



LAB 10

Semester Project

Login.aspx.vb

```
Partial Class _Default
Imports System.Data.SqlClient
Imports System.Data

Public Class Login
    Inherits System.Web.UI.Page

    Private ReadOnly constr As String = "Data source = Localhost; Initial Catalog =
HMS; Integrated Security=True;"

    Protected Sub Page_Load(ByVal sender As Object, ByVal e As System.EventArgs)
Handles Me.Load
        Dim constrLocal As String = "Data source = Localhost; Initial Catalog = HMS;
Integrated Security=True;"
        Using con As New SqlConnection(constrLocal)
            Using cmd As New SqlCommand("Select USER_ID, USER_PASS, USER_TYPE From
HMS_USERS", con)
                Dim reader As SqlDataReader = Nothing
                Try
                    con.Open()
                    reader = cmd.ExecuteReader()
                    CustomerTable.Rows.Clear() ' Clear existing rows before
populating
                    ' Add header row
                    Dim headerRow As New TableRow()
                    headerRow.Cells.Add(New TableCell With {.Text = "<b>Login
ID</b>"}))
                    headerRow.Cells.Add(New TableCell With {.Text =
"<b>Password</b>"}))
                    headerRow.Cells.Add(New TableCell With {.Text = "<b>Role</b>"}))
                    CustomerTable.Rows.Add(headerRow)

                    While reader.Read()
                        Dim row As New TableRow()
                        row.Cells.Add(New TableCell With {.Text =
reader("USER_ID").ToString()})
                        row.Cells.Add(New TableCell With {.Text =
reader("USER_PASS").ToString()})
                        row.Cells.Add(New TableCell With {.Text =
reader("USER_TYPE").ToString()})
                        CustomerTable.Rows.Add(row)
                    End While
                Catch ex As Exception
                    label.Text = "Error loading user credentials for display: " &
ex.Message
                    label.ForeColor = System.Drawing.Color.Red
                Finally
                    If reader IsNot Nothing Then reader.Close()
                End Try
            End Using
        End Using
    End Sub

    Protected Sub Login_Click(ByVal sender As Object, ByVal e As System.EventArgs)
Handles Login.Click
```

```

Dim inputUserID As String = userID.Value.Trim()
Dim inputPassword As String = Pass.Value.Trim()

If String.IsNullOrEmpty(inputUserID) OrElse
String.IsNullOrEmpty(inputPassword) Then
    label.Text = "Please enter both Login ID and Password."
    label.ForeColor = System.Drawing.Color.Orange
    Return
End If

Using con As New SqlConnection(constr)
    Dim query As String = "SELECT USER_TYPE FROM HMS_USERS WHERE USER_ID =
@userID AND USER_PASS = @password"
    Dim cmd As New SqlCommand(query, con)
    cmd.Parameters.AddWithValue("@userID", inputUserID)
    cmd.Parameters.AddWithValue("@password", inputPassword)

    Try
        con.Open()
        Dim userType As Object = cmd.ExecuteScalar()

        If userType IsNot Nothing Then
            ' Authentication successful
            Session("UserID") = inputUserID
            Session("UserType") = userType.ToString()
            label.Text = "Login successful! Redirecting..."
            label.ForeColor = System.Drawing.Color.Green

            ' Redirect based on user type
            Select Case userType.ToString()
                Case "Admin"
                    Response.Redirect("Admin.aspx")
                Case "Doctor"
                    Response.Redirect("Doctor.aspx")
                Case "Receptionist"
                    Response.Redirect("Receptionist.aspx")
                Case "Lab Technician"
                    Response.Redirect("Lab Technician.aspx")
                Case "Nurse"
                    Response.Redirect("Nurse.aspx")
                Case "Patient"
                    Response.Redirect("Patient.aspx")
                Case Else
                    label.Text = "Invalid User Role defined in database."
                    label.ForeColor = System.Drawing.Color.Red
            End Select

        Else
            ' Authentication failed
            label.Text = "Invalid Login ID or Password."
            label.ForeColor = System.Drawing.Color.Red
        End If

    Catch ex As Exception
        label.Text = "Error during login: " & ex.Message
        label.ForeColor = System.Drawing.Color.Red
    Finally
        If con.State = ConnectionState.Open Then

```

```
        con.Close()
    End If
    cmd.Dispose()
End Try
End Using
End Sub

End Class
```

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>Authentication</title>
    <style>
        body {
            font-family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;
            background-color: #f5f7fa;
            margin: 0;
            padding: 0;
        }

        h1 {
            text-align: center;
            color: #333;
            margin-top: 30px;
        }

        .container {
            display: flex;
            justify-content: center;
            gap: 40px;
            margin: 40px auto;
            max-width: 1000px;
        }

        .login-box, .table-box {
            background-color: #fff;
            padding: 30px;
            border-radius: 12px;
            box-shadow: 0 4px 12px rgba(0,0,0,0.1);
            width: 45%;
        }

        .login-box h2, .table-box h2 {
            margin-top: 0;
            color: #555;
        }

        label {
            font-weight: 500;
            display: block;
            margin-top: 15px;
        }
    </style>
</head>
<body>
    <h1>Authentication</h1>
    <div class="container">
        <div class="login-box">
            <h2>Login</h2>
            <label>
                <input type="text" value="Username" />
            </label>
            <label>
                <input type="password" value="Password" />
            </label>
            <input type="button" value="Login" />
        </div>
        <div class="table-box">
            <table border="1">
                <thead>
                    <tr>
                        <th>Username</th>
                        <th>Password</th>
                    </tr>
                </thead>
                <tbody>
                    <tr>
                        <td>admin</td>
                        <td>admin</td>
                    </tr>
                    <tr>
                        <td>user</td>
                        <td>user</td>
                    </tr>
                </tbody>
            </table>
        </div>
    </div>
</body>
</html>
```

```

    }

    input[type="text"], input[type="password"] {
        width: 100%;
        padding: 10px;
        margin-top: 5px;
        border: 1px solid #ccc;
        border-radius: 6px;
        box-sizing: border-box;
    }

    .aspButton {
        margin-top: 20px;
        padding: 10px 20px;
        background-color: #4CAF50;
        color: white;
        border: none;
        border-radius: 6px;
        cursor: pointer;
    }

    .aspButton:hover {
        background-color: #45a049;
    }

    .error-message {
        color: red;
        font-weight: bold;
        margin-top: 10px;
        margin-bottom: 10px;
        display: block;
    }

    table {
        width: 100%;
        border-collapse: collapse;
        margin-top: 20px;
    }

    th, td {
        padding: 10px 12px;
        border: 1px solid #ddd;
        text-align: left;
    }

    th {
        background-color: #f0f0f0;
        color: #333;
    }
</style>
</head>
<body>
    <h1>User Authentication</h1>

    <form id="form1" runat="server">
        <div class="container">
            <!-- Login Panel -->
            <div class="login-box">

```

```

        <h2>Login</h2>

        <asp:Label ID="label" runat="server" CssClass="error-
message"></asp:Label>

        <label for="userID">Login ID:</label>
        <input type="text" id="userID" runat="server" required />

        <label for="Pass">Password:</label>
        <input type="password" id="Pass" runat="server" required />

        <asp:Button ID="Login" runat="server" Text="Login"
CssClass="aspButton" OnClick="Login_Click" />
    </div>

    <!-- User Table Panel -->
    <div class="table-box">
        <h2>User Credentials</h2>
        <asp:Label ID="label1" runat="server"></asp:Label>

        <asp:Table ID="CustomerTable" runat="server">
            <asp:TableRow>
                <asp:TableCell><b>Login ID</b></asp:TableCell>
                <asp:TableCell><b>Password</b></asp:TableCell>
                <asp:TableCell><b>Role</b></asp:TableCell>
            </asp:TableRow>
        </asp:Table>
    </div>
</div>
</form>
</body>
</html>

```

Admin.aspx.vb

```

Partial Class Admin
    Inherits System.Web.UI.Page

End Class

```

Admin.aspx

```

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

<!DOCTYPE html>

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

<head runat="server">
    <title>HMS</title>
    <link href="dashboard.css" rel="stylesheet" type="text/css" />

```

```

</head>

<body>

  <div class="container">
    <h1>Hospital Management System</h1>
    <p>Select an option below to get started.</p>

    <form id="form1" runat="server">
      <div>
        <ul>
          <li><a href="Room_Entry.aspx">New Room Entry</a></li>
          <li><a href="Employee_Entry.aspx">New Employee Entry</a></li>
          <li><a href="Test_Entry.aspx">New Test Entry</a></li>
        </ul>
      </div>
    </form>

