

INTERNET APPLICATION DEVELOPMENT

LAB 6

Refer to Lab 1 (Problem 1), Lab 4 (Problems 3 and 4) and Lab 5 (Problems 1 to 4). You are required to design and implement Role Base Access Control mechanism for Pine Valley Furniture Company interfaces developed so far in above mentioned problems.

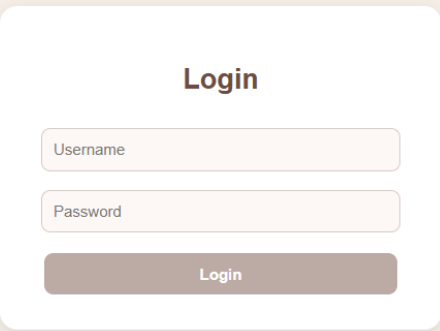
(a) As an initial step enhance the schema of PVFC database. Write enhanced schema below.

(b) Next enhance the solutions for above mentioned problems to take advantage of modified schema and incorporate role based access control for all interfaces.

→ DB updated code:

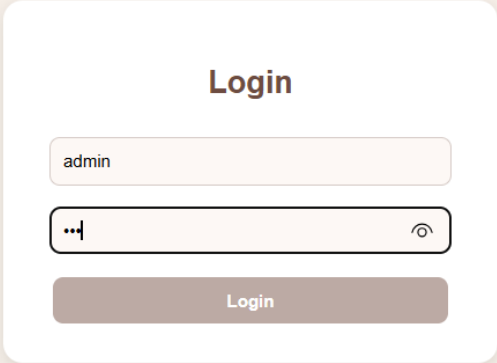
```
----- RBAC for admin and customer -----
-- ROLES TABLE
CREATE TABLE ROLES_t (
    Role_Id INT PRIMARY KEY,
    Role_Name VARCHAR(20)
);
-- USERS TABLE
CREATE TABLE USERS_t (
    User_Id INT PRIMARY KEY,
    Username VARCHAR(50),
    Password VARCHAR(50),
    Role_Id INT,
    CONSTRAINT USERS_FK1 FOREIGN KEY (Role_Id) REFERENCES ROLES_t(Role_Id)
);
-- Insert Roles
INSERT INTO ROLES_t VALUES (1, 'Admin');
INSERT INTO ROLES_t VALUES (2, 'Customer');
-- Insert Users
INSERT INTO USERS_t VALUES (1, 'admin', '123', 1);
INSERT INTO USERS_t VALUES (2, 'customer', '123', 2);
SELECT * FROM USERS_t;
```

→Login page:



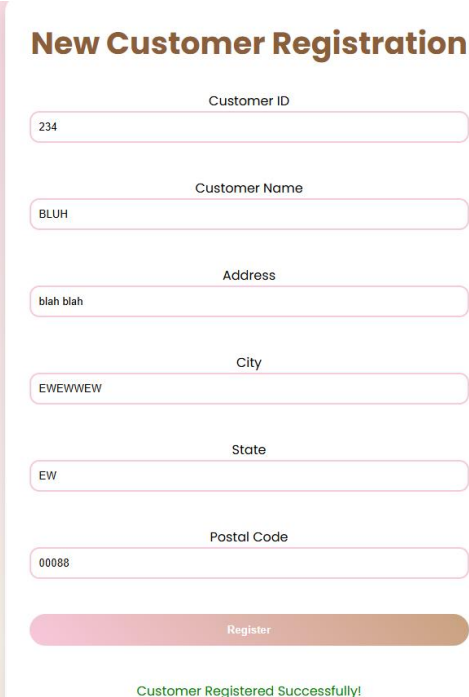
The image shows a login page with a white background and a light beige border. In the center, there is a white rounded rectangle containing the title "Login" in bold black text. Below the title are two input fields: "Username" and "Password", both with light beige borders and placeholder text. At the bottom of the rectangle is a dark brown button with the text "Login" in white.

→ Logging in as admin:



A login form titled "Login" is centered on a light beige background. It consists of a white rounded rectangle containing three elements: a text input field with the value "admin", a password input field with a masked character "..." and a visibility toggle icon, and a dark brown "Login" button.

