Pakistan Institute of Engineering and Applied Sciences



Report

Lab-05: Implementation of Project Functionalities (Art Vault)

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Registration No: 03-3-1-033-2022

Course Name: Internet application development

Instructor: Dr. Irfan Hameed

Consider the database development project developed during previous semester. A complete database design and development was carried out in previous semester project as detailed in your project report in printed form.

In addition during one of previous labs (see reference below) you were required to develop web interfaces on paper and then develop html prototypes for various functionalities of your database project mentioned as above.

Now the next task is to transform paper based and html based prototype interfaces into full scale working web forms for realization of various functionalities of your project. Ideally you are required to develop all web forms for implementing various project functionalities.

Reference: Lab 3 Q1) Consider the project database designed and implemented during previous semester i.e. Fall 2024. Its implementation was done using structured query language during previous semester. Try to recall major relations in your project database. You already have its report in printed form.

There is a need to implement a web based solution for above mentioned database. The web based solution must incorporate various functionalities of your project.

- (1) Registration of Student/Patient/Passenger/Customer, or whatever is applicable in your project.
- (2) Search facilities including partial matches
- (3) Any other project specific functionalities
- (4) Role based access control
- (5) Payment system (if required)

As a first step design above mentioned (i) to (v) user interfaces using paper and pencil.

Next write appropriate html for creating (i) to (v) user interface prototypes.

Create links for navigation among above pages.

Design a menu using list and styles.

Add help pages for user guidance.

Either use table for layout or may opt for flow based layout.

Test user interface prototypes in browser.

Experiment with style sheets.

You are strictly advised to refrain from using any AI tool during lab work. (0 score will be given for any such effort). Just follow codes as listed in book or as demonstrated in class from time to time.

- Q1) Write code (code behind only) for any two of the interfaces below?
- Q2) Draw corresponding graphical user interface as rendered in browser?

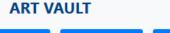
home.aspx:

```
<%@ Page Language="VB" AutoEventWireup="false" CodeFile="home.aspx.vb"</pre>
Inherits="Default3" %>
<!DOCTYPE html>
<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
   <title>ARTVAULT</title>
    <link rel="stylesheet" href="stylesheet.css" type="text/css" />
</head>
<body>
   <form id="form1" runat="server">
       <div>
           <h1>ART VAULT</h1>
               <a href="./Customer_reg.aspx">Customer Registration</a>
               <a href="./Searching_customer.aspx">Searching for</a>
Customer</a>
               <a href="./AllCustomers.aspx">Show All Customers</a>
               <a href="./Update_Customer.aspx">Update Customer Data</a>
           </div>
       <div>
           >
               <strong>IAD Problem Statement</strong><br />
               Consider the database development project developed during previous
semester. A complete database design and development was carried out in previous
semester project as detailed in your project report in printed form.
               In addition during one of previous labs (see reference below) you
were required to develop web interfaces on paper and then develop html prototypes
for various functionalities of your database project mentioned as above.
               Now the next task is to transform paper based and html based
prototype interfaces into full scale working web forms for realization of various
functionalities of your project. Ideally you are required to develop all web forms
for implementing various project functionalities.
               <br /><strong> Reference: Lab 3 01) </strong>
               Consider the Pine Valley Furniture Company database designed and
```

implemented using structured query language

```
during previous semester. Try to recall major relations in the
database (CUSTOMER_T, ORDER_T, ORDER_LINE_T,
                and PRODUCT_T).
                <br />
                <br />
                There is a need to implement a web-based solution for the above-
mentioned database. The web-based solution must
                incorporate the following functionalities:
                <br />
                i) New Customer Registration
                <br />
                ii) Searching of Products
                <br />
                iii) Products Selection and Order Placement
                <br />
                iv) Product Catalog Update
                <br />
                v) Payment Provision
                <br />
                <br />
                As a first step, design the above-mentioned (i) to (v) user
interfaces using paper and pencil.
                Then write appropriate HTML for creating the interface prototypes.
                Create links for navigation among pages, design a styled menu, add
help pages,
                and test interfaces in the browser. Experiment with style sheets.
            </div>
    </form>
</body>
</html>
home.aspx.vb:
```

```
Partial Class Default3
Inherits System.Web.UI.Page
End Class
```



Customer Registration Searching for Customer

Show All Customers

Update Customer Data

IAD Problem Statement

Consider the database development project developed during previous semester. A complete database design and development was carried out in previous semester project as detailed in your project report in printed form. In addition during one of previous labs (see reference below) you were required to develop web interfaces on paper and then develop html prototypes for various functionalities of your database project mentioned as above. Now the next task is to transform paper based and html based prototype interfaces into full scale working web forms for realization of various functionalities of your project. Ideally you are required to develop all web forms for implementing various project functionalities.