  </div>

</body>
</html>

```

Employee_Entry.aspx.vb

```

Imports System.Data
Imports System.Data.SqlClient
Imports System.Reflection.Emit

Public Class Employee_Entry
  Inherits System.Web.UI.Page

  Protected Sub AddEmployee_Click(ByVal sender As Object, ByVal e As
System.EventArgs) Handles reg.Click

    Dim constr As String
    constr = "Data source = Localhost; Initial Catalog = HMS; Integrated
Security=True;"

    Dim con As New SqlConnection(constr)
    Dim transaction As SqlTransaction = Nothing

    Try
      con.Open()
      transaction = con.BeginTransaction() ' Start a transaction for atomicity

      ' 1. Insert into EMPLOYEE table
      Dim insertEmployeeSQL As String
      insertEmployeeSQL = "INSERT INTO EMPLOYEE (EMPLOYEE_ID, EMPLOYEE_NAME,
EMPLOYEE_DEPARTMENT, EMPLOYEE_DESIGNATION, ROOM_ID)"
      insertEmployeeSQL &= "VALUES (@employeeId, @employeeName,
@employeeDepartment, @employeeDesignation, @roomId)"

      Dim cmdEmployee As New SqlCommand(insertEmployeeSQL, con, transaction)
      cmdEmployee.Parameters.AddWithValue("@employeeId", employeeId.Value)

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        cmdEmployee.Parameters.AddWithValue("@employeeName", employeeName.Value)
        cmdEmployee.Parameters.AddWithValue("@employeeDepartment",
employeeDepartment.Value)
        cmdEmployee.Parameters.AddWithValue("@employeeDesignation",
employeeDesignation.Value)

        If String.IsNullOrEmpty(roomId.Value) Then
            cmdEmployee.Parameters.AddWithValue("@roomId", DBNull.Value) ' Use
DBNull for null values
        Else
            cmdEmployee.Parameters.AddWithValue("@roomId",
Convert.ToInt32(roomId.Value))
        End If

        cmdEmployee.ExecuteNonQuery()

        ' 2. Insert into EMPLOYEE_CONTACT table
        Dim insertContactSQL As String
        insertContactSQL = "INSERT INTO EMPLOYEE_CONTACT (EMPLOYEE_ID,
EMPLOYEE_CONTACT_NUMBER)"
        insertContactSQL &= "VALUES (@employeeId, @contactNumber)"

        Dim cmdContact As New SqlCommand(insertContactSQL, con, transaction)
        cmdContact.Parameters.AddWithValue("@employeeId", employeeId.Value)
        cmdContact.Parameters.AddWithValue("@contactNumber",
contactNumber.Value)
        cmdContact.ExecuteNonQuery()

        ' 3. Insert into EMPLOYEE_QUALIFICATION table
        Dim insertQualificationSQL As String
        insertQualificationSQL = "INSERT INTO EMPLOYEE_QUALIFICATION
(EMPLOYEE_ID, QUALIFICATION)"
        insertQualificationSQL &= "VALUES (@employeeId, @qualification)"

        Dim cmdQualification As New SqlCommand(insertQualificationSQL, con,
transaction)
        cmdQualification.Parameters.AddWithValue("@employeeId",
employeeId.Value)
        cmdQualification.Parameters.AddWithValue("@qualification",
qualification.Value)
        cmdQualification.ExecuteNonQuery()

        ' 4. Insert into HMS_USERS table for authentication
        Dim insertUserSQL As String
        insertUserSQL = "INSERT INTO HMS_USERS (USER_ID, USER_PASS, USER_TYPE)"
        insertUserSQL &= "VALUES (@userId, @userPass, @userType)"

        Dim cmdUser As New SqlCommand(insertUserSQL, con, transaction)
        cmdUser.Parameters.AddWithValue("@userId", employeeId.Value)
        cmdUser.Parameters.AddWithValue("@userPass", password.Value)
        cmdUser.Parameters.AddWithValue("@userType", employeeType.Value)
        cmdUser.ExecuteNonQuery()

        transaction.Commit() ' Commit the transaction if all inserts are
successful
        label.Text = " <b style='color: green;'> Employee added successfully!
</b>"

```



```

' Clear form fields after successful submission
employeeId.Value = ""
employeeName.Value = ""
employeeDepartment.Value = ""
employeeDesignation.Value = ""
roomId.Value = ""
contactNumber.Value = ""
qualification.Value = ""
password.Value = ""
employeeType.Value = "" ' Reset dropdown

Catch ex As Exception
If transaction IsNot Nothing Then
    transaction.Rollback() ' Rollback on error
End If
label.Text = "Error: " & ex.Message
label.ForeColor = System.Drawing.Color.Red ' Set error message color to
red

Finally
If con.State = ConnectionState.Open Then
    con.Close()
End If
If transaction IsNot Nothing Then
    transaction.Dispose()
End If
End Try

End Sub

End Class

```

Employee_Entry.aspx

```

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

<!DOCTYPE html>

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

<head runat="server">
    <title>Employee Entry</title>
    <link href="styles.css" rel="stylesheet" type="text/css" />
</head>

<body>
    <h2>New Employee Entry</h2>

    <form id="form1" runat="server">
        <label for="employeeId">Employee ID:</label>
        <input type="text" id="employeeId" runat="server" required
placeholder="e.g., EMP-001" /><br />

        <label for="employeeName">Employee Name:</label>
        <input type="text" id="employeeName" runat="server" required /><br />

        <label for="employeeDepartment">Department:</label>

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```

<input type="text" id="employeeDepartment" runat="server" required /><br />

<label for="employeeDesignation">Designation:</label>
<input type="text" id="employeeDesignation" runat="server" required /><br />

<label for="roomId">Room ID (Optional):</label>
<input type="number" id="roomId" runat="server" /><br />

<label for="contactNumber">Contact Number:</label>
<input type="text" id="contactNumber" runat="server" required
placeholder="e.g., 03xx-xxxxxxx" /><br />

<label for="qualification">Qualification:</label>
<input type="text" id="qualification" runat="server" required
placeholder="e.g., MBBS, RN, Lab Tech" /><br />

<label for="employeeType">Employee Type:</label>
<select id="employeeType" runat="server" required>
  <option value="">-- Select --</option>
  <option value="Doctor">Doctor</option>
  <option value="Nurse">Nurse</option>
  <option value="Receptionist">Receptionist</option>
  <option value="Lab Technician">Lab Technician</option>
</select><br /><br />

<label for="password">Password:</label>
<input type="password" id="password" runat="server" required /><br /><br />

<div class="button-container">
  <asp:Button ID="reg" runat="server" Text="Add Employee"
OnClick="AddEmployee_Click" CssClass="asp-button" />
</div>

<asp:Label ID="label" runat="server" CssClass="message-label"></asp:Label>
</form>

<a href="Admin.aspx" class="back-link">Back to Home</a>

</body>
</html>

```

Room_Entry.aspx.vb

```

Imports System.Data
Imports System.Data.SqlClient
Imports System.Reflection.Emit

Public Class Room_Entry
  Inherits System.Web.UI.Page

  Protected Sub AddRoom_Click(ByVal sender As Object, ByVal e As System.EventArgs)
  Handles reg.Click

    Dim constr As String
    constr = "Data source = Localhost; Initial Catalog = HMS; Integrated
Security=True;"

```

```

    Dim insertSQL As String
    insertSQL = "INSERT INTO ROOMS (ROOM_ID, ROOM_TYPE, COUNT_OF_PERSONS,
ROOM_CAPACITY, ROOM_AVAILABILITY)"
    insertSQL &= "VALUES (@roomId, @roomType, @countOfPersons, @roomCapacity,
@roomAvailability)"

    Dim con As New SqlConnection(constr)
    Dim cmd As New SqlCommand(insertSQL, con)

    ' Add parameters to prevent SQL injection and handle data types
    cmd.Parameters.AddWithValue("@roomId", Convert.ToInt32(roomId.Value))
    cmd.Parameters.AddWithValue("@roomType", roomType.Value)
    cmd.Parameters.AddWithValue("@countOfPersons",
Convert.ToInt32(countOfPersons.Value))
    cmd.Parameters.AddWithValue("@roomCapacity",
Convert.ToInt32(roomCapacity.Value))
    cmd.Parameters.AddWithValue("@roomAvailability", roomAvailability.Value)

    Try
        con.Open()
        cmd.ExecuteNonQuery()
        label.Text = " <b style='color: green;'> Room added successfully! </b>"

