

## Lab 1 Report

### Problem Statement

#### Q1) Web-Based Solution for Pine Valley Furniture Company

Consider the Pine Valley Furniture Company database designed and implemented during the previous semester. Recall the major relations in the database, including:

CUSTOMER\_T

ORDER\_T

ORDER\_LINE\_T

PRODUCT\_T

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

New Customer Registration

Searching of Products

Product Selection and Order Placement

Product Catalog Update

Payment Provision

As a first step, design the above-mentioned user interfaces (i) to (v) using paper and pencil. Next, write appropriate HTML to create user interface prototypes for these functionalities.

Create navigation links among all pages. Design a menu using lists and CSS styles. Add help pages to guide users. You may use either table-based layout or flow-based layout. Test the user interface prototypes in a web browser and experiment with style sheets.

#### Q2) Incorporation of Business Intelligence

Try to incorporate business intelligence concepts into your project. You may consider the following options:

Transform the order processing system into a customer segmentation analysis platform

Add user profiling features into the basic order processing system

Implement targeted marketing strategies

Add a recommendation system feature into the project

## CODE

### 1. register.html

```
<!DOCTYPE html>

<html>

<head>

  <title>Register - Pine Valley Furniture</title>

  <style>

    body { font-family: Arial, sans-serif; background-color: #f4f6f9; margin: 0; }

    header { background-color: #2c3e50; color: white; padding: 20px; text-align: center; }

    ul { list-style-type: none; margin: 0; padding: 0; background-color: #34495e; overflow: hidden; text-align: center; }

    li { display: inline; }

    li a { color: white; padding: 14px 20px; display: inline-block; text-decoration: none; }

    li a:hover { background-color: #1abc9c; }

    .content { padding: 40px; text-align: center; }

    input[type="text"], input[type="email"], input[type="password"] { padding: 10px; margin: 10px; width: 250px; border-radius: 5px; border: 1px solid #ccc; }

    .gender { margin: 15px; font-size: 16px; }

    input[type="submit"] { background-color: #1abc9c; color: white; padding: 10px 25px; border: none; border-radius: 5px; font-size: 16px; cursor: pointer; }

    input[type="submit"]:hover { background-color: #16a085; }

    footer { margin-top: 80px; padding: 10px; background-color: #2c3e50; color: white; text-align: center; }

  </style>

</head>

<body>

<header><h1>Customer Registration</h1></header>

<ul>
```

```
<li><a href="lab1.html">Home</a></li>
<li><a href="register.html">Register</a></li>
<li><a href="products.html">Products</a></li>
<li><a href="order.html">Order</a></li>
<li><a href="catalog.html">Update Catalog</a></li>
<li><a href="payment.html">Payment</a></li>
</ul>
<div class="content">
  <h2>New Customer Registration Form</h2>
  <form>
    <input type="text" name="name" placeholder="Full Name" required><br>
    <input type="email" name="email" placeholder="Email" required><br>
    <input type="password" name="password" placeholder="Password" required><br>
    <input type="text" name="phone" placeholder="Phone Number" required><br>
    <input type="text" name="address" placeholder="Address" required><br>
    <div class="gender">
      Gender:
      <input type="radio" name="gender" value="Male" required> Male
      <input type="radio" name="gender" value="Female"> Female
    </div>
    <input type="submit" value="Register">
  </form>
</div>
<footer><p>&copy; 2026 Pine Valley Furniture</p></footer>
</body>
</html>
```

## OUTPUT:

**Customer Registration**

Home Register Products Order Update Catalog Payment

**New Customer Registration Form**

Full Name

Email

Password

Phone Number

Address

Gender:  Male  Female

Register

## 2. products.html

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<title>Products - Pine Valley Furniture</title>
```

```
<style>
```

```
body { font-family: Arial; background-color: #f4f6f9; margin: 0; }
```

```
header { background-color: #2c3e50; color: white; padding: 20px; text-align: center; }
```

```
ul { list-style-type: none; margin: 0; padding: 0; background-color: #34495e; overflow: hidden; text-align: center; }
```

```
li { display: inline; }
```

```
li a { color: white; padding: 14px 20px; display: inline-block; text-decoration: none; }
```

```
li a:hover { background-color: #1abc9c; }
```

```
.content { padding: 40px; text-align: center; }
```

```
input[type="text"] { padding: 10px; width: 250px; border-radius: 5px; border: 1px solid #ccc; }
```

```

    input[type="submit"] { background-color: #1abc9c; color: white; padding: 10px 25px; border: none;
border-radius: 5px; cursor: pointer; }

