

ONLINE MEDICAL PHARMACY MANAGEMENT SYSTEM

CSE 202
OBJECT ORIENTED PROGRAMMING LAB



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1. Class Diagram

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<u>PACKAGE</u>
med.lib
<u>CLASS</u>
InvalidOrderException
<u>METHOD</u>
InvalidOrderException (String orderID)

2. InvalidItemException class

<u>PACKAGE</u>
med.lib
<u>CLASS</u>
InvalidItemException
<u>METHOD</u>
InvalidItemException (String itemID)

3. Item Class

PACKAGE

med.lib

ABSTRACT CLASS

(Item)

name: (String)
id: (String)
-manufacturer: (String)
unitPrice: (double)
quantity: (int)

METHOD

Item(name: String, manufacturer: String, unitPrice: double, quantity: int)

addPrefixCodeToId(prefix: String): void
getName(): String
setName(name: String): void
getManufacturer(): String
setManufacturer(manufacturer: String): void
getUnitPrice(): double
setUnitPrice(unitPrice: double): void
getId(): String
getQuantity(): int
increaseQuantity(increasedAmt: int): void
decreaseQuantity(decreasedAmt: int): boolean
toString(): String
getBill(): double

4. Order Class

PACKAGE

med.lib

CLASS

(Order)

orderId: (String)
itemId: (String)
orderBy: (String)
quantity: (int)
status: (String)
orderDate: (LocalDate)
deliveryDate: (LocalDate)

METHOD

Order(itemId: String, orderBy: String, quantity: int)

getStatus(): String

setStatus(status: String): void

getItemId(): String

getOrderBy(): String

completeOrder(): void

getOrderId(): String

getQuantity(): int

toString(): String

5. MedicalAccessory Class

PACKAGE

med.lib

CLASS

(MedicalAccessory) Extends Item

modelNo: String
hasDiscount: boolean

METHOD

MedicalAccessory(name: String, manufacturer: String, modelNo: String,
unitPrice: double, quantity: int)

getModelNo(): String

hasDiscount(): boolean

setDiscount(hasDiscount: boolean): void

toString(): String

getBill(): double

6. MedPharma Class

PACKAGE

med.lib

CLASS

(MedPharma)

name: (String)
items: ArrayList<Item>
requestedItems: ArrayList<Order>
inpStre: (ObjectInputStream)
outStre: (ObjectOutputStream)

METHOD

MedPharma(name: String)

getName(): String

findItem(id: String): Item

findOrder(orderId: String): Order

findItems(name: String, manufacturer: String,
dose: double, unit: String, unitPrice: double,
expirationDate: String): ArrayList<Medicine>

findExpiredMeds(): ArrayList<Medicine>

findItems(name: String, manufacturer: String,
modelNo: String, unitPrice: double):
ArrayList<MedicalAccessory>

findItems(name: String, manufacturer: String):
ArrayList<Item>

```
addItem(name: String, manufacturer: String,  
dose: double, unit: String, unitPrice: double,  
quantity: int, expirationDate: String): String
```

```
addItem(name: String, manufacturer: String,  
modelNo: String, unitPrice: double, quantity:  
int): String
```

```
acceptOrderRequest(orderId: String): Boolean
```

```
orderItem(medId: String, customerContact:  
String, quantity: int): String
```

```
getMyOrder(customerContact: String):  
ArrayList<Order>
```

```
getNewOrders(): ArrayList<Order>
```


7. Medicine Class

PACKAGE

med.lib

CLASS

(Medicine)

dose: (double)

unit: (String)

expirationDate: (LocalDate)

METHOD

+ Medicine(name: String, manufacturer: String,
dose: double, unit: String, unitPrice:
double, quantity: int, expirationDate: LocalDate)

Medicine(name: String, manufacturer: String,
dose: double, unit: String, unitPrice:
double, quantity: int, expirationDate:String)

getDose(): double

getUnit(): String

getExpirationDate(): LocalDate

hasExpired(): boolean

toString(): String

2. BLOCK DIAGRAM

1. Employee Menu

LOGIN

- Enter ID (Label)
- Enter Your ID To Login (Text Field)
- Exit / Login (Button)

ADD ITEMS (RB)

- Medicine / Accessory (RB)
- Name / Manufacturer / Unit Price / Quantity / Model Number / Unit / Dose (Text Field)
- Expiration Date / Day / Month / Year (Label)
- DD / MM / YY (Text Field)
- Add / Login / Menu (Button)