        ' Clear form fields after successful submission
        roomId.Value = ""
        roomType.Value = ""
        countOfPersons.Value = "0" ' Reset to 0
        roomCapacity.Value = ""
        roomAvailability.Value = "YES" ' Reset to default

    Catch ex As Exception
        label.Text = "Error: " & ex.Message
        label.ForeColor = System.Drawing.Color.Red ' Set error message color to
red

    Finally
        If con.State = ConnectionState.Open Then
            con.Close()
        End If
        cmd.Dispose()
    End Try

End Sub

End Class

```

Room_Entry.aspx

```

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

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title>Room Entry</title>
    <link href="styles.css" rel="stylesheet" type="text/css" />
</head>

```

```

<body>
  <h2>New Room Entry</h2>

  <form id="form1" runat="server">
    <label for="roomId">Room ID:</label>
    <input type="number" id="roomId" runat="server" required /><br />

    <label for="roomType">Room Type:</label>
    <input type="text" id="roomType" runat="server" required placeholder="e.g.,
General Ward, Private, ICU" /><br />

    <label for="countOfPersons">Current Occupancy:</label>
    <input type="number" id="countOfPersons" runat="server" value="0" required
/><br />

    <label for="roomCapacity">Room Capacity:</label>
    <input type="number" id="roomCapacity" runat="server" required /><br />

    <label for="roomAvailability">Room Availability:</label>
    <select id="roomAvailability" runat="server" required>
      <option value="YES">YES</option>
      <option value="NO">NO</option>
    </select><br /><br />

    <div class="button-container">
      <asp:Button ID="reg" runat="server" Text="Add Room"
OnClick="AddRoom_Click" CssClass="asp-button" />
    </div>

    <asp:Label ID="label" runat="server" CssClass="message-label"></asp:Label>
  </form>

  <a href="Admin.aspx" class="back-link">Back to Home</a>

</body>
</html>

```

Test_Entry.aspx.vb

```

Imports System.Data
Imports System.Data.SqlClient
Imports System.Reflection.Emit

Public Class Test_Entry
  Inherits System.Web.UI.Page

  Protected Sub AddTest_Click(ByVal sender As Object, ByVal e As System.EventArgs)
Handles reg.Click

    Dim constr As String
    constr = "Data source = Localhost; Initial Catalog = HMS; Integrated
Security=True;"

    Dim insertSQL As String
    insertSQL = "INSERT INTO TEST (TEST_ID, TEST_NAME, TEST_COST)"
    insertSQL &= "VALUES (@testId, @testName, @testCost)"

```

```

Dim con As New SqlConnection(constr)
Dim cmd As New SqlCommand(insertSQL, con)

cmd.Parameters.AddWithValue("@testId", Convert.ToInt32(testId.Value))
cmd.Parameters.AddWithValue("@testName", testName.Value)
cmd.Parameters.AddWithValue("@testCost", Convert.ToDecimal(testCost.Value))

Try
    con.Open()
    cmd.ExecuteNonQuery()
    label.Text = " <b style='color: green;'> Test added successfully! </b>"

    ' Clear form fields after successful submission
    testId.Value = ""
    testName.Value = ""
    testCost.Value = ""

Catch ex As Exception
    label.Text = "Error: " & ex.Message
    label.ForeColor = System.Drawing.Color.Red
Finally
    If con.State = ConnectionState.Open Then
        con.Close()
    End If
    cmd.Dispose()
End Try

End Sub

End Class

```

Test_Entry.aspx

```

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

<!DOCTYPE html>

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

<head runat="server">
    <title>Test Entry</title>
    <link href="styles.css" rel="stylesheet" type="text/css" />
</head>

<body>
    <h2>New Test Entry</h2>

    <form id="form1" runat="server">
        <label for="testId">Test ID:</label>
        <input type="number" id="testId" runat="server" required /><br /><br />

        <label for="testName">Test Name:</label>
        <input type="text" id="testName" runat="server" required /><br /><br />

        <label for="testCost">Test Cost:</label>
        <input type="number" id="testCost" runat="server" step="0.01" required /><br
    />

```

```

        <div class="button-container">
            <asp:Button ID="reg" runat="server" Text="Add Test"
OnClick="AddTest_Click" CssClass="asp-button" />
        </div>

        <asp:Label ID="label" runat="server" CssClass="message-label"></asp:Label>
    </form>

    <a href="Admin.aspx" class="back-link">Back to Home</a>

</body>
</html>

```

Doctor.aspx.vb

```

Partial Class Doctor
    Inherits System.Web.UI.Page

End Class

```

Doctor.aspx

```

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

<!DOCTYPE html>

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

<head runat="server">
    <title>HMS</title>
    <link href="dashboard.css" rel="stylesheet" type="text/css" />
</head>

<body>

    <div class="container">
        <h1>Hospital Management System</h1>
        <p>Select an option below to get started.</p>

        <form id="form1" runat="server">
            <div>
                <ul>
                    <li><a href="Appointment_Management.aspx">Manage
Appointments</a></li>
                    <li><a href="View_Doctors.aspx">View Doctor Details</a></li>
                </ul>
            </div>
        </form>

    </div>

</body>

```

</html>

Appointment_Management.aspx.vb

```
Imports System.Data.SqlClient
Imports System.Data ' Required for CommandType and SqlDbType

Public Class Appointment_Management
    Inherits System.Web.UI.Page

    Private ReadOnly constr As String = "Data source = localhost; Initial Catalog =
HMS; Integrated Security=True;"

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

    Private Sub PopulateAppointmentsDropdown()
        Using con As New SqlConnection(constr)
            ' Query to get Appointment ID, Date, and Patient ID.
            ' We'll create a custom display string in the code for DataTextField.
            Dim cmd As New SqlCommand("SELECT APPOINTMENT_ID, APPOINTMENT_DATE,
PATIENT_ID FROM APPOINTMENT ORDER BY APPOINTMENT_DATE DESC", con)
            Try
                con.Open()
                Dim dt As New DataTable()
                dt.Load(cmd.ExecuteReader())

                ' Add a custom column for display text
                dt.Columns.Add("AppointmentDisplay", GetType(String))
                For Each row As DataRow In dt.Rows
                    ' Corrected string formatting for VB.NET
                    row("AppointmentDisplay") = String.Format("Appointment ID: {0} -
Date: {1} - Patient ID: {2}",
                                                                    row("APPOINTMENT_ID"),
                                                                    Convert.ToDateTime(row("APPOINTMENT_DATE")).ToString("yyyy-MM-dd HH:mm"),
                                                                    row("PATIENT_ID"))
                Next

                ddlAppointments.DataSource = dt
                ddlAppointments.DataTextField = "AppointmentDisplay" ' Custom
property for display text
                ddlAppointments.DataValueField = "APPOINTMENT_ID"
                ddlAppointments.DataBind()

                ddlAppointments.Items.Insert(0, New ListItem("-- Select an
Appointment --", "")) ' Add a default item
            Catch ex As Exception
                lblMessage.Text = "Error loading appointments: " & ex.Message
                lblMessage.ForeColor = System.Drawing.Color.Red
            End Try
        End Using
    End Sub
End Sub
```

```

Protected Sub ddlAppointments_SelectedIndexChanged(ByVal sender As Object, ByVal
e As System.EventArgs) Handles ddlAppointments.SelectedIndexChanged
    If ddlAppointments.SelectedValue <> "" Then
        Dim selectedAppointmentId As Integer =
Convert.ToInt32(ddlAppointments.SelectedValue)
        LoadAppointmentAndPatientDetails(selectedAppointmentId)
        BindDiseasesGridView(selectedAppointmentId)
        BindPrescriptionsGridView(selectedAppointmentId)

        ' Get Patient ID to bind patient tests
        Dim patientId As String = ""
        Using con As New SqlConnection(constr)
            Dim cmd As New SqlCommand("SELECT PATIENT_ID FROM APPOINTMENT WHERE
APPOINTMENT_ID = @appointmentId", con)
            cmd.Parameters.AddWithValue("@appointmentId", selectedAppointmentId)
            Try
                con.Open()
                Dim result As Object = cmd.ExecuteScalar()
                If result IsNot Nothing Then
                    patientId = result.ToString()
                End If
            Catch ex As Exception
                lblMessage.Text = "Error retrieving Patient ID: " & ex.Message
                lblMessage.ForeColor = System.Drawing.Color.Red
            End Try
        End Using

        If Not String.IsNullOrEmpty(patientId) Then
            BindPatientTestsGridView(patientId)
            patientTestsPanel.Visible = True ' Make patient tests panel visible
        Else
            patientTestsPanel.Visible = False
        End If