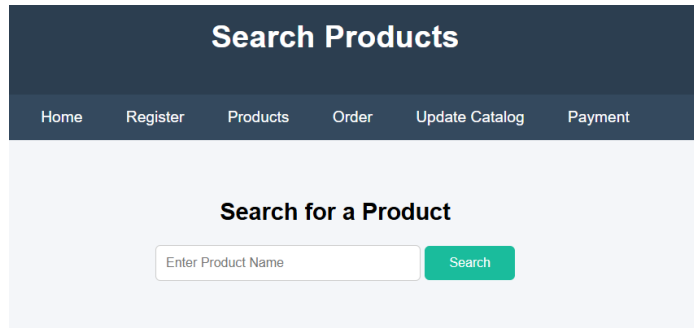
    input[type="submit"]:hover { background-color: #16a085; }

    footer { margin-top: 80px; padding: 10px; background-color: #2c3e50; color: white; text-align:
center; }

</style>
</head>
<body>
<header><h1>Search Products</h1></header>
<ul>
    <li><a href="lab1.html">Home</a></li>
    <li><a href="register.html">Register</a></li>
    <li><a href="products.html">Products</a></li>
    <li><a href="order.html">Order</a></li>
    <li><a href="catalog.html">Update Catalog</a></li>
    <li><a href="payment.html">Payment</a></li>
</ul>
<div class="content">
    <h2>Search for a Product</h2>
    <form>
        <input type="text" name="product" placeholder="Enter Product Name" required>
        <input type="submit" value="Search">
    </form>
</div>
<footer><p>&copy; 2026 Pine Valley Furniture</p></footer>
</body>
</html>

```

## OUTPUT:



The screenshot displays a web application interface. At the top, there is a dark blue navigation bar with the title "Search Products" in white. Below the navigation bar, there is a light blue header area with the text "Search for a Product" in bold. Underneath, there is a search form consisting of a text input field with the placeholder text "Enter Product Name" and a green "Search" button.

### 3. order.html

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<title>Order - Pine Valley Furniture</title>
```

```
<style>
```

```
body { font-family: Arial, sans-serif; background-color: #f4f6f9; margin: 0; }
```

```
header { background-color: #2c3e50; color: white; padding: 20px; text-align: center; }
```

```
ul { list-style-type: none; margin: 0; padding: 0; background-color: #34495e; overflow: hidden; text-align: center; }
```

```
li { display: inline; }
```

```
li a { color: white; padding: 14px 20px; display: inline-block; text-decoration: none; }
```

```
li a:hover { background-color: #1abc9c; }
```

```
.content { padding: 40px; text-align: center; }
```

```
input[type="text"], input[type="email"], input[type="number"] { padding: 10px; margin: 10px; width: 250px; border-radius: 5px; border: 1px solid #ccc; }
```

```
input[type="submit"] { background-color: #1abc9c; color: white; padding: 10px 25px; border: none; border-radius: 5px; font-size: 16px; cursor: pointer; }
```

```
input[type="submit"]:hover { background-color: #16a085; }
```

```
footer { margin-top: 80px; padding: 10px; background-color: #2c3e50; color: white; text-align: center; }
```

```
</style>
</head>
<body>
<header><h1>Place Your Order</h1></header>
<ul>
  <li><a href="lab1.html">Home</a></li>
  <li><a href="register.html">Register</a></li>
  <li><a href="products.html">Products</a></li>
  <li><a href="order.html">Order</a></li>
  <li><a href="catalog.html">Update Catalog</a></li>
  <li><a href="payment.html">Payment</a></li>
</ul>
<div class="content">
  <h2>Order Details</h2>
  <form>
    <input type="text" name="customer_name" placeholder="Full Name" required><br>
    <input type="email" name="email" placeholder="Email Address" required><br>
    <input type="text" name="city" placeholder="City" required><br>
    <input type="text" name="product_name" placeholder="Product Name" required><br>
    <input type="number" name="quantity" placeholder="Quantity" required><br>
    <input type="number" name="total_price" placeholder="Total Price" required><br>
    <input type="submit" value="Confirm Order">
  </form>
</div>
<footer><p>&copy; 2026 Pine Valley Furniture</p></footer>
</body>
</html>
```

## OUTPUT:

**Place Your Order**

Home Register Products Order Update Catalog Payment

**Order Details**

Full Name

Email Address

City

Product Name

Quantity

Total Price

Confirm Order

## 4. catalog.html

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
  <title>Update Catalog - Pine Valley Furniture</title>
```

```
  <style>
```

```
    body { font-family: Arial; background-color: #f4f6f9; margin: 0; }
```

```
    header { background-color: #2c3e50; color: white; padding: 20px; text-align: center; }
```

```
    ul { list-style-type: none; margin: 0; padding: 0; background-color: #34495e; overflow: hidden; text-align: center; }
```

```
    li { display: inline; }
```

```
    li a { color: white; padding: 14px 20px; display: inline-block; text-decoration: none; }
```