VIEW AND ACCEPT ORDER (RB)

- View New Orders (Button)
- Tree View (Details)
- Order ID (Text Field)
- Accept Order / Login / Menu (Button)

SEARCH ITEMS (RB)

- Medicine / Accessory / Both (RB)
- Name / Manufacturer / Unit Price / Model Number / Unit / Dose (Text Field)
- Expiration Date / Day / Month / Year (Label)
- DD / MM / YY (Text Field)
- Search (Button)
- Tree View (Details)
- Login / Menu (Button)

GET EXPIRED MEDICINES (RB)

- Expired Medicines (Button)
- Table View - (Name, Manufacturer, Unit Price, Dose, Unit, Quantity, Expiration Date)
- Login / Menu (Button)

2. Customer Menu

LOGIN

- Enter ID (Label)
- Enter Your ID To Login (Text Field)
- Exit / Login (Button)

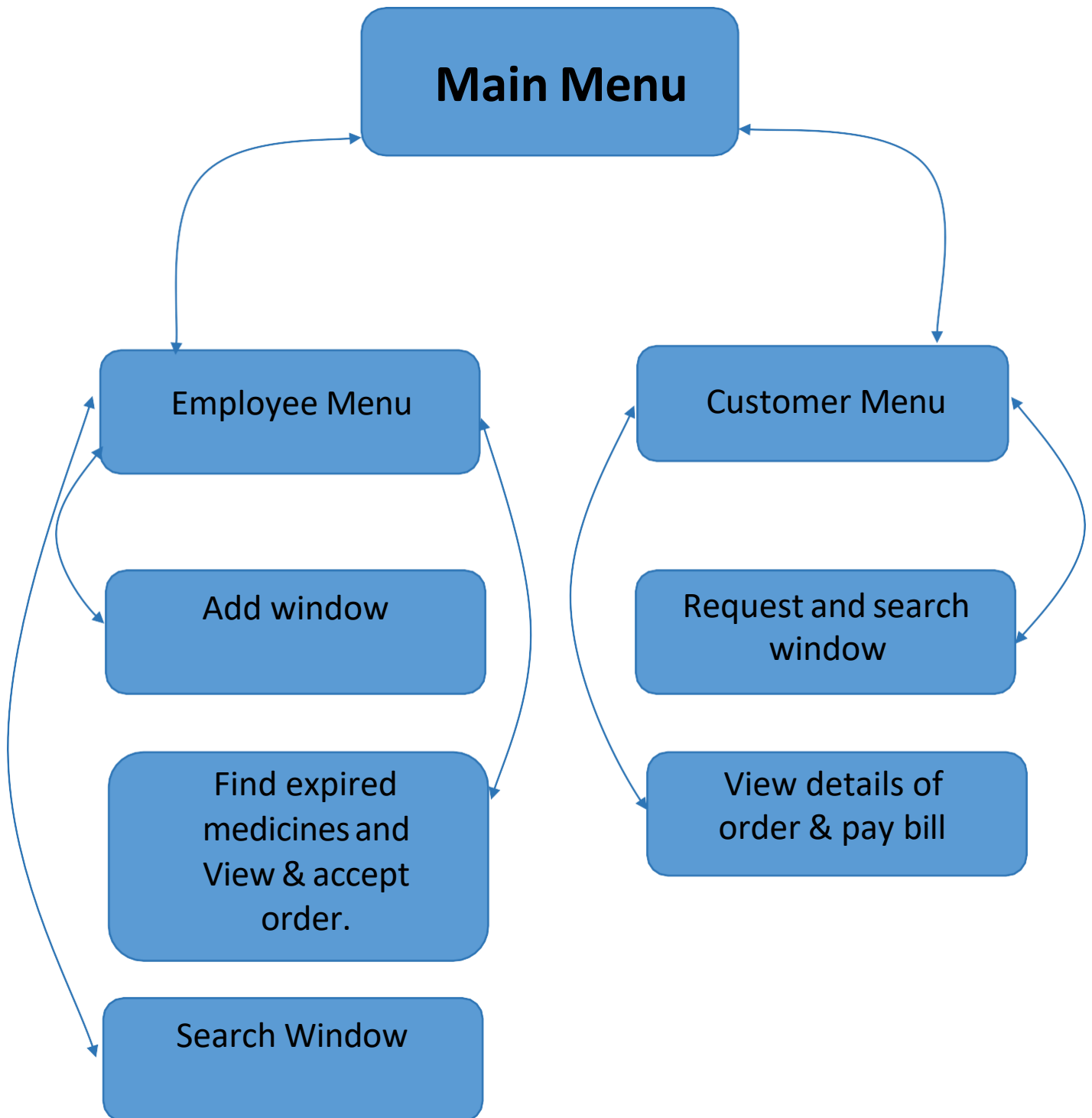
SEARCH ITEMS AND REQUEST ORDER (RB)