        ' Make panels visible
        patientDetailsPanel.Visible = True
        diseaseEntryPanel.Visible = True
        prescriptionEntryPanel.Visible = True
        lblMessage.Text = "" ' Clear any previous messages
    Else
        ' Hide panels if no appointment is selected
        patientDetailsPanel.Visible = False
        diseaseEntryPanel.Visible = False
        prescriptionEntryPanel.Visible = False
        patientTestsPanel.Visible = False ' Also hide patient tests panel
        lblMessage.Text = ""
    End If
End Sub

Private Sub LoadAppointmentAndPatientDetails(ByVal appointmentId As Integer)
    Using con As New SqlConnection(constr)
        Dim query As String = "SELECT A.APPOINTMENT_ID, A.APPOINTMENT_DATE,
P.PATIENT_NAME, P.PATIENT_AGE, P.GENDER " &
            "FROM APPOINTMENT A " &
            "JOIN PATIENT P ON A.PATIENT_ID = P.PATIENT_ID " &
            "WHERE A.APPOINTMENT_ID = @appointmentId"
    
```



```

Dim cmd As New SqlCommand(query, con)
cmd.Parameters.AddWithValue("@appointmentId", appointmentId)

Try
    con.Open()
    Dim dr As SqlDataReader = cmd.ExecuteReader()
    If dr.Read() Then
        lblAppointmentId.Text = dr("APPOINTMENT_ID").ToString()
        lblAppointmentDate.Text =
Convert.ToDateTime(dr("APPOINTMENT_DATE")).ToString("yyyy-MM-dd HH:mm") ' Format
date
        lblPatientName.Text = dr("PATIENT_NAME").ToString()
        lblPatientAge.Text = dr("PATIENT_AGE").ToString()
        lblPatientGender.Text = dr("GENDER").ToString()
    Else
        lblMessage.Text = "Appointment details not found."
        lblMessage.ForeColor = System.Drawing.Color.Orange
    End If
    dr.Close()
Catch ex As Exception
    lblMessage.Text = "Error loading patient details: " & ex.Message
    lblMessage.ForeColor = System.Drawing.Color.Red
End Try
End Using
End Sub

Private Sub BindDiseasesGridView(ByVal appointmentId As Integer)
    Using con As New SqlConnection(constr)
        Dim query As String = "SELECT DISEASE FROM APPOINTMENT_DISEASE WHERE
APPOINTMENT_ID = @appointmentId"
        Dim cmd As New SqlCommand(query, con)
        cmd.Parameters.AddWithValue("@appointmentId", appointmentId)
        Try
            con.Open()
            Dim dt As New DataTable()
            dt.Load(cmd.ExecuteReader())
            gvDiseases.DataSource = dt
            gvDiseases.DataBind()
        Catch ex As Exception
            lblMessage.Text = "Error loading diseases: " & ex.Message
            lblMessage.ForeColor = System.Drawing.Color.Red
        End Try
    End Using
End Sub

Private Sub BindPrescriptionsGridView(ByVal appointmentId As Integer)
    Using con As New SqlConnection(constr)
        Dim query As String = "SELECT MEDICINE_NAME, DOSAGE, DURATION FROM
APPOINTMENT_PERSCRIPTION WHERE APPOINTMENT_ID = @appointmentId"
        Dim cmd As New SqlCommand(query, con)
        cmd.Parameters.AddWithValue("@appointmentId", appointmentId)
        Try
            con.Open()
            Dim dt As New DataTable()
            dt.Load(cmd.ExecuteReader())
            gvPrescriptions.DataSource = dt
            gvPrescriptions.DataBind()
        Catch ex As Exception
    
```

```

        lblMessage.Text = "Error loading prescriptions: " & ex.Message
        lblMessage.ForeColor = System.Drawing.Color.Red
    End Try
End Using
End Sub

Private Sub BindPatientTestsGridView(ByVal patientId As String)
    Using con As New SqlConnection(constr)
        Dim query As String = "SELECT PT.TEST_DATE, T.TEST_NAME, T.TEST_COST,
PT.RESULT_DATE, PT.TEST_RESULT " &
            "FROM PATIENT_TESTS PT " &
            "JOIN TEST T ON PT.TEST_ID = T.TEST_ID " &
            "WHERE PT.PATIENT_ID = @patientId " &
            "ORDER BY PT.TEST_DATE DESC"
        Dim cmd As New SqlCommand(query, con)
        cmd.Parameters.AddWithValue("@patientId", patientId)
        Try
            con.Open()
            Dim dt As New DataTable()
            dt.Load(cmd.ExecuteReader())
            gvPatientTests.DataSource = dt
            gvPatientTests.DataBind()
        Catch ex As Exception
            lblMessage.Text = "Error loading patient tests: " & ex.Message
            lblMessage.ForeColor = System.Drawing.Color.Red
        End Try
    End Using
End Sub

Protected Sub btnAddDisease_Click(ByVal sender As Object, ByVal e As
System.EventArgs) Handles btnAddDisease.Click
    If ddlAppointments.SelectedValue = "" Then
        lblMessage.Text = "Please select an appointment first."
        lblMessage.ForeColor = System.Drawing.Color.Orange
        Return
    End If

    Dim selectedAppointmentId As Integer =
Convert.ToInt32(ddlAppointments.SelectedValue)
    Dim disease As String = txtDisease.Value.Trim()

    If String.IsNullOrEmpty(disease) Then
        lblMessage.Text = "Disease cannot be empty."
        lblMessage.ForeColor = System.Drawing.Color.Orange
        Return
    End If

    Using con As New SqlConnection(constr)
        Dim insertSQL As String = "INSERT INTO APPOINTMENT_DISEASE
(APPOINTMENT_ID, DISEASE) VALUES (@appointmentId, @disease)"
        Dim cmd As New SqlCommand(insertSQL, con)
        cmd.Parameters.AddWithValue("@appointmentId", selectedAppointmentId)
        cmd.Parameters.AddWithValue("@disease", disease)

        Try
            con.Open()
            cmd.ExecuteNonQuery()
        End Try
    End Using
End Sub

```

```

        lblMessage.Text = " <b style='color: green;'> Disease added
successfully! </b>"
        txtDisease.Value = "" ' Clear the input
        BindDiseasesGridView(selectedAppointmentId) ' Refresh the grid
    Catch ex As Exception
        lblMessage.Text = "Error adding disease: " & ex.Message
        lblMessage.ForeColor = System.Drawing.Color.Red
    End Try
End Using
End Sub

Protected Sub btnAddPrescription_Click(ByVal sender As Object, ByVal e As
System.EventArgs) Handles btnAddPrescription.Click
    If ddlAppointments.SelectedValue = "" Then
        lblMessage.Text = "Please select an appointment first."
        lblMessage.ForeColor = System.Drawing.Color.Orange
        Return
    End If

    Dim selectedAppointmentId As Integer =
Convert.ToInt32(ddlAppointments.SelectedValue)
    Dim medicineName As String = txtMedicineName.Value.Trim()
    Dim dosage As String = txtDosage.Value.Trim()
    Dim duration As String = txtDuration.Value.Trim()

    If String.IsNullOrEmpty(medicineName) Then
        lblMessage.Text = "Medicine Name cannot be empty."
        lblMessage.ForeColor = System.Drawing.Color.Orange
        Return
    End If

    Using con As New SqlConnection(constr)
        Dim insertSQL As String = "INSERT INTO APPOINTMENT_PERSCRIPTION
(APPOINTMENT_ID, MEDICINE_NAME, DOSAGE, DURATION) VALUES (@appointmentId,
@medicineName, @dosage, @duration)"
        Dim cmd As New SqlCommand(insertSQL, con)
        cmd.Parameters.AddWithValue("@appointmentId", selectedAppointmentId)
        cmd.Parameters.AddWithValue("@medicineName", medicineName)
        cmd.Parameters.AddWithValue("@dosage",
If(String.IsNullOrEmpty(dosage), DBNull.Value, dosage)) ' Handle optional
dosage
        cmd.Parameters.AddWithValue("@duration",
If(String.IsNullOrEmpty(duration), DBNull.Value, duration)) ' Handle optional
duration