Tasks admin can access:



A "New Customer Registration" form is displayed on a light beige background. The form is a white rounded rectangle with the following fields: "Customer ID" (234), "Customer Name" (BLUH), "Address" (blah blah), "City" (EWEWEWE), "State" (EW), and "Postal Code" (00088). Below the fields is a dark brown "Register" button. A green message "Customer Registered Successfully!" is shown at the bottom of the form.

Update Product Catalog

Product ID
2

New Description
lalala

New Price
1000

New Product Finish
j

Update Product

Product updated!

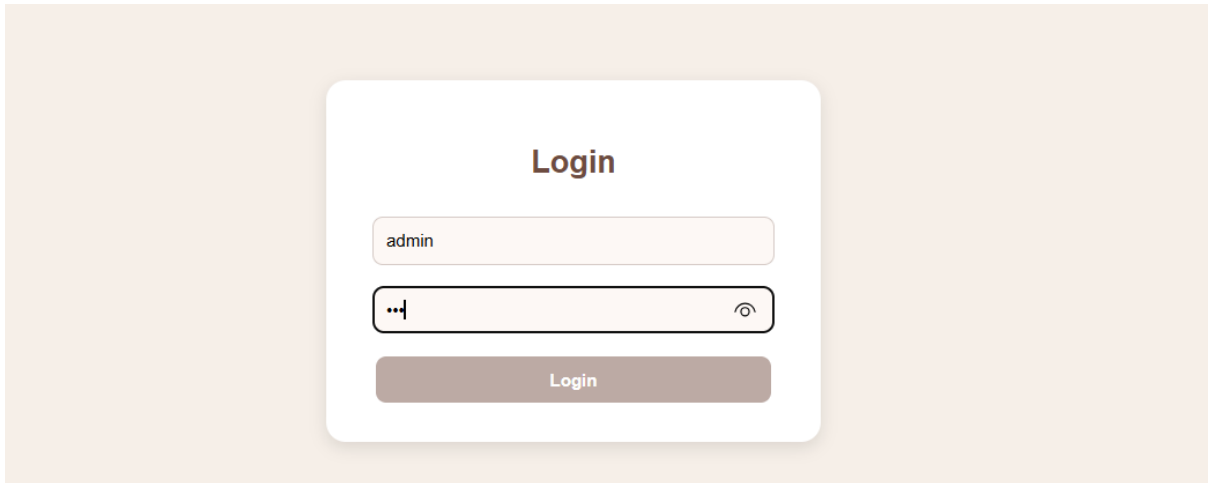
← Back to Homepage

Tasks admin cant access:

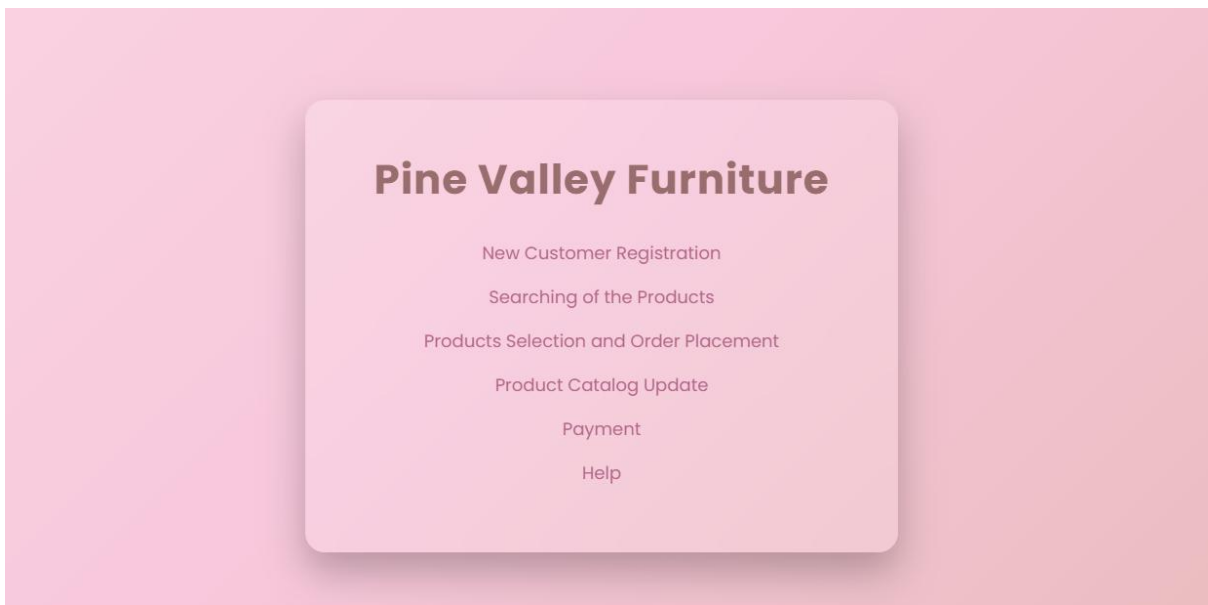
1) order placement



It asks again for login

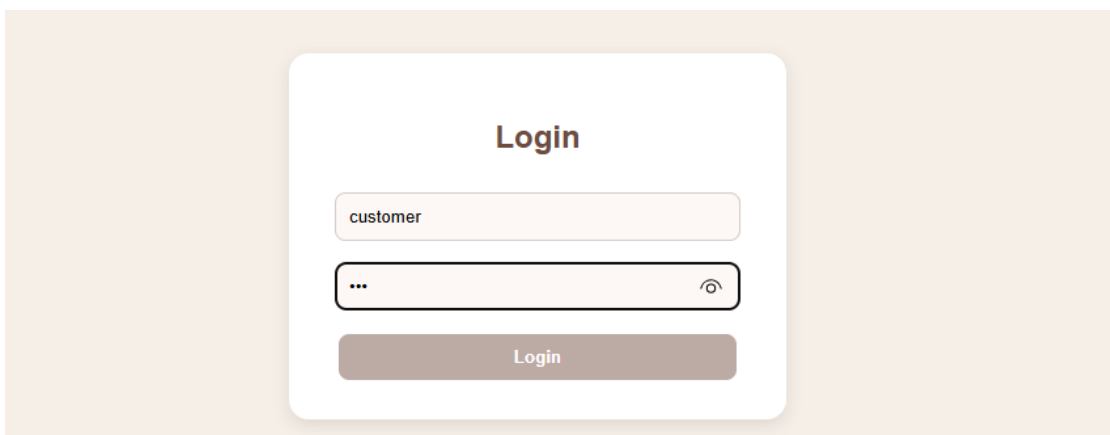


Logged in as admin so it takes back to homepage (no access) unless customer logs in



