHERE AttemptID=@A", con)
```

```
cmd.Parameters.AddWithValue("@A", attemptID)
```

```
con.Open()  
Dim count As Integer = Convert.ToInt32(cmd.ExecuteScalar())  
con.Close()
```

```
Return count
```

```
End Function
```

```
Private Function GetAnsweredAndRemainingQuestions(attemptID As Integer) As List(Of  
Integer)
```

```
Dim list As New List(Of Integer)
```

```
Dim cmd1 As New SqlCommand(  
    "SELECT QuestionID FROM Answers WHERE AttemptID=@A", con)
```

```
cmd1.Parameters.AddWithValue("@A", attemptID)
```

```
con.Open()  
Dim r1 = cmd1.ExecuteReader()  
While r1.Read()  
    list.Add(Convert.ToInt32(r1("QuestionID")))  
End While  
con.Close()
```

```
Dim cmd2 As New SqlCommand(  
    "SELECT QuestionID FROM QuizQuestions WHERE QuizID=@Q", con)
```

```
cmd2.Parameters.AddWithValue("@Q", Session("QuizID"))
```

```
Dim remaining As New List(Of Integer)
```

```
con.Open()
```

```
Dim r2 = cmd2.ExecuteReader()
```

```
While r2.Read()
```

```
    Dim id = Convert.ToInt32(r2("QuestionID"))
```

```
    If Not list.Contains(id) Then
```

```
        remaining.Add(id)
```

```
    End If
```

```
End While
```

```
con.Close()
```

```
Dim rnd As New Random()
```

```
For i = remaining.Count - 1 To 1 Step -1
```

```
    Dim j = rnd.Next(0, i + 1)
```

```
    Dim tmp = remaining(i)
```

```
    remaining(i) = remaining(j)
```

```
    remaining(j) = tmp
```

```
Next
```

```
list.AddRange(remaining)
```

```
Return list
```

```
End Function
```

```
Private Function GetShuffledQuestions() As List(Of Integer)
```

```
    Dim list As New List(Of Integer)
```

```
    Dim cmd As New SqlCommand(
```

```
        "SELECT QuestionID FROM QuizQuestions WHERE QuizID=@Q", con)
```

```
    cmd.Parameters.AddWithValue("@Q", Session("QuizID"))
```

```
    con.Open()
```

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

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

```
        list.Add(Convert.ToInt32(reader("QuestionID")))
```

```
    End While
```

```
    con.Close()
```

```

Dim rnd As New Random()
For i = list.Count - 1 To 1 Step -1
    Dim j = rnd.Next(0, i + 1)
    Dim tmp = list(i)
    list(i) = list(j)
    list(j) = tmp
Next

Return list

End Function

Private Sub LoadOptions(questionID As Integer)

    Dim cmd As New SqlCommand(
        "SELECT OptionID, OptionText FROM QuestionOptions WHERE QuestionID=@Q
ORDER BY NEWID()", con)

    cmd.Parameters.AddWithValue("@Q", questionID)

    Dim dt As New DataTable()
    Dim da As New SqlDataAdapter(cmd)
    da.Fill(dt)

    rblOptions.DataSource = dt
    rblOptions.DataTextField = "OptionText"
    rblOptions.DataValueField = "OptionID"
    rblOptions.DataBind()

End Sub

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

Private Sub SubmitQuiz()

    SaveAnswer()

    Dim query As String =
        "UPDATE QuizAttempts SET EndTime=GETDATE(), Status='Completed', " &
        "Score=(SELECT COUNT(*) FROM Answers a INNER JOIN QuestionOptions o " &

```

```
"ON a.OptionID=o.OptionID WHERE a.AttemptID=@A AND o.IsCorrect=1) " &  
"WHERE AttemptID=@A"
```

```
Dim cmd As New SqlCommand(query, con)  
cmd.Parameters.AddWithValue("@A", Session("AttemptID"))
```

```
con.Open()  
cmd.ExecuteNonQuery()  
con.Close()
```

```
Dim attemptID As Integer = Convert.ToInt32(Session("AttemptID"))
```

```
Session.Remove("QuizID")  
Session.Remove("AttemptID")  
Session.Remove("ShuffledQuestions")  
Session.Remove("CurrentQID")  
Session.Remove("qIndex")
```