        Try
            con.Open()
            cmd.ExecuteNonQuery()
            lblMessage.Text = " <b style='color: green;'> Prescription added
successfully! </b>"
            txtMedicineName.Value = "" ' Clear inputs
            txtDosage.Value = ""
            txtDuration.Value = ""
            BindPrescriptionsGridView(selectedAppointmentId) ' Refresh the grid
        Catch ex As Exception
            lblMessage.Text = "Error adding prescription: " & ex.Message
            lblMessage.ForeColor = System.Drawing.Color.Red
        End Try
    End Using
End Sub

```

```
End Using
End Sub
```

```
End Class
```

Appointment_Management.aspx

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

<!DOCTYPE html>

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

<head runat="server">
  <title>Appointment Management</title>
  <link href="styles.css" rel="stylesheet" type="text/css" />
  <link href="viewstyle.css" rel="stylesheet" type="text/css" />
</head>
<body>
  <h2>Appointment Management</h2>

  <form id="form1" runat="server">
    <div class="form-section">
      <h3>Select Appointment</h3>
      <label for="ddlAppointments">Choose an Appointment:</label>
      <asp:DropDownList ID="ddlAppointments" runat="server"
AutoPostBack="True" OnSelectedIndexChanged="ddlAppointments_SelectedIndexChanged"
CssClass="form-control">
        </asp:DropDownList><br />
      </div>

      <div id="patientDetailsPanel" runat="server" visible="false" class="form-
section">
        <h3>Patient and Appointment Details</h3>
        <div class="patient-details">
          <p><b>Appointment ID:</b> <asp:Label ID="lblAppointmentId"
runat="server"></asp:Label></p>
          <p><b>Appointment Date:</b> <asp:Label ID="lblAppointmentDate"
runat="server"></asp:Label></p>
          <p><b>Patient Name:</b> <asp:Label ID="lblPatientName"
runat="server"></asp:Label></p>
          <p><b>Patient Age:</b> <asp:Label ID="lblPatientAge"
runat="server"></asp:Label></p>
          <p><b>Patient Gender:</b> <asp:Label ID="lblPatientGender"
runat="server"></asp:Label></p>
        </div>
      </div>

      <div id="diseaseEntryPanel" runat="server" visible="false" class="form-
section">
        <h3>Add Disease</h3>
        <label for="txtDisease">Disease:</label>
        <input type="text" id="txtDisease" runat="server" required /><br />
        <div class="button-container">
          <asp:Button ID="btnAddDisease" runat="server" Text="Add Disease"
OnClick="btnAddDisease_Click" CssClass="asp-button" />
        </div>
      </div>
    </form>
  </body>
</html>
```

```

        <div class="gridview-container">
            <asp:GridView ID="gvDiseases" runat="server"
AutoGenerateColumns="True" HeaderStyle-CssClass="gridview-header" RowStyle-
CssClass="gridview-row">
                </asp:GridView>
            </div>
        </div>

        <div id="prescriptionEntryPanel" runat="server" visible="false" class="form-
section">
            <h3>Add Prescription</h3>
            <label for="txtMedicineName">Medicine Name:</label>
            <input type="text" id="txtMedicineName" runat="server" required /><br />

            <label for="txtDosage">Dosage:</label>
            <input type="text" id="txtDosage" runat="server" /><br />

            <label for="txtDuration">Duration:</label>
            <input type="text" id="txtDuration" runat="server" /><br />
            <div class="button-container">
                <asp:Button ID="btnAddPrescription" runat="server" Text="Add
Prescription" OnClick="btnAddPrescription_Click" CssClass="asp-button" />
            </div>
            <div class="gridview-container">
                <asp:GridView ID="gvPrescriptions" runat="server"
AutoGenerateColumns="True" HeaderStyle-CssClass="gridview-header" RowStyle-
CssClass="gridview-row">
                    </asp:GridView>
                </div>
            </div>

        <div id="patientTestsPanel" runat="server" visible="false" class="form-
section">
            <h3>Patient Tests</h3>
            <div class="gridview-container">
                <asp:GridView ID="gvPatientTests" runat="server"
AutoGenerateColumns="True" HeaderStyle-CssClass="gridview-header" RowStyle-
CssClass="gridview-row">
                    </asp:GridView>
                </div>
            </div>

            <asp:Label ID="lblMessage" runat="server" CssClass="message-
label"></asp:Label>
        </form>
        <a href="Default.aspx" class="back-link">Back to Home</a>
    </body>
</html>

```

View_Doctors.aspx.vb

```

Imports System.Data
Imports System.Data.SqlClient

Partial Class View_Doctors
    Inherits System.Web.UI.Page

```

```

Private ReadOnly constr As String = "Data source = Localhost; Initial Catalog =
HMS; Integrated Security=True;"

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

Private Sub BindAllEmployeesGridView()
    Using con As New SqlConnection(constr)
        ' Query to get only doctor details from the DOCTOR_VIEW
        Dim query As String = "SELECT EMPLOYEE_NAME, EMPLOYEE_DEPARTMENT,
EMPLOYEE_DESIGNATION, QUALIFICATION, ROOM_ID FROM DOCTOR_VIEW ORDER BY EMPLOYEE_NAME
ASC"

        Dim cmd As New SqlCommand(query, con)
        Try
            con.Open()
            Dim dt As New DataTable()
            dt.Load(cmd.ExecuteReader())
            gvAllEmployees.DataSource = dt
            gvAllEmployees.DataBind()
            If dt.Rows.Count = 0 Then
                lblMessage.Text = "No doctor records found."
                lblMessage.ForeColor = System.Drawing.Color.Orange
            Else
                lblMessage.Text = "" ' Clear message if data is loaded
            End If
        Catch ex As Exception
            lblMessage.Text = "Error loading doctor details: " & ex.Message
            lblMessage.ForeColor = System.Drawing.Color.Red
        End Try
    End Using
End Sub

End Class

```

View_Doctors.aspx

```

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

<!DOCTYPE html>

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

<head runat="server">
    <title>Doctors' Details</title>
    <link href="styles.css" rel="stylesheet" type="text/css" />
    <link href="viewstyle.css" rel="stylesheet" type="text/css" />
</head>
<body>
    <h2>Detail of Doctors</h2>

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

```

```

        <div class="form-section">
            <h3>Doctors</h3>
            <div class="gridview-container">
                <asp:GridView ID="gvAllEmployees" runat="server"
AutoGenerateColumns="True" HeaderStyle-CssClass="gridview-header" RowStyle-
CssClass="gridview-row">
                    </asp:GridView>
                </div>
            </div>

            <asp:Label ID="lblMessage" runat="server" CssClass="message-
label"></asp:Label>
        </form>

        <a href="Doctor.aspx" class="back-link">Back to Home</a>
</body>
</html>

```

Receptionist.aspx.vb

```

Partial Class Receptionist
    Inherits System.Web.UI.Page

End Class

```

Receptionist.aspx

```

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

<!DOCTYPE html>

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

<head runat="server">
    <title>HMS</title>
    <link href="dashboard.css" rel="stylesheet" type="text/css" />
</head>

<body>

    <div class="container">
        <h1>Hospital Management System</h1>
        <p>Select an option below to get started.</p>

        <form id="form1" runat="server">
            <div>
                <ul>
                    <li><a href="Appointments_Rec.aspx">Make Patient
Appointments</a></li>
                    <li><a href="View_Employees.aspx">View Employee Details</a></li>
                    <li><a href="Admit_patient.aspx">Admit Patient</a></li>
                    <li><a href="Generate_Invoice.aspx">Generate Invoice</a></li>

```

```

        </ul>
    </div>
</form>

</div>

</body>
</html>

```

Admit_patient.aspx.vb

```

Imports System.Data.SqlClient
Imports System.Data

Public Class Admit_patient
    Inherits System.Web.UI.Page

    Private ReadOnly constr As String = "Data source = localhost; Initial Catalog = HMS; Integrated Security=True;"

    Protected Sub Page_Load(ByVal sender As Object, ByVal e As System.EventArgs)
        Handles Me.Load
            If Not IsPostBack Then
                ' Check if the user is logged in and is a Receptionist
                If Session("UserID") Is Nothing OrElse Session("UserType") Is Nothing
                OrElse Session("UserType").ToString() <> "Receptionist" Then
                    Response.Redirect("Login.aspx") ' Redirect to login if not
                    authenticated or not a Receptionist
                Else
                    PopulateAppointmentsDropdown()
                    PopulateRoomsDropdown()
                    txtAdmissionDate.Value = DateTime.Now.ToString("yyyy-MM-ddTHH:mm") '
                    Set default admission date
                End If
            End If
        End Sub

    Private Sub PopulateAppointmentsDropdown()
        Using con As New SqlConnection(constr)
            ' Select appointments that have not yet led to an admission
            Dim query As String = "SELECT A.APPOINTMENT_ID, A.APPOINTMENT_DATE,
            A.PATIENT_ID, P.PATIENT_NAME " &
                "FROM APPOINTMENT A JOIN PATIENT P ON A.PATIENT_ID
            = P.PATIENT_ID " &
                "LEFT JOIN ADMISSION AD ON A.APPOINTMENT_ID =
            AD.APPOINTMENT_ID " &
                "WHERE AD.ADMISSION_ID IS NULL ORDER BY
            A.APPOINTMENT_DATE DESC"
            Using cmd As New SqlCommand(query, con)
                Try
                    con.Open()
                    Dim dt As New DataTable()
                    dt.Load(cmd.ExecuteReader())

                    dt.Columns.Add("AppointmentDisplay", GetType(String))
                    For Each row As DataRow In dt.Rows
                        row("AppointmentDisplay") = String.Format("Appt ID: {0} -
            Patient: {1} ({2}) - Date: {3}",