- For Searching (Label)
- Name / Manufacturer (Text Field)
- Product Details (Label)
- Tree View (Details)
- For Ordering (Label)
- Product ID / Contact Number / Quantity (Text Field)
- Search / Order / Login / Menu (Button)

VIEW DETAILS OF YOUR ORDER AND PAY BILL (RB)

- For Searching (Label)
- Contact (Text Field)
- Pay Bill (Label)
- Order ID (Text Field)
- For Order Details (Label)
- Tree View (Details)
- Search / Pay / Login / Menu (Button)

3. GUI Diagram



Main Menu

Main Menu

Enter ID

Exit

Login

For id= “E”, the employee menu will open and for id= “C”, customer menu will open.

Customer Menu

Customer Menu

Press to search for items and request an order

Press to view detail of your order and pay bill

Logout

Employee Menu

Employee Menu

Press to add items

Press to view & accept order

Press to search items

Press to find expired medicines

Logout

Request and Search Window

Request and Search

For Searching	For Ordering
Product name <input type="text"/>	Product ID <input type="text"/>
Manufacturer <input type="text"/>	Contact <input type="text"/>
Product Details <div></div>	Quantity <input type="text"/>
<div>Search</div>	<div>Order</div> <div>Exit</div>

View details of order & pay bill Window

View details of order & pay bill Window	
For Searching	Order Details
Contact <input type="text"/>	<div></div>
Search	
For Paying Bill	
Order ID <input type="text"/>	
Pay	Exit

Add window

Add window			
Medicine	Accessory	Add	
Name	<input type="text"/>	Unit	<input type="text"/>
Manufacturer	<input type="text"/>	Dose	<input type="text"/>
Unit Price	<input type="text"/>	Expiration Date	
Amount	<input type="text"/>	Day	Month
Model Number	<input type="text"/>	<input type="text"/>	<input type="text"/>
			Exit

Text Fields will be deactivated according to the options selected.