```
Response.Redirect("Student_Results.aspx?AttemptID=" & attemptID)
```

```
End Sub
```

```
End Class
```

StudentDashboard.aspx

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

```
<!DOCTYPE html>  
<html>  
<head runat="server">  
<title>Student Dashboard</title>  
<link rel="stylesheet" href="StyleSheet.css" />  
</head>
```

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

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

```
<div class="sidebar">  
  <div class="logo">QuizApp</div>  
  <div class="nav-item active">Dashboard</div>
```

```
</div>
```

```
<div class="content-area">
```

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

```
<h1>Student Dashboard</h1>
```

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

```
<hr />
```

```
<h3>Available Subjects</h3>
```

```
<asp:GridView ID="gvSubjects" runat="server" AutoGenerateColumns="False"
CssClass="grid-view">
```

```
<Columns>
```

```
<asp:BoundField DataField="SubjectName" HeaderText="Subject" />
```

```
</Columns>
```

```
</asp:GridView>
```

```
<br />
```

```
<h3>Available Quizzes</h3>
```

```
<asp:Label ID="lblNoQuiz" runat="server" ForeColor="Gray"
Font-Italic="True"></asp:Label>
```

```
<asp:GridView ID="gvQuizzes" runat="server" AutoGenerateColumns="False"
OnRowCommand="gvQuizzes_RowCommand"
OnRowDataBound="gvQuizzes_RowDataBound"
CssClass="grid-view">
```

```
<Columns>
```

```
<asp:BoundField DataField="SubjectName" HeaderText="Subject" />
```

```
<asp:BoundField DataField="Title" HeaderText="Quiz Title" />
```

```
<asp:BoundField DataField="TotalQuestions" HeaderText="Questions" />
```

```
<asp:BoundField DataField="TotalTime" HeaderText="Time (min)" />
```

```
<asp:TemplateField HeaderText="Schedule">
```

```
<ItemTemplate>
```

```
<b>From:</b>
```

```
tt")) %>
        <%# If(IsDBNull(Eval("StartTime")), "Not Scheduled",
            Convert.ToDateTime(Eval("StartTime")).ToString("dd MMM hh:mm
```

```
<br />
```

```
tt")) %>
        <b>To:</b>
        <%# If(IsDBNull(Eval("EndTime")), "Not Scheduled",
            Convert.ToDateTime(Eval("EndTime")).ToString("dd MMM hh:mm
```

```

    </ItemTemplate>
</asp:TemplateField>

<asp:TemplateField HeaderText="Status">
    <ItemTemplate>
        <asp:Label ID="lblStatus" runat="server"></asp:Label>
    </ItemTemplate>
</asp:TemplateField>

<asp:TemplateField>
    <ItemTemplate>
        <asp:Button ID="btnAttempt" runat="server"
            Text="Attempt"
            CommandName="AttemptQuiz"
            CommandArgument='<%# Eval("QuizID") %>' />
    </ItemTemplate>
</asp:TemplateField>
```

```
</Columns>
```

```
</asp:GridView>
```

```
<br />
```

```
<asp:Button ID="btnViewResults" runat="server"
    Text="View My Results"
    OnClick="btnViewResults_Click"
    CssClass="btn-primary" />
```

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

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

```
        OnClick="btnLogout_Click"
        CssClass="btn-primary" />

</div>

</div>

</div>

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

StudentDashboard.[aspx.vb](#)

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

Partial Class StudentDashboard
    Inherits System.Web.UI.Page

    Dim con As New
    SqlConnection(ConfigurationManager.ConnectionStrings("QuizDB").ConnectionString)

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

        If Session("Role") <> "Student" Then
            Response.Redirect("Login.aspx")
        End If

        If Not IsPostBack Then
            lblWelcome.Text = "Welcome Student ID: " & Session("UserID")
            LoadSubjects()
            LoadQuizzes()
        End If

    End Sub

    Private Sub LoadSubjects()

        Dim cmd As New SqlCommand("SELECT SubjectID, SubjectName FROM Subjects", con)
        Dim da As New SqlDataAdapter(cmd)
        Dim dt As New DataTable()
```