```



```

row("APPOINTMENT_ID"),
row("PATIENT_NAME"),
row("PATIENT_ID"),
Convert.ToDateTime(row("APPOINTMENT_DATE")).ToString("yyyy-MM-dd HH:mm"))
Next
    ddlAppointments.DataSource = dt
    ddlAppointments.DataTextField = "AppointmentDisplay"
    ddlAppointments.DataValueField = "APPOINTMENT_ID"
    ddlAppointments.DataBind()
    ' The default "-- Select an Appointment --" item is already
added in ASPX
Catch ex As Exception
    lblMessage.Text = "Error loading appointments: " & ex.Message
    lblMessage.ForeColor = System.Drawing.Color.Red
End Try
End Using
End Sub

Private Sub PopulateRoomsDropdown()
    Using con As New SqlConnection(constr)
        ' Select available rooms (where COUNT_OF_PERSONS < ROOM_CAPACITY and
ROOM_AVAILABILITY = 'YES')
        Dim query As String = "SELECT ROOM_ID, ROOM_TYPE, COUNT_OF_PERSONS,
ROOM_CAPACITY FROM ROOMS WHERE COUNT_OF_PERSONS < ROOM_CAPACITY AND
ROOM_AVAILABILITY = 'YES' ORDER BY ROOM_ID ASC"
        Using cmd As New SqlCommand(query, con)
            Try
                con.Open()
                Dim dt As New DataTable()
                dt.Load(cmd.ExecuteReader())

                dt.Columns.Add("RoomDisplay", GetType(String))
                For Each row As DataRow In dt.Rows
                    row("RoomDisplay") = String.Format("Room ID: {0} - Type: {1}
(Capacity: {2}/{3})",
row("ROOM_ID"),
row("ROOM_TYPE"),
row("COUNT_OF_PERSONS"),
row("ROOM_CAPACITY"))

                Next

                ddlRooms.DataSource = dt
                ddlRooms.DataTextField = "RoomDisplay"
                ddlRooms.DataValueField = "ROOM_ID"
                ddlRooms.DataBind()
                ' The default "-- Select a Room --" item is already added in
ASPX
Catch ex As Exception
    lblMessage.Text = "Error loading rooms: " & ex.Message
    lblMessage.ForeColor = System.Drawing.Color.Red
End Try
End Using
End Using

```

```

End Sub

Protected Sub btnAdmitPatient_Click(ByVal sender As Object, ByVal e As
System.EventArgs) Handles btnAdmitPatient.Click
    Dim appointmentId As Integer
    Dim roomId As Integer
    Dim admissionDate As DateTime
    Dim dischargeDate As DateTime? = Nothing ' Nullable DateTime for optional
discharge date

    If Not Integer.TryParse(ddlAppointments.SelectedValue, appointmentId) OrElse
appointmentId = 0 Then
        lblMessage.Text = "Please select an appointment to admit."
        lblMessage.ForeColor = System.Drawing.Color.Orange
        Return
    End If

    If Not Integer.TryParse(ddlRooms.SelectedValue, roomId) OrElse roomId = 0
Then
        lblMessage.Text = "Please select a room."
        lblMessage.ForeColor = System.Drawing.Color.Orange
        Return
    End If

    If Not DateTime.TryParse(txtAdmissionDate.Value, admissionDate) Then
        lblMessage.Text = "Please enter a valid admission date and time."
        lblMessage.ForeColor = System.Drawing.Color.Orange
        Return
    End If

    If Not String.IsNullOrEmpty(txtDischargeDate.Value) Then
        Dim parsedDischargeDate As DateTime
        If DateTime.TryParse(txtDischargeDate.Value, parsedDischargeDate) Then
            dischargeDate = parsedDischargeDate
        Else
            lblMessage.Text = "Please enter a valid discharge date and time, or
leave it empty."
            lblMessage.ForeColor = System.Drawing.Color.Orange
            Return
        End If
    End If

    Using con As New SqlConnection(constr)
        Dim transaction As SqlTransaction = Nothing
        Try
            con.Open()
            transaction = con.BeginTransaction()

            ' 1. Insert into ADMISSION table
            Dim insertAdmissionSQL As String = "INSERT INTO ADMISSION
(APPOINTMENT_ID, ROOM_ID, ADMISSION_DATE, DISCHARGE_DATE) " &
                "VALUES (@appointmentId, @roomId,
@admissionDate, @dischargeDate)"
            Using cmdAdmission As New SqlCommand(insertAdmissionSQL, con,
transaction)
                cmdAdmission.Parameters.AddWithValue("@appointmentId",
appointmentId)
                cmdAdmission.Parameters.AddWithValue("@roomId", roomId)
            End Using
        Catch ex As Exception
            If transaction IsNot Nothing Then transaction.Rollback()
            lblMessage.Text = ex.Message
            lblMessage.ForeColor = System.Drawing.Color.Red
        End Try
    End Using
End Sub

```

```

        cmdAdmission.Parameters.AddWithValue("@admissionDate",
admissionDate)
        If dischargeDate.HasValue Then
            cmdAdmission.Parameters.AddWithValue("@dischargeDate",
dischargeDate.Value)
        Else
            cmdAdmission.Parameters.AddWithValue("@dischargeDate",
DBNull.Value)
        End If
        cmdAdmission.ExecuteNonQuery()
    End Using

    ' Note: The ADMITTED_PATIENT table is handled by the
TRG_ADMISSION_INSERTION trigger.
    ' The ROOMS table's COUNT_OF_PERSONS is handled by
TRG_ROOMS_ADMISSION_UPDATE trigger.

    transaction.Commit()
    lblMessage.Text = " <b style='color: green;'> Patient admitted
successfully! </b>"
    ' Clear form fields and refresh dropdowns
    ddlAppointments.SelectedValue = ""
    ddlRooms.SelectedValue = ""
    txtAdmissionDate.Value = DateTime.Now.ToString("yyyy-MM-ddTHH:mm")
    txtDischargeDate.Value = ""
    PopulateAppointmentsDropdown() ' Refresh to remove admitted
appointment
    PopulateRoomsDropdown() ' Refresh to update room count
Catch ex As Exception
    If transaction IsNot Nothing Then
        transaction.Rollback()
    End If
    lblMessage.Text = "Error admitting patient: " & ex.Message
    lblMessage.ForeColor = System.Drawing.Color.Red
Finally
    ' Connection and command will be closed/disposed by Using blocks
End Try
End Using
End Sub

End Class

```

Admit_patient.aspx

```

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

<!DOCTYPE html>

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

<head runat="server">
    <title>Admit Patient</title>
    <link href="styles.css" rel="stylesheet" type="text/css" />
</head>
<body>
    <h2>Admit Patient</h2>

```

```

<form id="form1" runat="server" CssClass="default-form-style">
  <div class="form-section">
    <h3>Admit a Patient</h3>

    <label for="ddlAppointments">Select Appointment to Admit:</label>
    <asp:DropDownList ID="ddlAppointments" runat="server" CssClass="form-
control" AppendDataBoundItems="True">
      <asp:ListItem Text="-- Select an Appointment --"
Value=""></asp:ListItem>
    </asp:DropDownList><br /><br />

    <label for="ddlRooms">Select Room:</label>
    <asp:DropDownList ID="ddlRooms" runat="server" CssClass="form-control"
AppendDataBoundItems="True">
      <asp:ListItem Text="-- Select a Room --" Value=""></asp:ListItem>
    </asp:DropDownList><br /><br />

    <label for="txtAdmissionDate">Admission Date & Time:</label>
    <input type="datetime-local" id="txtAdmissionDate" runat="server"
required /><br /><br />

    <label for="txtDischargeDate">Expected Discharge Date & Time
(Optional):</label>
    <input type="datetime-local" id="txtDischargeDate" runat="server" /><br
/><br />

    <div class="button-container">
      <asp:Button ID="btnAdmitPatient" runat="server" Text="Admit Patient"
OnClick="btnAdmitPatient_Click" CssClass="asp-button" />
    </div>
  </div>

  <asp:Label ID="lblMessage" runat="server" CssClass="message-
label"></asp:Label>
</form>
<a href="Receptionist.aspx" class="back-link">Back to Dashboard</a>
</body>
</html>