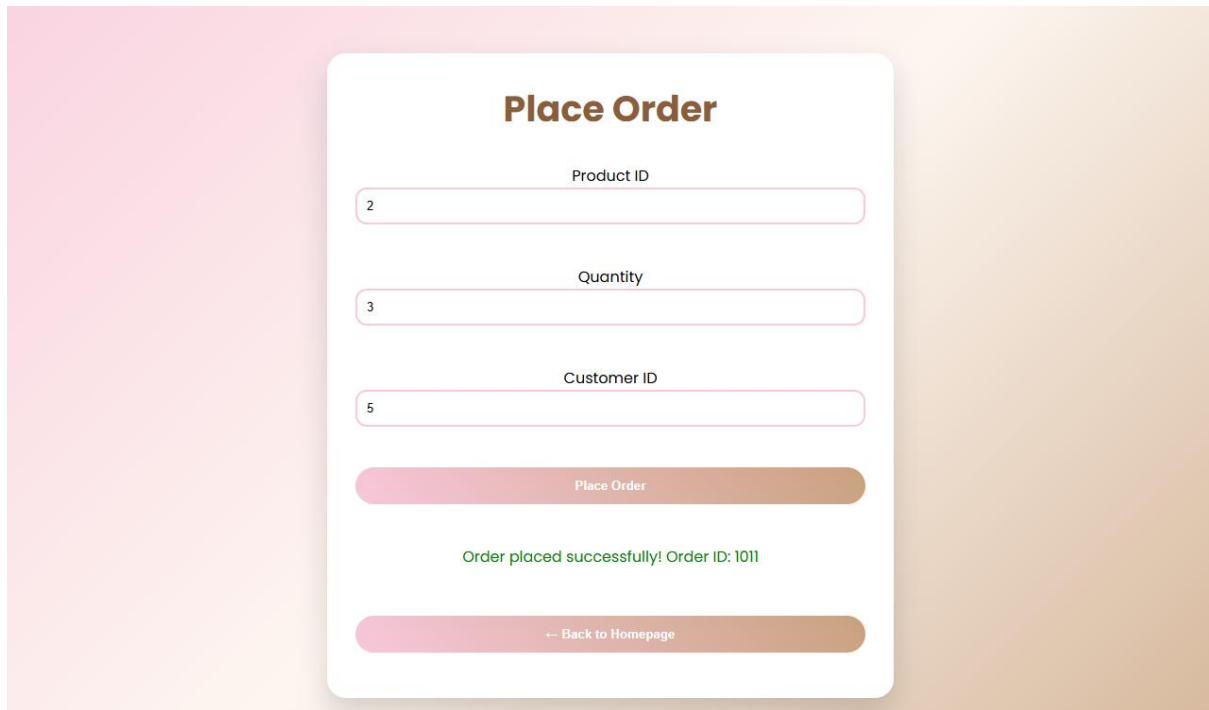
Same for other tasks like Payment.

Logging in as customer:



Tasks customer has access to:

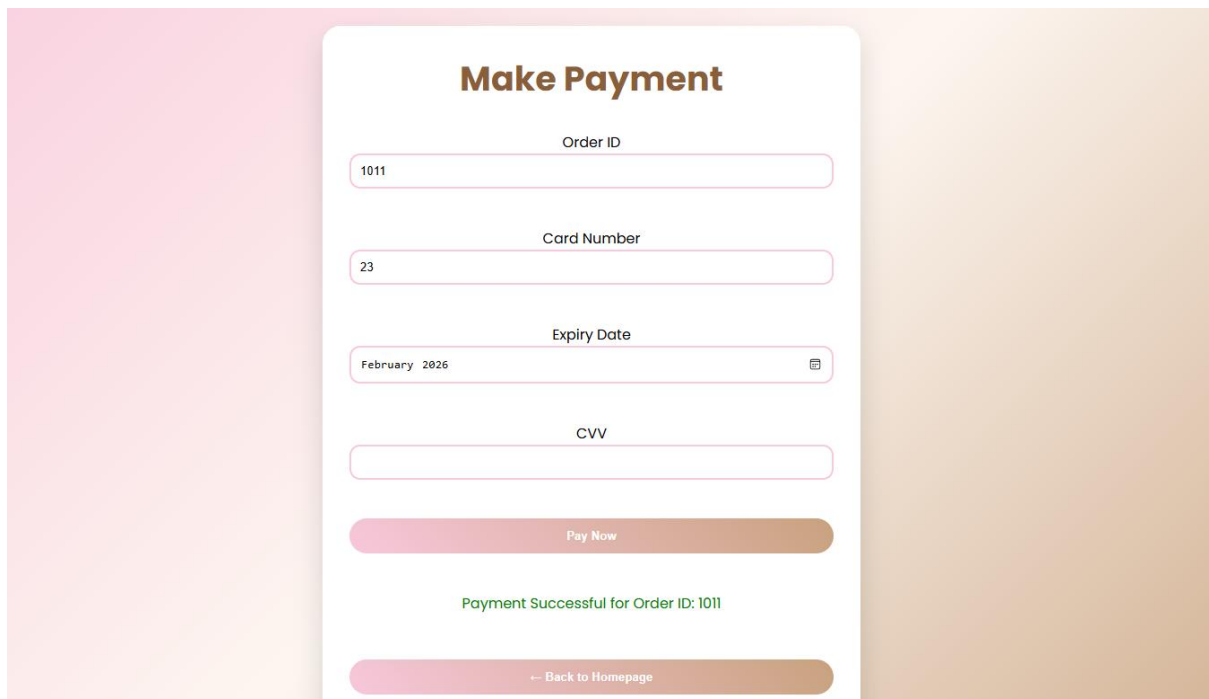
Orderplacement:



The 'Place Order' form is a white rounded rectangle centered on a background with a pink-to-orange gradient. It contains the following elements:

- Product ID:** Input field with value '2'.
- Quantity:** Input field with value '3'.
- Customer ID:** Input field with value '5'.
- Place Order:** A wide, rounded button with a pink-to-orange gradient.
- Order placed successfully! Order ID: 1011:** A green confirmation message.
- ← Back to Homepage:** A wide, rounded button with a pink-to-orange gradient.

Payment:

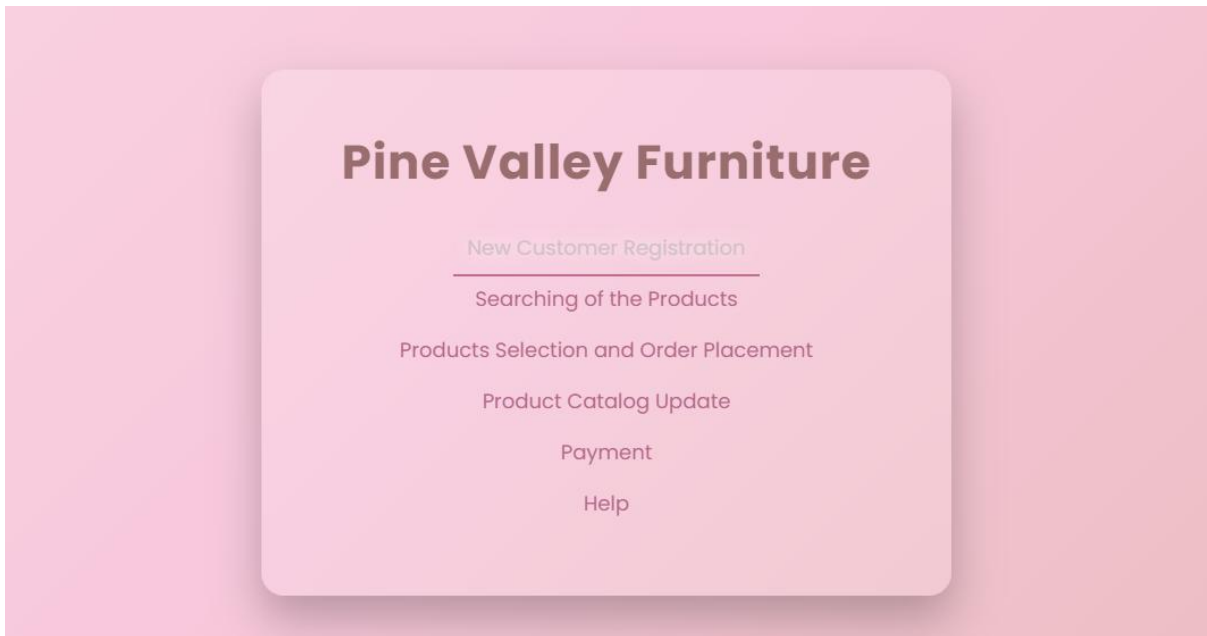


The 'Make Payment' form is a white rounded rectangle centered on a background with a pink-to-orange gradient. It contains the following elements:

- Order ID:** Input field with value '1011'.
- Card Number:** Input field with value '23'.
- Expiry Date:** Input field with value 'February 2026' and a calendar icon on the right.
- CVV:** Input field.
- Pay Now:** A wide, rounded button with a pink-to-orange gradient.
- Payment Successful for Order ID: 1011:** A green confirmation message.
- ← Back to Homepage:** A wide, rounded button with a pink-to-orange gradient.

Tasks customer can't access:

Customer registration, Product update



Same as admin restricted case, it asks for login again then takes back to homepage providing no access unless admin logs in