```
da.Fill(dt)
```

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

```
End Sub
```

```
Private Sub LoadQuizzes()
```

```
Dim query As String =
```

```
"SELECT q.QuizID, q.Title, q.TotalQuestions, q.TotalTime, " &
```

```
"q.StartTime, q.EndTime, s.SubjectName " &
```

```
"FROM Quiz q " &
```

```
"INNER JOIN Subjects s ON q.SubjectID = s.SubjectID " &
```

```
"WHERE q.QuizID NOT IN (SELECT QuizID FROM QuizAttempts WHERE StudentID =  
@SID)"
```

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

```
cmd.Parameters.AddWithValue("@SID", Session("UserID"))
```

```
Dim da As New SqlDataAdapter(cmd)
```

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

```
da.Fill(dt)
```

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

```
lblNoQuiz.Text = If(dt.Rows.Count = 0, "No quizzes available.", "")
```

```
End Sub
```

```
Protected Sub gvQuizzes_RowDataBound(sender As Object, e As GridViewRowEventArgs)  
Handles gvQuizzes.RowDataBound
```

```
If e.Row.RowType = DataControlRowType.DataRow Then
```

```
Dim btn As Button = CType(e.Row.FindControl("btnAttempt"), Button)
```

```
Dim lbl As Label = CType(e.Row.FindControl("lblStatus"), Label)
```

```
Dim startObj = DataBinder.Eval(e.Row.DataItem, "StartTime")
```

```
Dim endObj = DataBinder.Eval(e.Row.DataItem, "EndTime")
```

```
If IsDBNull(startObj) Or IsDBNull(endObj) Then
    btn.Enabled = False
    btn.Text = "Not Scheduled"
    lbl.Text = "Pending"
    Return
End If
```

```
Dim startTime As DateTime = Convert.ToDateTime(startObj)
Dim endTime As DateTime = Convert.ToDateTime(endObj)
```

```
If DateTime.Now < startTime Then
    btn.Enabled = False
    btn.Text = "Starts Soon"
    lbl.Text = "Upcoming"
```

```
Elseif DateTime.Now > endTime Then
    btn.Enabled = False
    btn.Text = "Expired"
    lbl.Text = "Closed"
```

```
Else
    btn.Enabled = True
    btn.Text = "Attempt"
    lbl.Text = "Active"
End If
```

```
End If
```

```
End Sub
```

```
Protected Sub gvQuizzes_RowCommand(sender As Object, e As
GridViewCommandEventArgs)
```

```
If e.CommandName = "AttemptQuiz" Then
```

```
    Dim quizID As Integer = Convert.ToInt32(e.CommandArgument)
```

```
    Session("QuizID") = quizID
```

```
    Response.Redirect("Student_TakeQuiz.aspx?QuizID=" & quizID)
```

```
End If
```

```
End Sub
```

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

```
Protected Sub btnLogout_Click(sender As Object, e As EventArgs)
    Session.Abandon()
    Response.Redirect("Login.aspx")
End Sub
```

End Class

Teacher_AddQuestions.aspx

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

<!DOCTYPE html>
<html>
<head runat="server">
    <title>Teacher - Add Questions</title>
    <link rel="stylesheet" href="StyleSheet.css" />
    <style>
        .form-group { margin-bottom: 15px; }
        label { display: inline-block; width: 130px; font-weight: bold; }
        .success-msg { color: #28a745; font-weight: bold; padding: 10px; background: #e9f7ef;
border-radius: 4px; display: block; margin-bottom: 15px; }
        .error-msg { color: #dc3545; font-weight: bold; padding: 10px; background: #fdf2f2;
border-radius: 4px; display: block; margin-bottom: 15px; }
        fieldset { border: 1px solid #ddd; padding: 15px; border-radius: 8px; margin: 10px 0; }
    </style>
</head>
<body>
    <form id="form1" runat="server">
        <div class="main-container">
            <div class="sidebar">
                <div class="logo">QuizApp</div>
                <div class="nav-item active">Add Questions</div>
            </div>
            <div class="content-area">
                <div class="card">
                    <h2>Create New Question</h2>
                    <hr />
                </div>
            </div>
        </div>
    </form>
</body>
</html>
```

```

<%-- Success/Error Message Label --%>
<asp:Label ID="lblMsg" runat="server" Visible="false"></asp:Label>

<div class="form-group">
  <label>Subject:</label>
  <asp:DropDownList ID="ddlSubject" runat="server"></asp:DropDownList>
</div>

<div class="form-group">
  <label>Question Type:</label>
  <asp:DropDownList ID="ddlType" runat="server" AutoPostBack="true"
OnSelectedIndexChanged="ddlType_SelectedIndexChanged">
    <asp:ListItem Value="MCQ">Multiple Choice (4 Options)</asp:ListItem>
    <asp:ListItem Value="TF">True / False</asp:ListItem>
  </asp:DropDownList>
</div>

<div class="form-group">
  <label>Difficulty:</label>
  <asp:DropDownList ID="ddlDifficulty" runat="server">
    <asp:ListItem Value="1">Easy</asp:ListItem>
    <asp:ListItem Value="2">Medium</asp:ListItem>
    <asp:ListItem Value="3">Hard</asp:ListItem>
  </asp:DropDownList>
</div>

<div class="form-group">
  <label>Question:</label><br />
  <asp:TextBox ID="txtQ" runat="server" TextMode="MultiLine" Rows="3"
Width="100%" placeholder="Enter your question here..."></asp:TextBox>
</div>

<fieldset>
  <legend>Options</legend>
  <div class="form-group">
    <label id="lblA" runat="server">Option A:</label>
    <asp:TextBox ID="txtA" runat="server" Width="300px"></asp:TextBox>
  </div>
  <div class="form-group">
    <label id="lblB" runat="server">Option B:</label>
    <asp:TextBox ID="txtB" runat="server" Width="300px"></asp:TextBox>
  </div>

  <asp:Panel ID="pnlExtraOptions" runat="server">