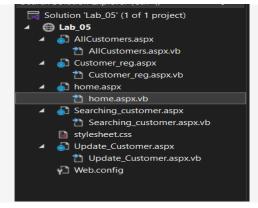
Reference: Lab 3 Q1) Consider the Pine Valley Furniture Company database designed and implemented using structured query language during previous semester. Try to recall major relations in the database (CUSTOMER_T, ORDER_T, ORDER_LINE_T, and PRODUCT_T).

There is a need to implement a web-based solution for the above-mentioned database. The web-based solution must incorporate the following functionalities:

- i) New Customer Registration
- ii) Searching of Products
- iii) Products Selection and Order Placement
- iv) Product Catalog Update
- v) Payment Provision

As a first step, design the above-mentioned (i) to (v) user interfaces using paper and pencil. Then write appropriate HTML for creating the interface prototypes. Create links for navigation among pages, design a styled menu, add help pages, and test interfaces in the browser. Experiment with style sheets.

Folder structure:



Customer_reg.aspx:

```
<%@ Page Language="VB" AutoEventWireup="false" CodeFile="Customer_reg.aspx.vb"</pre>
Inherits="_Default" %>
<!DOCTYPE html>
<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title>New Customer Registration</title>
    <link rel="stylesheet" href="stylesheet.css" type="text/css" />
</head>
<body>
    <form class="registration-form" id="form1" runat="server">
        <h1>New Customer Registration</h1>
        <div id="message_box" runat="server"></div>
        <label>
            Customer ID:
            <input type="text" id="person_id" name="customer_id" class="input-data"</pre>
required="required" runat="server" /></label><br />
        <label>
            First Name:
            <input type="text" id="first_name" name="first_name" class="input-data"</pre>
required="required" runat="server" /></label><br />
        <label>
            Last Name:
            <input type="text" id="last_name" name="last_name" class="input-data"</pre>
required="required" runat="server" /></label><br />
        <label>
            Email:
            <input type="email" id="email" name="email" class="input-data"</pre>
required="required" runat="server" /></label><br />
        <label>
            Phone Number:
            <input type="text" id="phone" name="phone" class="input-data"</pre>
required="required" runat="server" /></label><br />
        <label>
            Gender:
                <select id="gender" name="gender" class="input-data"</pre>
required="required" runat="server">
                     <option value="M">Male</option>
                     <option value="F">Female</option>
                     <option value="0">Other</option>
                </select>
        </label>
        <br />
        <label>
            <input type="text" id="city" name="city" class="input-data"</pre>
required="required" runat="server" /></label><br />
        <label>
            State (2-letter):
            <input type="text" id="state" name="state" class="input-data"</pre>
maxlength="2" required="required" runat="server" /></label><br />
        <label>
            Postal Code:
```