```

Appointments_Rec.aspx.vb

```

Imports System.Data.SqlClient
Imports System.Data

Public Class Appointments_Rec
  Inherits System.Web.UI.Page

  Private ReadOnly constr As String = "Data source = localhost; Initial Catalog =
HMS; Integrated Security=True;"

  Protected Sub Page_Load(ByVal sender As Object, ByVal e As System.EventArgs)
Handles Me.Load
    If Not IsPostBack Then
      ' Check if the user is logged in and is a Receptionist
      If Session("UserID") Is Nothing OrElse Session("UserType") Is Nothing
OrElse Session("UserType").ToString() <> "Receptionist" Then

```

```

        Response.Redirect("Login.aspx") ' Redirect to login if not
authenticated or not a Receptionist
    Else
        PopulatePatientsDropdown()
        PopulateDoctorsDropdown()
        txtAppointmentDate.Value = DateTime.Now.ToString("yyyy-MM-ddTHH:mm")
' Set default to current date/time
    End If
End If
End Sub

Private Sub PopulatePatientsDropdown()
    Using con As New SqlConnection(constr)
        ' Query to get all patient details for the dropdown
        Dim query As String = "SELECT PATIENT_ID, PATIENT_NAME FROM PATIENT
ORDER BY PATIENT_NAME ASC"
        Using cmd As New SqlCommand(query, con)
            Try
                con.Open()
                ddlPatients.DataSource = cmd.ExecuteReader()
                ddlPatients.DataTextField = "PATIENT_NAME"
                ddlPatients.DataValueField = "PATIENT_ID"
                ddlPatients.DataBind()
                ' The default "-- Select a Patient --" item is already added in
ASPX
            Catch ex As Exception
                lblMessage.Text = "Error loading patients: " & ex.Message
                lblMessage.ForeColor = System.Drawing.Color.Red
            End Try
        End Using
    End Using
End Sub

Private Sub PopulateDoctorsDropdown()
    Using con As New SqlConnection(constr)
        ' Query to get doctor details from the EMPLOYEE table where designation
is 'Doctor'
        Dim query As String = "SELECT EMPLOYEE_ID, EMPLOYEE_NAME FROM EMPLOYEE
WHERE EMPLOYEE_DESIGNATION = 'Doctor' ORDER BY EMPLOYEE_NAME ASC"
        Using cmd As New SqlCommand(query, con)
            Try
                con.Open()
                ddlDoctors.DataSource = cmd.ExecuteReader()
                ddlDoctors.DataTextField = "EMPLOYEE_NAME"
                ddlDoctors.DataValueField = "EMPLOYEE_ID"
                ddlDoctors.DataBind()
                ' The default "-- Select a Doctor --" item is already added in
ASPX
            Catch ex As Exception
                lblMessage.Text = "Error loading doctors: " & ex.Message
                lblMessage.ForeColor = System.Drawing.Color.Red
            End Try
        End Using
    End Using
End Sub

Protected Sub btnBookAppointment_Click(ByVal sender As Object, ByVal e As
System.EventArgs) Handles btnBookAppointment.Click

```

```

Dim patientId As String = ddlPatients.SelectedValue
Dim doctorId As String = ddlDoctors.SelectedValue
Dim appointmentDateTime As DateTime

If String.IsNullOrEmpty(patientId) Then
    lblMessage.Text = "Please select a patient."
    lblMessage.ForeColor = System.Drawing.Color.Orange
    Return
End If

If String.IsNullOrEmpty(doctorId) Then
    lblMessage.Text = "Please select a doctor."
    lblMessage.ForeColor = System.Drawing.Color.Orange
    Return
End If

If Not DateTime.TryParse(txtAppointmentDate.Value, appointmentDateTime) Then
    lblMessage.Text = "Please enter a valid appointment date and time."
    lblMessage.ForeColor = System.Drawing.Color.Orange
    Return
End If

Using con As New SqlConnection(constr)
    ' Since APPOINTMENT_ID is IDENTITY, we don't include it in the INSERT
    statement.
    Dim insertSQL As String = "INSERT INTO APPOINTMENT (EMPLOYEE_ID,
PATIENT_ID, APPOINTMENT_DATE) VALUES (@employeeId, @patientId, @appointmentDate)"
    Using cmd As New SqlCommand(insertSQL, con)
        cmd.Parameters.AddWithValue("@employeeId", doctorId)
        cmd.Parameters.AddWithValue("@patientId", patientId)
        cmd.Parameters.AddWithValue("@appointmentDate", appointmentDateTime)

        Try
            con.Open()
            cmd.ExecuteNonQuery()
            lblMessage.Text = " <b style='color: green;'> Appointment booked
successfully! </b>"
            ' Clear form fields
            ddlPatients.SelectedValue = ""
            ddlDoctors.SelectedValue = ""
            txtAppointmentDate.Value = DateTime.Now.ToString("yyyy-MM-
ddTHH:mm") ' Reset to current date/time
        Catch ex As Exception
            lblMessage.Text = "Error booking appointment: " & ex.Message
            lblMessage.ForeColor = System.Drawing.Color.Red
        Finally
            ' Connection and command will be closed/disposed by Using blocks
        End Try
    End Using
End Using
End Sub

End Class

```

Appointments_Rec.aspx

```

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

<!DOCTYPE html>

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

<head runat="server">
    <title>Receptionist: Make Appointment</title>
    <link href="styles.css" rel="stylesheet" type="text/css" />
</head>
<body>
    <h2>Make Appointment for Patient</h2>

    <form id="form1" runat="server" CssClass="default-form-style">
        <div class="form-section">
            <h3>Make New Appointment</h3>

            <label for="ddlPatients">Select Patient:</label>
            <asp:DropDownList ID="ddlPatients" runat="server" CssClass="form-
control" AppendDataBoundItems="True">
                <asp:ListItem Text="-- Select a Patient --" Value=""></asp:ListItem>
            </asp:DropDownList><br /><br />

            <label for="ddlDoctors">Select Doctor:</label>
            <asp:DropDownList ID="ddlDoctors" runat="server" CssClass="form-control"
AppendDataBoundItems="True">
                <asp:ListItem Text="-- Select a Doctor --" Value=""></asp:ListItem>
            </asp:DropDownList><br /><br />

            <label for="txtAppointmentDate">Appointment Date & Time:</label>
            <input type="datetime-local" id="txtAppointmentDate" runat="server"
required /><br /><br />

            <div class="button-container">
                <asp:Button ID="btnBookAppointment" runat="server" Text="Book
Appointment" OnClick="btnBookAppointment_Click" CssClass="asp-button" />
            </div>
        </div>

        <asp:Label ID="lblMessage" runat="server" CssClass="message-
label"></asp:Label>
    </form>

    <a href="Receptionist.aspx" class="back-link">Back to Dashboard</a>

</body>
</html>

```

Generate_Invoice.aspx.vb

```

Imports System.Data.SqlClient
Imports System.Data

Public Class Generate_Invoice