```

```

        <div class="form-group">
            <label>Option C:</label>
            <asp:TextBox ID="txtC" runat="server" Width="300px"></asp:TextBox>
        </div>
        <div class="form-group">
            <label>Option D:</label>
            <asp:TextBox ID="txtD" runat="server" Width="300px"></asp:TextBox>
        </div>
    </asp:Panel>
</fieldset>

<div class="form-group">
    <label>Correct Answer:</label>
    <asp:DropDownList ID="ddlCorrect" runat="server">
        <asp:ListItem Value="A">A</asp:ListItem>
        <asp:ListItem Value="B">B</asp:ListItem>
        <asp:ListItem Value="C" ID="liC">C</asp:ListItem>
        <asp:ListItem Value="D" ID="liD">D</asp:ListItem>
    </asp:DropDownList>
</div>

    <asp:Button ID="btnAdd" runat="server" Text="Save Question"
OnClick="btnAdd_Click" CssClass="btn-primary" />
    </div>
</div>
</div>
</form>
</body>
</html>

```

Teacher_AddQuestions.[aspx.vb](#)

```

Imports System.Data
Imports System.Data.SqlClient
Imports System.Web.Configuration

```

```

Partial Class Teacher_AddQuestions
    Inherits System.Web.UI.Page

```

```

    Dim connStr As String =
WebConfigurationManager.ConnectionStrings("QuizDB").ConnectionString

```

```

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

```

```

If Session("UserID") Is Nothing Then Response.Redirect("Login.aspx")

If Not IsPostBack Then
    LoadSubjects()
End If
End Sub

Sub LoadSubjects()
    Using con As New SqlConnection(connStr)
        Dim cmd As New SqlCommand("SELECT SubjectID, SubjectName FROM Subjects",
con)
        con.Open()
        ddlSubject.DataSource = cmd.ExecuteReader()
        ddlSubject.DataTextField = "SubjectName"
        ddlSubject.DataValueField = "SubjectID"
        ddlSubject.DataBind()
    End Using
End Sub

Protected Sub ddlType_SelectedIndexChanged(sender As Object, e As EventArgs)
    lblMsg.Visible = False
    If ddlType.SelectedValue = "TF" Then
        pnlExtraOptions.Visible = False
        liC.Enabled = False
        liD.Enabled = False
        txtA.Text = "True"
        txtB.Text = "False"
        lblA.InnerText = "Option A (True):"
        lblB.InnerText = "Option B (False):"
    Else
        pnlExtraOptions.Visible = True
        liC.Enabled = True
        liD.Enabled = True
        txtA.Text = ""
        txtB.Text = ""
        lblA.InnerText = "Option A:"
        lblB.InnerText = "Option B:"
    End If
End Sub

Protected Sub btnAdd_Click(sender As Object, e As EventArgs)
    Try
        Using con As New SqlConnection(connStr)
            con.Open()