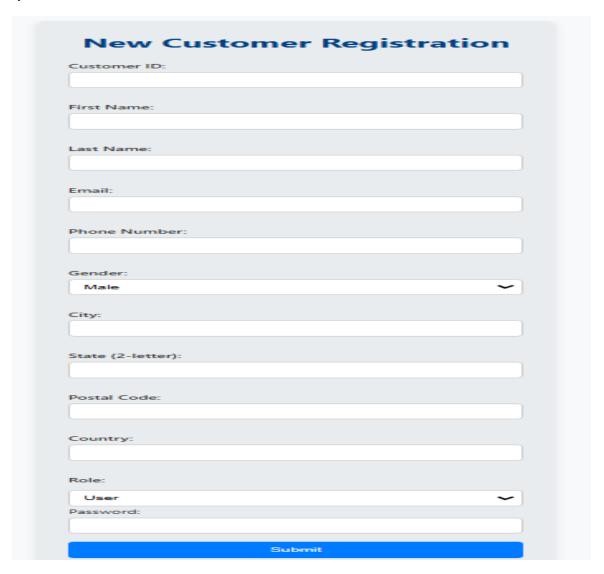
```
<input type="text" id="postal_code" name="postal_code" class="input-</pre>
data" required="required" runat="server" /></label><br />
        <label>
            Country:
            <input type="text" id="country" name="country" class="input-data"</pre>
required="required" runat="server" /></label><br />
        <label for="role">Role:</label>
        <select id="role" class="input-data" runat="server" required>
            <option value="" selected disabled>User</option>
            <option value="Artist">Artist</option>
            <option value="Customer">Customer</option>
        </select>
        Password:
            <input type="password" id="password" name="password" class="input-data"</pre>
required="required" runat="server" /></label><br />
        <input id="add" class="submit-button" type="submit"</pre>
runat="server">Register</input>
    </form>
</body>
</html>
```

Customer_reg.aspx.vb:

```
Imports System.Data
Imports System.Data.SqlClient
Imports System.Security.Policy
Imports System.ServiceModel.Channels
Partial Class _Default
    Inherits System.Web.UI.Page
    Dim is_error As Boolean = False
    Private Sub Register(sender As Object, e As EventArgs) Handles add.ServerClick
        Dim constr As String
        constr = "Data Source= localhost; Initial Catalog= PVFCARTVAULT; User
ID=Hammad; Password= Hammad"
        Dim con As New SqlConnection
        con.ConnectionString = constr
        Dim cmd As New SqlCommand
        cmd.Connection = con
        cmd.CommandText = "INSERT INTO PERSON (PERSON_ID, FIRST_NAME, LAST_NAME,
EMAIL, PHONE_NO, GENDER, CITY, STATE, POSTAL_CODE, COUNTRY, ROLE, PASSWORD) "
        cmd.CommandText &= "VALUES ('" + person_id.Value + "', '"
        cmd.CommandText &= first_name.Value + "', '"
        cmd.CommandText &= last_name.Value + "',
        cmd.CommandText &= email.Value + "', '"
        cmd.CommandText &= phone.Value + "', '"
cmd.CommandText &= gender.Value + "', '"
        cmd.CommandText &= city.Value + "',
        cmd.CommandText &= state.Value + "', '"
        cmd.CommandText &= postal_code.Value + "',
        cmd.CommandText &= country.Value + "', '"
        cmd.CommandText &= role.Value + "', '"
        cmd.CommandText &= password.Value + "')"
        Try
            con.Open()
```

```
Dim insert As Integer = cmd.ExecuteNonQuery()
            If insert > 0 Then
                message_box.Style.Add("opacity", "1")
                message_box.InnerText = "Record Inserted Successfully"
                message_box.Style.Add("opacity", "1")
                message_box.InnerText = insert + " Record Inserted"
            End If
        Catch ex As Exception
            message_box.Style.Add("opacity", "1")
            message_box.InnerText = ex.Message
            is_error = True
        Finally
            If role.Value = "Customer" And is_error = False Then
                Dim account_creation_date As Date = Date.Now
                Dim formatted_date As String = account_creation_date.ToString("yyyy-
MM-dd")
                ' Response.Write("Account Creation Date: " & formatted_date)
                cmd.CommandText = "INSERT INTO CUSTOMER (CUSTOMER_ID,
ACCOUNT_CREATION_DATE) VALUES"
                cmd.CommandText &= "('" + person_id.Value + "', '"
                cmd.CommandText &= formatted_date + " ')"
                Dim insert_C As Integer = cmd.ExecuteNonQuery()
                'If insert_C > 0 Then
                     Response.Write("C Inserted Successfully")
                'Else
                     Response.Write("C Insertion Failed")
                'End If
            End If
            con.Close()
            cmd.Dispose()
        End Try
   End Sub
```