Find expired medicines and View & accept order Window

Find expired medicines and View & accept order

Find expired medicines

To View New Orders

Order ID

Accept Order

Exit

Search Window

Search Window

Medicine

Accessory

Both

Name

Manufacturer

Unit Price

Model Number

Unit

Dose

Expiration Date

Day

Month

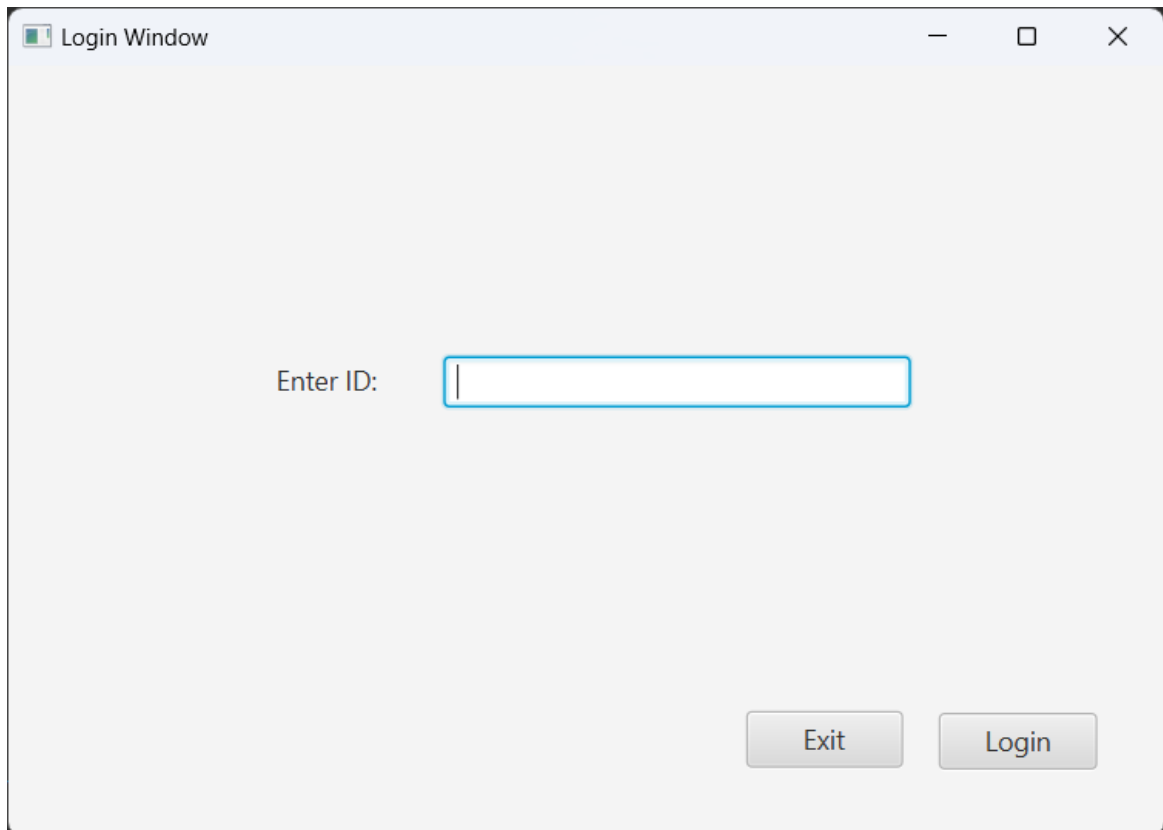
Year

Search

Exit

4. **OUTPUTS**

Logic Window



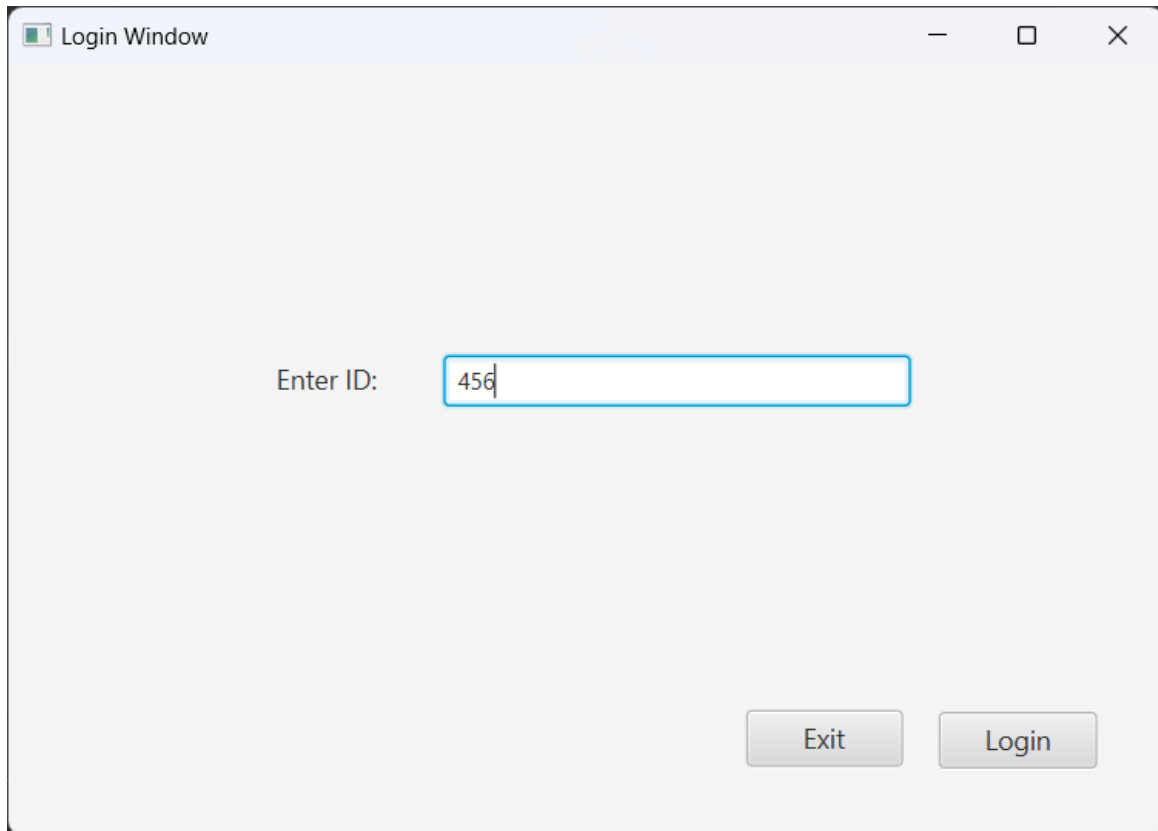
The image shows a screenshot of a software application window titled "Login Window". The window has a standard operating system title bar with a minimize button, a maximize button, and a close button. The main content area is light gray. In the center, there is a label "Enter ID:" followed by a text input field with a blue border. At the bottom right, there are two buttons: "Exit" and "Login".

