Project 2: Warehouse GUI
Stage 1 – Finite State Machine
CSCI 430 – Object Oriented Programming
Saint Cloud State University

Group 11

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Multi-Panel Interactive System (MPIS) Panels
1. Log-in Panel
    a. User provides type
    b. User provides username and password
    c. UI calls verification process
    d. If verification process fails
        i. Notify the user, jump to 1
    e. Otherwise:
        i. Jump to Client Panel(2)
        ii. Jump to Salesclerk Panel(3)
        iii. Jump to Manager Panel(4)
2. Client Panel
    a. Select From:
        i. View Account
            1. Perform:
                a. Display Name
                b. Display Address
                c. Display Balance due (consider more)
                d. Goto Account Options Panel(5)
        ii. Manage cart/Place order
            1. Perform:
                a. Goto Manage Cart Panel(6)
        iii. View Products
            1. Perform:
                a. Goto View Products Panel(7)
        iv. Payment Options
            1. Perform:
                a. Goto Client Payments Panel(8)
        v. Quit
            1. Return to calling process
3. Salesclerk Panel
    a. Select from:
        i. Receive a shipment
            1. Perform:
                a. Goto Receive Shipment Panel(9)
        ii. View Products
            1. Perform:
                a. Goto View Products Panel(7)
        iii. Add Client
            1. Perform:
                a. Get needed information from user
                b. Add client to DB
        iv. Add Product

1. Perform:
   a. Get needed information from user
   b. Add Product to DB
v. Load Database
   1. Perform:
      a. Read in the saved database
vi. Display Manufacturers who supply a given product
   1. Perform:
      a. Get product id from user
      b. Verify id
      c. Display manufacturers for that product
vii. Become Client
   1. Perform:
      a. Retrieve a client id from user
      b. Verify id
      c. Launch instance of client menu(2)
      d. Wait for user to log out of client menu (module returns)
viii. Quit
   1. Return to calling process
4. Manager Panel (requires password)
   a. Modify sale price
      i. Perform:
         1. Prompt user for product id
         2. Verify id
         3. Get new price from client
         4. Set new price
   b. Add manufacturer
      i. Perform:
         1. Prompt user for necessary info to create manufacturer
         2. Create manufacturer
   c. Clear database
      i. Perform:
         1. Ask user if they are sure that they would like to clear the database
         2. Create new database
         3. Save database
         4. Close database
   d. Become salesclerk
      i. Perform:
         1. Retrieve manager's password
         2. Verify password
         3. Launch instance of salesclerk menu(3)
         4. Wait for user to log out of salesclerk menu (module returns)
5. [Client] View Account Options Panel

a. Orders
b. Invoices
c. Payments
d. Quit
6. [Client] Manage Cart Panel
a. Add To Cart
b. View Cart
c. Modify Cart Item
d. Place Order
e. Quit
7. [Client/Salesclerk] View Products Panel
a. Display all products
b. Search products by name
c. Get product price (Using Name or ID)
d. Etc
e. Quit
8. [Client] Payment Options Panel
a. Make Payment
b. View Payments
c. View Balance
d. Quit
9. [Salesclerk] Receive Shipment Panel
a. Perform:
i. Get a supplier ID from user
ii. Verify that ID
1. If invalid, say something and exit
iii. Select From:
1. Input Shipped Item
2. Quit

Log-In Panel Description

    The log-in panel serves as the first line of defense for the warehouse system. In this panel, users must provide their role/type then provide their username and password. With this information, the UI will call a process verify the user and their role. If the verification fails, the panel will notify the user and reset the login panel. If the verification is successful, the UI will open the panel for the role the user provided. For simplicity, salesclerks and managers won't be allowed to log directly into other roles and must log into their own respective roles.

Client Panel Description

    The client panel allows the user to view their account, manage cart/place orders, check product prices, and make payments. If the user chooses to view their account, then the client's basic information is displayed and the **view account options panel** is opened. If the user chooses to manage cart/place order the **manage cart panel** is opened. When the user chooses to view products the **view products panel** is opened, which, when closed, returns to the current client panel. For details on the panels the client can open, refer to their description section.

View Account Options Panel Description

    If the user wants to view additional data about the client, they may choose orders, invoices, or payments the client has saved. Otherwise the user may choose to quit and return to the client panel.

Manage Cart Panel Description

    The user can add to the cart with a product ID, view the cart, modify a cart item, or place an order with the items in the cart. If the user doesn't wish to choose any of these options, they may choose to quit and return to the client panel.

View Products Panel Description

    The user can view the product list in the view products panel by displaying all products or providing a parameter to search for in the product list. Displaying a product shows the count, sale price, and supplier.

Payment Options Panel Description

    OP1[The user can choose to make a payment, view previous payments, or view their current balance in the payment options panel.] *OP2*[On entry to this panel, the user is shown their balance and provided the option to make a payment or view payment history. After successfully making a payment, the panel restarts, showing the user the balance and provides options.] On quitting, this panel returns to its client panel.

Salesclerk Panel Description

Sales clerks are able to receive a shipment, display products, add clients, add products, load databases, display manufacturers of a product, or become a client. If the user chooses to receive a shipment, the **receive shipment panel** is opened. When choosing to view products, the **View Products Panel** is opened, which, after exiting, returns to this current salesclerk panel. If the user chooses to become a client, the client panel is opened and the user may act as a client. Once the user logs out of the new client panel, they will be returned to the current salesclerk panel. To view details on panels opened by the salesclerk, refer to their description section.

Receive Shipment Panel Description

Using the supplier ID provided by the user, verify the supplier exists or inform the user if it doesn't. If the supplier exists allow the user to input a shipped item or quit. Once this panel is exited, the UI returns to the current salesclerk panel.

Manager Panel Description

Since the manager panel gives the user more privileges, the actions in this panel require a password to run. The actions in the manager panel allow the user to modify sale prices, add manufacturers, clear the database, or assume the role of salesclerk. If the user chooses to become a salesclerk, the salesclerk panel is opened and the user may act as a salesclerk. Once the user logs out of the new salesclerk panel, they will be returned to the current manager panel.

Verification Failed

1. Log-In

Client

2. Client Panel

View
Account

5. View Account
Options

Manage
Cart

6. Cart Panel

Payments

8. Payment Optioins
Panel

Become
Client

View
Products

7. View Products
Panel

Salesclerk

3. Salesclerk Panel

View
Products

Become
Salesclerk

Receive
Shipment

9. Receive Shipment
Panel

Manager

4. Manager Panel