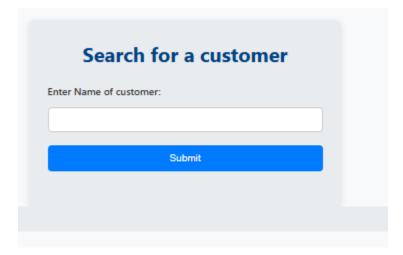
End Class



Searching_customer.aspx:

Searching_customer.aspx.vb:

```
Imports System.Data.SqlClient
Partial Class Default
                 Inherits System.Web.UI.Page
                 Private Sub Default_Load(sender As Object, e As EventArgs) Handles
search.ServerClick
                                 Dim constr As String
                                 constr = "Data Source= localhost; Initial Catalog= PVFCARTVAULT; User
ID=Hammad; Password= Hammad"
                                 Dim con As New SqlConnection
                                 con.ConnectionString = constr
                                 Dim cmd As New SalCommand
                                 cmd.Connection = con
                                 cmd.CommandText = "SELECT PERSON_ID, FIRST_NAME, LAST_NAME, EMAIL, PHONE_NO,
GENDER, CITY, STATE, POSTAL_CODE, COUNTRY, ROLE, PASSWORD FROM PERSON WHERE
FIRST_NAME = '"
                                 cmd.CommandText += search_name.Value + "'"
                                 Dim dr As SqlDataReader
                                 Try
                                                  con.Open()
                                                  dr = cmd.ExecuteReader
                                                 result.InnerHtml = ""
                                                 While dr.Read()
                                                                  result.InnerHtml += dr("PERSON_ID") & "&nbsp&nbsp&nbsp&nbsp" &
dr("FIRST_NAME") & "&nbsp&nbsp&nbsp&nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\
& dr("EMAIL") & "&nbsp&nbsp&nbsp&nbsp" & dr("PHONE_NO") & "&nbsp&nbsp&nbsp&nbsp
dr("GENDER") & "&nbsp&nbsp&nbsp&nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e4nbsp\u00e
dr("STATE") & "&nbsp&nbsp&nbsp&nbsp&nbsp & dr("POSTAL_CODE") & "&nbsp&nbsp&nbsp&nbsp & &
dr("COUNTRY") & "&nbsp&nbsp&nbsp&nbsp" & dr("ROLE") & "<br/>br>"
                                                  End While
                                 Catch ex As Exception
                                                  Response.Write(ex.Message)
                                 Finally
                                                  con.Close()
                                                  cmd.Dispose()
                                 End Try
                 End Sub
End Class
```



AllCustomers.aspx:

```
<%@ Page Language="VB" AutoEventWireup="false" CodeFile="AllCustomers.aspx.vb"</pre>
Inherits="AllCustomers" %>
<!DOCTYPE html>
<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
   <title>All Customer</title>
   <link rel="stylesheet" href="stylesheet.css" type="text/css" />
</head>
<body>
   <form id="form1" runat="server">
      <h1>All Customer Data</h1>
      <div runat="server">
         PERSON_ID
               FIRST_NAME
               LAST_NAME
               EMAIL
               PHONE_NO
               GENDER
               CITY
               STATE
               POSTAL_CODE
               COUNTRY
               ROLE
            </div>
   </form>
</body>
</html>
```