```

```
Dim sqlQ As String = "INSERT INTO Questions (SubjectID, TeacherID, QuestionText,
DifficultyLevel) VALUES (@sid, @tid, @q, @diff); SELECT SCOPE_IDENTITY();"
Dim qid As Integer
```

```
Using cmd As New SqlCommand(sqlQ, con)
    cmd.Parameters.AddWithValue("@sid", ddlSubject.SelectedValue)
    cmd.Parameters.AddWithValue("@tid", Session("UserID"))
    cmd.Parameters.AddWithValue("@q", txtQ.Text.Trim())
    cmd.Parameters.AddWithValue("@diff", ddlDifficulty.SelectedValue)
    qid = Convert.ToInt32(cmd.ExecuteScalar())
End Using
```

```
InsertOption(con, qid, txtA.Text.Trim(), ddlCorrect.SelectedValue = "A")
InsertOption(con, qid, txtB.Text.Trim(), ddlCorrect.SelectedValue = "B")
```

```
If ddlType.SelectedValue = "MCQ" Then
    InsertOption(con, qid, txtC.Text.Trim(), ddlCorrect.SelectedValue = "C")
    InsertOption(con, qid, txtD.Text.Trim(), ddlCorrect.SelectedValue = "D")
End If
End Using
```

```
lblMsg.Text = "Question added successfully!"
lblMsg.CssClass = "success-msg"
lblMsg.Visible = True
ClearFields()
```

```
Catch ex As Exception
    lblMsg.Text = "Error: " & ex.Message
    lblMsg.CssClass = "error-msg"
    lblMsg.Visible = True
End Try
End Sub
```

```
Sub InsertOption(con As SqlConnection, qid As Integer, text As String, isCorrect As Boolean)
    Dim sqlOpt As String = "INSERT INTO QuestionOptions (QuestionID, OptionText,
IsCorrect) VALUES (@qid, @text, @correct)"
    Using cmd As New SqlCommand(sqlOpt, con)
        cmd.Parameters.AddWithValue("@qid", qid)
        cmd.Parameters.AddWithValue("@text", text)
        cmd.Parameters.AddWithValue("@correct", If(isCorrect, 1, 0))
        cmd.ExecuteNonQuery()
    End Using
End Sub
```

```

Sub ClearFields()
    txtQ.Text = ""
    If ddlType.SelectedValue = "MCQ" Then
        txtA.Text = ""
        txtB.Text = ""
    End If
    txtC.Text = ""
    txtD.Text = ""
End Sub
End Class

```

Teacher_CreateQuiz.aspx

```

<%@ Page Language="VB" AutoEventWireup="true" CodeFile="Teacher_CreateQuiz.aspx.vb"
Inherits="Teacher_CreateQuiz" %>
<!DOCTYPE html>
<html>
<head runat="server">
<title>Create Quiz</title>
<link rel="stylesheet" href="StyleSheet.css" />
</head>
<body>
<form id="form1" runat="server">
<div class="main-container">
<div class="sidebar">
<div class="logo">QuizApp</div>
<div class="nav-item active">Create Quiz</div>
</div>
<div class="content-area">
<div class="card">
<h2>Create Quiz</h2>
<div class="input-group">
<label>Subject:</label>
<asp:DropDownList ID="ddlSubject" runat="server" AutoPostBack="true"
OnSelectedIndexChanged="ddlSubject_SelectedIndexChanged"
CssClass="form-control"></asp:DropDownList>
</div>
<div class="input-group">
<label>Title:</label>
<asp:TextBox ID="txtTitle" runat="server" CssClass="form-control"></asp:TextBox>
</div>
<div class="input-group">
<label>Time (minutes):</label>

```

```

<asp:TextBox ID="txtTime" runat="server" CssClass="form-control"></asp:TextBox>
</div>
<asp:CheckBoxList ID="cblQuestions" runat="server"></asp:CheckBoxList>
<br />
<asp:Button ID="btnCreate" runat="server" Text="Create Quiz" OnClick="btnCreate_Click"
  CssClass="btn-primary" />
<br /><br />
<asp:Label ID="lblMsg" runat="server" CssClass="message"></asp:Label>
</div>
</div>
</div>
</form>
</body>
</html>

```

Teacher_CreateQuiz.[aspx.vb](#)

```

Imports System.Data.SqlClient
Imports System.Configuration