```

```

Inherits System.Web.UI.Page

Private ReadOnly constr As String = "Data source = Localhost; Initial Catalog =
HMS; Integrated Security=True;"

Protected Sub Page_Load(ByVal sender As Object, ByVal e As System.EventArgs)
Handles Me.Load
    If Not IsPostBack Then
        ' Check if the user is logged in and is a Receptionist
        If Session("UserID") Is Nothing OrElse Session("UserType") Is Nothing
OrElse Session("UserType").ToString() <> "Receptionist" Then
            Response.Redirect("Login.aspx") ' Redirect to login if not
authenticated or not a Receptionist
        Else
            PopulatePatientsDropdown()
        End If
    End If
End Sub

Private Sub PopulatePatientsDropdown()
    Using con As New SqlConnection(constr)
        ' Query to get all patient details for the dropdown
        Dim query As String = "SELECT PATIENT_ID, PATIENT_NAME FROM PATIENT
ORDER BY PATIENT_NAME ASC"
        Using cmd As New SqlCommand(query, con)
            Try
                con.Open()
                ddlPatients.DataSource = cmd.ExecuteReader()
                ddlPatients.DataTextField = "PATIENT_NAME"
                ddlPatients.DataValueField = "PATIENT_ID"
                ddlPatients.DataBind()
                ' The default "-- Select a Patient --" item is already added in
                ASPX
            Catch ex As Exception
                lblMessage.Text = "Error loading patients: " & ex.Message
                lblMessage.ForeColor = System.Drawing.Color.Red
            End Try
        End Using
    End Using
End Sub

Private Function GetNextInvoiceId() As Integer
    Dim nextId As Integer = 1 ' Default starting ID
    Using con As New SqlConnection(constr)
        Dim query As String = "SELECT ISNULL(MAX(INVOICE_ID), 0) + 1 FROM
INVOICE"
        Using cmd As New SqlCommand(query, con)
            Try
                con.Open()
                nextId = Convert.ToInt32(cmd.ExecuteScalar())
            Catch ex As Exception
                ' Log the error, but allow the process to continue with default
                ID or raise a custom error
                lblMessage.Text = "Warning: Could not retrieve next Invoice ID.
Using default ID 1. Error: " & ex.Message
                lblMessage.ForeColor = System.Drawing.Color.Orange
            End Try
        End Using
    End Using
End Function

```



```

        End Using
        Return nextId
    End Function

    Protected Sub btnGenerateInvoice_Click(ByVal sender As Object, ByVal e As
System.EventArgs) Handles btnGenerateInvoice.Click
        Dim patientId As String = ddlPatients.SelectedValue
        Dim cost As Decimal
        Dim paymentMethod As String = ddlPaymentMethod.SelectedValue

        If String.IsNullOrEmpty(patientId) Then
            lblMessage.Text = "Please select a patient."
            lblMessage.ForeColor = System.Drawing.Color.Orange
            Return
        End If

        If Not Decimal.TryParse(txtCost.Value, cost) OrElse cost <= 0 Then
            lblMessage.Text = "Please enter a valid positive cost."
            lblMessage.ForeColor = System.Drawing.Color.Orange
            Return
        End If

        If String.IsNullOrEmpty(paymentMethod) Then
            lblMessage.Text = "Please select a payment method."
            lblMessage.ForeColor = System.Drawing.Color.Orange
            Return
        End If

        Dim newInvoiceId As Integer = GetNextInvoiceId()

        Using con As New SqlConnection(constr)
            Dim insertSQL As String = "INSERT INTO INVOICE (INVOICE_ID, PATIENT_ID,
COST, PAYMENT_METHOD) VALUES (@invoiceId, @patientId, @cost, @paymentMethod)"
            Using cmd As New SqlCommand(insertSQL, con)
                cmd.Parameters.AddWithValue("@invoiceId", newInvoiceId)
                cmd.Parameters.AddWithValue("@patientId", patientId)
                cmd.Parameters.AddWithValue("@cost", cost)
                cmd.Parameters.AddWithValue("@paymentMethod", paymentMethod)

                Try
                    con.Open()
                    cmd.ExecuteNonQuery()
                    lblMessage.Text = String.Format(" <b style='color: green;'>
Invoice {0} generated successfully for {1}! </b>", newInvoiceId, patientId)
                    ' Clear form fields
                    ddlPatients.SelectedValue = ""
                    txtCost.Value = ""
                    ddlPaymentMethod.SelectedValue = ""
                Catch ex As Exception
                    lblMessage.Text = "Error generating invoice: " & ex.Message
                    lblMessage.ForeColor = System.Drawing.Color.Red
                Finally
                    ' Connection and command will be closed/disposed by Using blocks
                End Try
            End Using
        End Using
    End Sub
End Sub

```

End Class

Generate_Invoice.aspx

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

<!DOCTYPE html>

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

<head runat="server">
    <title>Generate Invoice</title>
    <link href="styles.css" rel="stylesheet" type="text/css" />
</head>
<body>
    <h2>Generate Invoice</h2>

    <form id="form1" runat="server" CssClass="default-form-style">
        <div class="form-section">
            <h3>Create New Invoice</h3>

            <label for="ddlPatients">Select Patient:</label>
            <asp:DropDownList ID="ddlPatients" runat="server" CssClass="form-
control" AppendDataBoundItems="True">
                <asp:ListItem Text="-- Select a Patient --" Value=""></asp:ListItem>
            </asp:DropDownList><br /><br />

            <label for="txtCost">Cost:</label>
            <input type="number" id="txtCost" runat="server" step="0.01" required
/><br />

            <label for="ddlPaymentMethod">Payment Method:</label>
            <asp:DropDownList ID="ddlPaymentMethod" runat="server" CssClass="form-
control" AppendDataBoundItems="True">
                <asp:ListItem Text="-- Select Method --" Value=""></asp:ListItem>
                <asp:ListItem Text="Cash" Value="Cash"></asp:ListItem>
                <asp:ListItem Text="Credit Card" Value="Credit Card"></asp:ListItem>
                <asp:ListItem Text="Debit Card" Value="Debit Card"></asp:ListItem>
                <asp:ListItem Text="Online Transfer" Value="OnLine
Transfer"></asp:ListItem>
            </asp:DropDownList><br /><br />

            <div class="button-container">
                <asp:Button ID="btnGenerateInvoice" runat="server" Text="Generate
Invoice" OnClick="btnGenerateInvoice_Click" CssClass="asp-button" />
            </div>
        </div>

        <asp:Label ID="lblMessage" runat="server" CssClass="message-
label"></asp:Label>
    </form>
    <a href="Receptionist.aspx" class="back-link">Back to Dashboard</a>
</body>
</html>
```

View_Employees.aspx.vb

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

Public Class View_Employees
    Inherits System.Web.UI.Page

    Private ReadOnly constr As String = "Data source = localhost; Initial Catalog = HMS; Integrated Security=True;"

    Protected Sub Page_Load(ByVal sender As Object, ByVal e As System.EventArgs)
        Handles Me.Load
            If Not IsPostBack Then
                ' Check if the user is logged in and is a Receptionist
                If Session("UserID") Is Nothing OrElse Session("UserType") Is Nothing
                OrElse Session("UserType").ToString() <> "Receptionist" Then
                    Response.Redirect("Login.aspx") ' Redirect to login if not
                    authenticated or not a Receptionist
                Else
                    BindEmployeesGridView()
                End If
            End If
        End Sub

    Private Sub BindEmployeesGridView()
        Using con As New SqlConnection(constr)
            ' Query to get all employee details from the EMPLOYEE_VIEW
            Dim query As String = "SELECT EMPLOYEE_NAME, EMPLOYEE_DEPARTMENT,
EMPLOYEE_DESIGNATION, QUALIFICATION, EMPLOYEE_CONTACT_NUMBER, ROOM_ID FROM
EMPLOYEE_VIEW ORDER BY EMPLOYEE_NAME ASC"
            Using cmd As New SqlCommand(query, con)
                Try
                    con.Open()
                    Dim dt As New DataTable()
                    dt.Load(cmd.ExecuteReader())
                    gvEmployees.DataSource = dt
                    gvEmployees.DataBind()
                    If dt.Rows.Count = 0 Then
                        lblMessage.Text = "No employee records found."
                        lblMessage.ForeColor = System.Drawing.Color.Orange
                    Else
                        lblMessage.Text = "" ' Clear message if data is loaded
                    End If
                Catch ex As Exception
                    lblMessage.Text = "Error loading employee details: " &
ex.Message
                    lblMessage.ForeColor = System.Drawing.Color.Red
                End Try
            End Using
        End Using
    End Sub

End Class
```

View_Employees.aspx

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

<!DOCTYPE html>

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

<head runat="server">
  <title>View Employees</title>
  <link href="styles.css" rel="stylesheet" type="text/css" />
</head>
<body>
  <h2>Employees Detail</h2>

  <form id="form1" runat="server" CssClass="default-form-style">
    <div class="form-section">
      <h3>All Employee Details</h3>
      <div class="gridview-container">
        <asp:GridView ID="gvEmployees" runat="server"
AutoGenerateColumns="True" HeaderStyle-CssClass="gridview-header" RowStyle-
CssClass="gridview-row">
          </asp:GridView>
        </div>
      </div>

      <asp:Label ID="lblMessage" runat="server" CssClass="message-
label"></asp:Label>
    </form>

    <a href="Receptionist.aspx" class="back-link">Back to Dashboard</a>

</body>
</html>
```

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