AllCustomers.aspx.vb:

```
Imports System.Data.SqlClient
Partial Class AllCustomers
    Inherits System.Web.UI.Page
    Private Sub AllCustomers_Load(sender As Object, e As EventArgs) Handles Me.Load
        Dim constr As String
        constr = "Data Source= localhost; Initial Catalog= PVFCARTVAULT; User
ID=Hammad; Password= Hammad"
        Dim con As New SqlConnection
        con.ConnectionString = constr
        Dim cmd As New SqlCommand
        cmd.Connection = con
        cmd.CommandText = "SELECT PERSON_ID, FIRST_NAME, LAST_NAME, EMAIL, PHONE_NO,
GENDER, CITY, STATE, POSTAL_CODE, COUNTRY, ROLE, PASSWORD FROM PERSON "
        Dim dr As SqlDataReader
        Try
            con.Open()
            dr = cmd.ExecuteReader
            While dr.Read()
                Dim row As HtmlTableRow = New HtmlTableRow()
                row.Attributes.Add("class", "row")
                Dim PERSON_ID As New HtmlTableCell()
                PERSON_ID.InnerText = dr("PERSON_ID").ToString()
                Dim FIRST_NAME As New HtmlTableCell()
                FIRST_NAME.InnerText = dr("FIRST_NAME").ToString()
                Dim LAST_NAME As New HtmlTableCell()
                LAST_NAME.InnerText = dr("LAST_NAME").ToString()
                Dim EMAIL As New HtmlTableCell()
                EMAIL.InnerText = dr("EMAIL").ToString()
                Dim PHONE_NO As New HtmlTableCell()
                PHONE_NO.InnerText = dr("PHONE_NO").ToString()
                Dim GENDER As New HtmlTableCell()
                GENDER.InnerText = dr("GENDER").ToString()
                Dim CITY As New HtmlTableCell()
                CITY.InnerText = dr("CITY").ToString()
                Dim STATE As New HtmlTableCell()
                STATE.InnerText = dr("STATE").ToString()
                Dim POSTAL_CODE As New HtmlTableCell()
                POSTAL_CODE.InnerText = dr("POSTAL_CODE").ToString()
                Dim COUNTRY As New HtmlTableCell()
                COUNTRY.InnerText = dr("COUNTRY").ToString()
                Dim ROLE As New HtmlTableCell()
                ROLE.InnerText = dr("ROLE").ToString()
                row.Cells.Add(PERSON_ID)
                row.Cells.Add(FIRST_NAME)
                row.Cells.Add(LAST_NAME)
                row.Cells.Add(EMAIL)
                row.Cells.Add(PHONE_NO)
                row.Cells.Add(GENDER)
                row.Cells.Add(CITY)
                row.Cells.Add(STATE)
                row.Cells.Add(POSTAL_CODE)
                row.Cells.Add(COUNTRY)
                row.Cells.Add(ROLE)
```

All Customer Data										
PERSON_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NO	GENDER	CITY	STATE	POSTAL_CODE	COUNTRY	ROLE
33102-7125684-7	Muhammad	Tahir	ahmadhassanch@hotmail.com	03238157166	М	Faisalabad	CA	38090	Pakistan	Customer
33102-7125686-3	Muhammad	Tahir	nwolf@example.com	03238157166	М	Faisalabad	NY	38090	Pakistan	
33102-7125686-6	Muhammad	Tahir	nwolf@example.com	03238157166	М	Faisalabad	NY	38090	Pakistan	Customer
33102-7125686-8	Muhammad	Tahir	nwolf@example.com	03238157166	М	Faisalabad	NY	38090	Pakistan	

Update_Customer.aspx:

```
<%@ Page Language="VB" AutoEventWireup="false" CodeFile="Update_Customer.aspx.vb"</pre>
Inherits="Update_Customer" %>
<!DOCTYPE html>
<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title>Update Customer</title>
    <link rel="stylesheet" href="stylesheet.css" type="text/css" />
</head>
<body>
    <form class="registration-form" id="form1" runat="server">
        <div runat="server">
            <h1>Update Customer</h1>
            <label for="search_cutomer">Enter Customer ID:</label>
            <input class="input-data" id="search_customer" type="text"</pre>
name="search_customer" value="" runat="server" /><br />
            <input class="submit-button" id="search" type="submit" value="Find</pre>
Customer" runat="server" /><br />
            <div runat="server" id="MessageBox">
            </div>
            <label>
                First Name:
            <input type="text" id="first_name" name="first_name" class="input-data"</pre>
runat="server" /></label><br />
            <label>
```

```
Last Name:
            <input type="text" id="last_name" name="last_name" class="input-data"</pre>
runat="server" /></label><br />
            <label>
            <input type="email" id="email" name="email" class="input-data"</pre>
runat="server" /></label><br />
            <label>
                 Phone Number:
            <input type="text" id="phone" name="phone" class="input-data"</pre>
runat="server" /></label><br />
            <label>
            <input type="text" id="city" name="city" class="input-data"</pre>
runat="server" /></label><br />
            <label>
                 State (2-letter):
            <input type="text" id="state" name="state" class="input-data"</pre>
maxlength="2" runat="server" /></label><br />
            <label>
                 Postal Code:
            <input type="text" id="postal_code" name="postal_code" class="input-</pre>
data" runat="server" /></label><br />
            <label>
                 Country:
            <input type="text" id="country" name="country" class="input-data"</pre>
runat="server" /></label><br />
            <label for="password">
                 Password:
        <input type="text" id="password" name="password" class="input-data"</pre>
runat="server" /></label><br />
            <input id="update_btn" class="submit-button" type="submit"</pre>
runat="server" value="Update Customer" />
        </div>
    </form>
</body>
</html>
```

