



# **Computer and Information Sciences**

**CIS 23-27**

**6<sup>th</sup> Semester**

**Internet Application Development**

**Problem Statement**

**Topic: Role-Based Access Control (RBAC)**

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## **Problem Statement**

### **Problem Outline**

Refer to the interfaces and database implementations from previous labs. You are required to design and implement a Role-Based Access Control mechanism for Pine Valley Furniture Company interfaces developed so far.

### **Tasks:**

1. **(a)** As an initial step, enhance the schema of the PVFC database to include user roles and authentication details.
2. **(b)** Next, enhance the solutions for the previous problems to take advantage of the modified schema. Incorporate role-based access control for all interfaces (e.g., restricting Catalog access and Customer updates to Admins, while allowing standard features for regular customers).
3. **(c)** Ensure that session variables securely track the logged-in user's privileges to grant or deny access conditionally.