```

```

Partial Class Teacher_CreateQuiz
  Inherits System.Web.UI.Page

```

```

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

```

```

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

```

```

    If Not IsPostBack Then
      LoadSubjects()
    End If

```

```

  End Sub

```

```

  Sub LoadSubjects()
    Using con As New SqlConnection(connStr)
      Dim cmd As New SqlCommand("SELECT SubjectID, SubjectName FROM Subjects",
con)
      con.Open()
      ddlSubject.DataSource = cmd.ExecuteReader()
      ddlSubject.DataTextField = "SubjectName"
      ddlSubject.DataValueField = "SubjectID"
      ddlSubject.DataBind()

```

```
        ddlSubject.Items.Insert(0, New ListItem("-- Select Subject --", "0"))
    End Using
End Sub
```

```
Protected Sub ddlSubject_SelectedIndexChanged(sender As Object, e As EventArgs)
Handles ddlSubject.SelectedIndexChanged
    Using con As New SqlConnection(connStr)
        Dim sql As String = "SELECT QuestionID, QuestionText FROM Questions WHERE
SubjectID=@sid"
        Dim cmd As New SqlCommand(sql, con)
        cmd.Parameters.AddWithValue("@sid", ddlSubject.SelectedValue)

        con.Open()
        cblQuestions.DataSource = cmd.ExecuteReader()
        cblQuestions.DataTextField = "QuestionText"
        cblQuestions.DataValueField = "QuestionID"
        cblQuestions.DataBind()
    End Using
End Sub
```

```
Protected Sub btnCreate_Click(sender As Object, e As EventArgs)
    Dim quizId As Integer
    Dim selectedCount As Integer = 0

    For Each item As ListItem In cblQuestions.Items
        If item.Selected Then selectedCount += 1
    Next

    If selectedCount = 0 Then
        lblMsg.Text = "Please select at least one question."
        lblMsg.ForeColor = Drawing.Color.Red
        Return
    End If
```

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

        Dim sqlQuiz As String = "INSERT INTO Quiz " &
            "(SubjectID, TeacherID, Title, TotalQuestions, TotalTime, RandomizeQuestions,
ShuffleOptions) " &
            "VALUES (@sid, @tid, @title, @totalQ, @time, 1, 1); " &
            "SELECT SCOPE_IDENTITY();"

        Dim cmd As New SqlCommand(sqlQuiz, con)
```

```

cmd.Parameters.AddWithValue("@sid", ddlSubject.SelectedValue)
cmd.Parameters.AddWithValue("@tid", Session("UserID"))
cmd.Parameters.AddWithValue("@title", txtTitle.Text)
cmd.Parameters.AddWithValue("@totalQ", selectedCount)
cmd.Parameters.AddWithValue("@time", txtTime.Text)

quizId = Convert.ToInt32(cmd.ExecuteScalar())

Dim order As Integer = 1
For Each item As ListItem In cblQuestions.Items
    If item.Selected Then
        Dim sqlMapping As String = "INSERT INTO QuizQuestions (QuizID, QuestionID,
QuestionOrder) " &
            "VALUES (@qid, @questionId, @ord)"

        Using qCmd As New SqlCommand(sqlMapping, con)
            qCmd.Parameters.AddWithValue("@qid", quizId)
            qCmd.Parameters.AddWithValue("@questionId", item.Value)
            qCmd.Parameters.AddWithValue("@ord", order)
            qCmd.ExecuteNonQuery()
        End Using
        order += 1
    End If
Next
End Using

lblMsg.Text = "Quiz Created Successfully!"
lblMsg.ForeColor = Drawing.Color.Green
End Sub
End Class

```

TeacherDashboard.aspx

```

<%@ Page Language="VB" AutoEventWireup="true" CodeFile="TeacherDashboard.aspx.vb"
Inherits="TeacherDashboard" %>
<!DOCTYPE html>
<html>
<head runat="server">
<title>Teacher Dashboard</title>
<link rel="stylesheet" href="StyleSheet.css" />
</head>
<body>
<form id="form1" runat="server">
<div class="main-container">

```