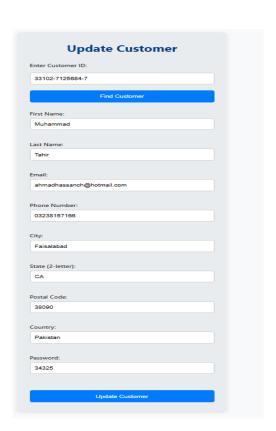
Update Customer.aspx.aspx.vb:

```
Imports System.Data.SqlClient
Imports ASP

Partial Class Update_Customer
    Inherits System.Web.UI.Page
    Private Sub Default_Load(sender As Object, e As EventArgs) Handles
search.ServerClick
    Dim constr As String
    Dim person_id As String
    constr = "Data Source= localhost; Initial Catalog= PVFCARTVAULT; User
ID=Hammad; Password= Hammad"
    Dim con As New SqlConnection
    con.ConnectionString = constr
    Dim cmd As New SqlCommand
```

```
cmd.Connection = con
        cmd.CommandText = "SELECT PERSON_ID, FIRST_NAME, LAST_NAME, EMAIL, PHONE_NO,
GENDER, CITY, STATE, POSTAL_CODE, COUNTRY, ROLE, PASSWORD FROM PERSON WHERE
PERSON_ID = '"
        cmd.CommandText += search_customer.Value + "'"
        Dim dr As SqlDataReader
        Try
            con.Open()
            dr = cmd.ExecuteReader
            If dr.Read Then
                person_id = dr("PERSON_ID").ToString()
                first_name.Value = dr("FIRST_NAME").ToString()
                last_name.Value = dr("LAST_NAME").ToString()
                email.Value = dr("EMAIL").ToString()
                phone.Value = dr("PHONE_NO").ToString
                city.Value = dr("CITY").ToString()
                state.Value = dr("STATE").ToString()
                postal_code.Value = dr("POSTAL_CODE").ToString()
                country.Value = dr("COUNTRY").ToString()
                password.Value = dr("PASSWORD").ToString()
                update_btn.Visible = True
            Else
                update_btn.Visible = False
            End If
            'Result.InnerHtml = ""
            'While dr.Read()
            'Result.InnerHtml += dr("PERSON_ID") & "&nbsp&nbsp&nbsp&nbsp" &
& dr("EMAIL") & "&nbsp&nbsp&nbsp&nbsp&nbsp" & dr("PHONE_NO") & "&nbsp&nbsp&nbsp&nbsp" &
dr("GENDER") & "&nbsp&nbsp&nbsp&nbsp" & dr("CITY") & "&nbsp&nbsp&nbsp&nbsp" &
dr("STATE") & "&nbsp&nbsp&nbsp&nbsp&nbsp & dr("POSTAL_CODE") & "&nbsp&nbsp&nbsp&nbsp & dr("POSTAL_CODE") & "&nbsp&nbsp&nbsp&nbsp
dr("COUNTRY") & "&nbsp&nbsp&nbsp&nbsp" & dr("ROLE") & "<br>"
            ' End While
        Catch ex As Exception
            Response.Write(ex.Message)
        Finally
            con.Close()
            cmd.Dispose()
        End Try
    End Sub
    Private Sub update_date(sender As Object, e As EventArgs) Handles
update_btn.ServerClick
        Dim constr As String
        constr = "Data Source= localhost; Initial Catalog= PVFCARTVAULT; User
ID=Hammad; Password= Hammad"
        Dim con As New SqlConnection
        con.ConnectionString = constr
        Dim cmd As New SqlCommand
        cmd.Connection = con
        cmd.CommandText = "UPDATE PERSON SET FIRST_NAME = '"
        cmd.CommandText += first_name.Value + "', LAST_NAME = '"
cmd.CommandText += last_name.Value + "', EMAIL = '"
        cmd.CommandText += email.Value + "', PHONE_NO = '"
```

```
cmd.CommandText += phone.Value + "', CITY = '"
cmd.CommandText += city.Value + "', STATE = '"
cmd.CommandText += state.Value + "', POSTAL_CODE = '"
         cmd.CommandText += postal_code.Value + "', COUNTRY = '"
         cmd.CommandText += country.Value + "', PASSWORD = '"
         cmd.CommandText += password.Value + "' WHERE PERSON_ID = '"
         cmd.CommandText += search_customer.Value + "'"
         Try
             con.Open()
             Dim rowsAffected As Integer = cmd.ExecuteNonQuery()
             If rowsAffected > 0 Then
                  MessageBox.InnerText = "Record updated successfully."
             Else
                  MessageBox.InnerText = "Record did not updated."
             End If
         Catch ex As Exception
             Response.Write(ex.Message)
         End Try
    End Sub
    Private Sub Update_Customer_Load(sender As Object, e As EventArgs) Handles
Me.Load
         Dim check As Boolean = False
         update_btn.Visible = False
    End Sub
End Class
```