```
    li a:hover { background-color: #1abc9c; }
```

```
    .content { padding: 40px; text-align: center; }
```

```

    input[type="text"], input[type="number"] { padding: 10px; margin: 10px; width: 250px; border-
radius: 5px; border: 1px solid #ccc; }

    input[type="submit"] { background-color: #1abc9c; color: white; padding: 10px 25px; border: none;
border-radius: 5px; cursor: pointer; }

    input[type="submit"]:hover { background-color: #16a085; }

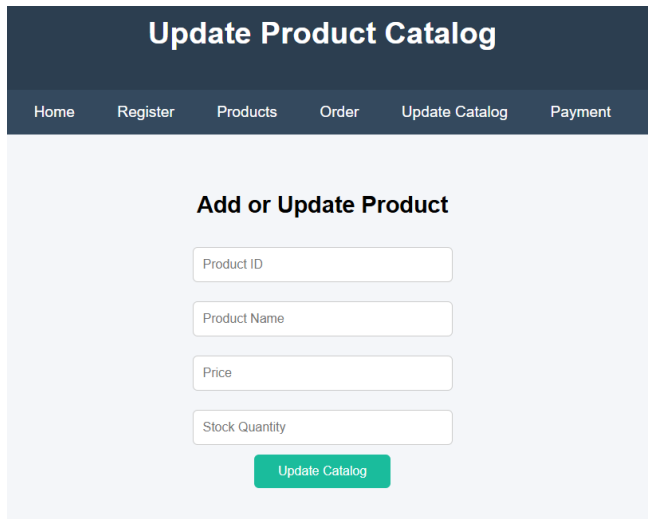
    footer { margin-top: 80px; padding: 10px; background-color: #2c3e50; color: white; text-align:
center; }

</style>
</head>
<body>
<header><h1>Update Product Catalog</h1></header>
<ul>
    <li><a href="lab1.html">Home</a></li>
    <li><a href="register.html">Register</a></li>
    <li><a href="products.html">Products</a></li>
    <li><a href="order.html">Order</a></li>
    <li><a href="catalog.html">Update Catalog</a></li>
    <li><a href="payment.html">Payment</a></li>
</ul>
<div class="content">
    <h2>Add or Update Product</h2>
    <form>
        <input type="text" name="product_id" placeholder="Product ID" required><br>
        <input type="text" name="product" placeholder="Product Name" required><br>
        <input type="number" name="price" placeholder="Price" required><br>
        <input type="number" name="stock" placeholder="Stock Quantity" required><br>
        <input type="submit" value="Update Catalog">
    </form>

```

```
</div>
<footer><p>&copy; 2026 Pine Valley Furniture</p></footer>
</body>
</html>
```

### OUTPUT:



### 5. payment.html

```
<!DOCTYPE html>
<html>
<head>
  <title>Payment - Pine Valley Furniture</title>
  <style>
    body { font-family: Arial; background-color: #f4f6f9; margin: 0; }
    header { background-color: #2c3e50; color: white; padding: 20px; text-align: center; }
    ul { list-style-type: none; margin: 0; padding: 0; background-color: #34495e; overflow: hidden; text-align: center; }
    li { display: inline; }
    li a { color: white; padding: 14px 20px; display: inline-block; text-decoration: none; }
    li a:hover { background-color: #1abc9c; }
```

```

        .content { padding: 40px; text-align: center; }

        input[type="text"], input[type="number"] { padding: 10px; margin: 10px; width: 250px; border-
radius: 5px; border: 1px solid #ccc; }

        input[type="submit"] { background-color: #1abc9c; color: white; padding: 10px 25px; border: none;
border-radius: 5px; cursor: pointer; }

        input[type="submit"]:hover { background-color: #16a085; }

        footer { margin-top: 80px; padding: 10px; background-color: #2c3e50; color: white; text-align:
center; }

</style>
</head>
<body>
<header><h1>Payment</h1></header>
<ul>
    <li><a href="lab1.html">Home</a></li>
    <li><a href="register.html">Register</a></li>
    <li><a href="products.html">Products</a></li>
    <li><a href="order.html">Order</a></li>
    <li><a href="catalog.html">Update Catalog</a></li>
    <li><a href="payment.html">Payment</a></li>
</ul>
<div class="content">
    <h2>Payment Form</h2>
    <form>
        <input type="text" name="customer" placeholder="Customer Name" required><br>
        <input type="text" name="orderid" placeholder="Order ID" required><br>
        <input type="number" name="amount" placeholder="Amount" required><br>
        <input type="text" name="account_title" placeholder="Account Title" required><br>
        <input type="text" name="account_number" placeholder="Account Number" required><br>

```

```
<input type="text" name="bank" placeholder="Bank Name" required><br>
<input type="submit" value="Confirm Payment">
</form>
</div>
<footer><p>&copy; 2026 Pine Valley Furniture</p></footer>
</body>
</html>
```

**OUTPUT:**

The screenshot displays a web application interface. At the top, there is a dark blue navigation bar with the word "Payment" in white. Below the navigation bar, there is a horizontal menu with links: "Home", "Register", "Products", "Order", "Update Catalog", and "Payment". The main content area has a light gray background and is titled "Payment Form". It contains six input fields stacked vertically, each with a placeholder text: "Customer Name", "Order ID", "Amount", "Account Title", "Account Number", and "Bank Name". Below the input fields is a green button with the text "Confirm Payment".