```

<div class="sidebar">
<div class="logo">QuizApp</div>
<div class="nav-item active">Dashboard</div>
</div>
<div class="content-area">
<div class="card">
<h1>Teacher Dashboard</h1>
<asp:Label ID="lblWelcome" runat="server"></asp:Label>
<hr />
<asp:Button ID="btnAddQuestion" runat="server" Text="Add Questions"
OnClick="btnAddQuestion_Click" CssClass="btn-primary" />
<br /><br />
<asp:Button ID="btnCreateQuiz" runat="server" Text="Create Quiz"
OnClick="btnCreateQuiz_Click" CssClass="btn-primary" />
<br /><br />
<asp:Button ID="btnLogout" runat="server" Text="Logout" OnClick="btnLogout_Click"
CssClass="btn-primary" />
</div>
</div>
</div>
</div>
</form>
</body>
</html>

```

TeacherDashboard.[aspx.vb](#)

Partial Class TeacherDashboard
Inherits System.Web.UI.Page

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

```

If Session("Role") <> "Teacher" Then
    Response.Redirect("Login.aspx")
End If

```

```

If Not IsPostBack Then
    lblWelcome.Text = "Welcome Teacher ID: " & Session("UserID")
End If

```

End Sub

```

Protected Sub btnAddQuestion_Click(sender As Object, e As EventArgs)
    Response.Redirect("Teacher_AddQuestions.aspx")
End Sub

```

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

```
Protected Sub btnLogout_Click(sender As Object, e As EventArgs)
    Session.Abandon()
    Response.Redirect("Login.aspx")
End Sub
```

```
End Class
```

StyleSheet

```
body {
    margin: 0;
    padding: 0;
    font-family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;
    background-color: #6a5acd;
    height: 100vh;
    display: flex;
    justify-content: center;
    align-items: center;
}
```

```
.main-container {
    display: flex;
    width: 95%;
    max-width: 1200px;
    height: 80vh;
    background-color: #f8f9fa;
    border-radius: 20px;
    overflow: hidden;
    box-shadow: 0 10px 30px rgba(0,0,0,0.2);
}
```

```
/* Sidebar Styling */
```

```
.sidebar {
    width: 250px;
    background-color: #ffffff;
    border-right: 1px solid #eee;
    padding: 40px 20px;
}
```

```
.logo {
  color: #6a5acd;
  font-size: 24px;
  margin-bottom: 40px;
}

.nav-item {
  padding: 12px 15px;
  margin-bottom: 10px;
  border-radius: 8px;
  color: #555;
  cursor: pointer;
}

.nav-item.active {
  background-color: #6a5acd;
  color: white;
}

/* Content Styling */
.content-area {
  flex-grow: 1;
  padding: 40px;
  background-color: #f4f7fe;
}

.card {
  background: white;
  padding: 30px;
  border-radius: 15px;
  border: 1px solid #e0e0e0;
}

h2 {
  margin-top: 0;
  color: #333;
}

.input-group {
  margin-bottom: 20px;
}

.input-group label {
```

```

        display: block;
        margin-bottom: 5px;
        font-weight: 600;
        color: #666;
    }

/* Form Controls */
.form-control {
    width: 100%;
    padding: 10px;
    border: 1px solid #ddd;
    border-radius: 8px;
    box-sizing: border-box; /* Ensures padding doesn't break width */
}

.btn-primary {
    background-color: #6a5acd;
    color: white;
    border: none;
    padding: 12px 25px;
    border-radius: 8px;
    cursor: pointer;
    font-weight: bold;
    width: 100%;
}

.btn-primary:hover {
    background-color: #5a4db8;
}

.message {
    margin-top: 15px;
    color: #d9534f;
    font-size: 14px;
}

.content-area {
    overflow-y: auto;
}

/* Styles the boxes around the Option groups */
fieldset {
    border: 1px solid #ddd;
    border-radius: 8px;
}

```

```
padding: 15px;
margin-bottom: 20px;
}
```

```
legend {
  font-weight: bold;
  color: #6a5acd;
  padding: 0 10px;
}
```

```
/* Helper for labels inside the content area */
```

```
.form-group label {
  display: block;
  margin-bottom: 5px;
  font-weight: 600;
  color: #666;
}
```

```
.grid-view {
  width: 100%;
  border-collapse: collapse;
  background: white;
  border-radius: 8px;
  overflow: hidden;
}
```

```
.grid-view th {
  background-color: #6a5acd;
  color: white;
  padding: 10px;
  text-align: left;
}
```

```
.grid-view td {
  padding: 10px;
  border-bottom: 1px solid #eee;
  color: #333;
}
```

```
.grid-view tr:hover {
  background-color: #f1f1f1;
}
```