stylesheet.css

```
* {
    margin: 0;
    padding: 0;
    box-sizing: border-box;
}
body {
    font-family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;
    background-color: #f8f9fa;
    color: #333;
    line-height: 1.6;
    padding: 20px;
    max-height: 100vh;
}
h1 {
    color: #004085;
    margin-bottom: 20px;
    text-align: center;
    font-size: 2rem;
}
ul {
    list-style-type: none;
    margin-bottom: 30px;
    display: flex;
    justify-content: center;
    gap: 20px;
    flex-wrap: wrap;
}
li a {
    display: block;
    padding: 10px 15px;
    text-decoration: none;
    background-color: #007bff;
    color: white;
    border-radius: 5px;
    transition: background-color 0.3s ease;
}
    li a:hover {
        background-color: #0056b3;
p {
    background-color: #e9ecef;
    padding: 20px;
    border-left: 5px solid #17a2b8;
    border-radius: 5px;
    font-size: 1.5rem;
    max-width: 1143px;
    margin: 0 auto;
}
```

```
.registration-form {
    max-width: 500px;
    margin: 0 auto;
    background-color: #E9ECEF;
    padding: 30px;
    border-radius: 10px;
    box-shadow: 0 4px 10px rgba(0,0,0,0.1);
}
    .registration-form label {
        display: block;
        margin-bottom: 10px;
        font-weight: 500;
        color: #333;
    }
    .registration-form .input-data {
        width: 100%;
        padding: 10px;
        border: 1px solid #ccc;
        border-radius: 6px;
        margin-top: 3px;
        font-size: 1rem;
    }
.submit-button {
    display: block;
    width: 100%;
    background-color: #007bff;
    color: #fff;
    padding: 12px;
    border: none;
    border-radius: 6px;
    font-size: 1rem;
    cursor: pointer;
    margin-top: 20px;
    transition: background-color 0.3s ease;
}
    .submit-button:hover {
        background-color: #0056b3;
.find-button {
    display: block;
    width: 100%;
    background-color: #007bff;
    color: #fff;
    padding: 12px;
    border: none;
    border-radius: 6px;
    font-size: 1rem;
    cursor: pointer;
    margin-bottom: 20px;
    transition: background-color 0.3s ease;
}
```

```
.find-button:hover {
        background-color: #0056b3;
}
#result {
    background-color: #e9ecef;
    padding: 20px;
    border-left: 5px solid #17a2b8;
    border-radius: 5px;
    font-size: 1.5rem;
    max-width: 100%;
    margin: 0 auto;
}
#display {
    width: 100%;
    border-collapse: collapse;
    margin: 20px 0;
    font-family: Arial, sans-serif;
    font-size: 14px;
    box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);
}
.row {
    background-color: #E9ECEF;
th, td {
    text-align: left;
    border: 1px solid #ccc;
    padding: 10px;
}
tr {
    background-color: #E9ECEF;
```