Login Window

Enter ID:

Exit Login

1. Customer Login Window



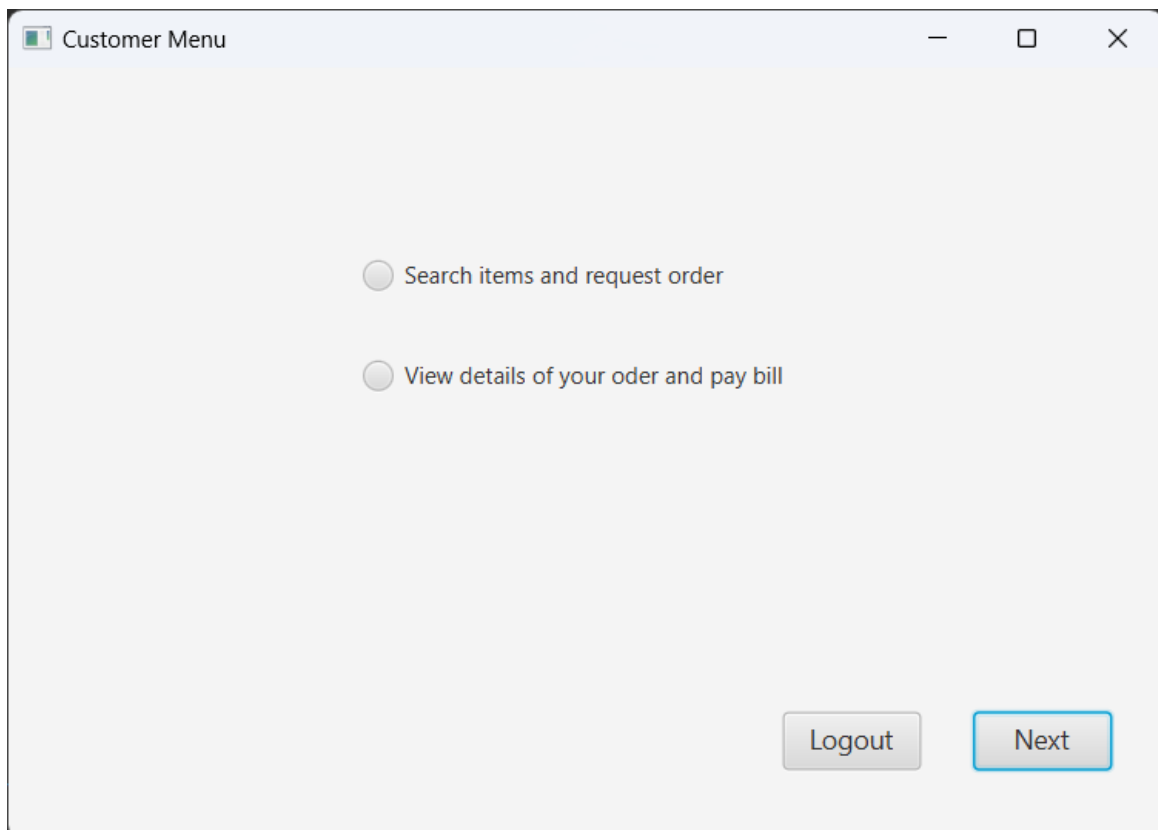
A screenshot of a software window titled "Login Window". The window has a light gray background and a standard title bar with minimize, maximize, and close buttons. In the center, there is a label "Enter ID:" followed by a text input field containing the number "456". At the bottom right, there are two buttons: "Exit" and "Login".

Login Window

Enter ID:

Exit Login

2. Customer Menu



A screenshot of a software window titled "Customer Menu". The window has a light gray background and a standard title bar with minimize, maximize, and close buttons. In the center, there are two radio button options: "Search items and request order" and "View details of your oder and pay bill". At the bottom right, there are two buttons: "Logout" and "Next".

Customer Menu

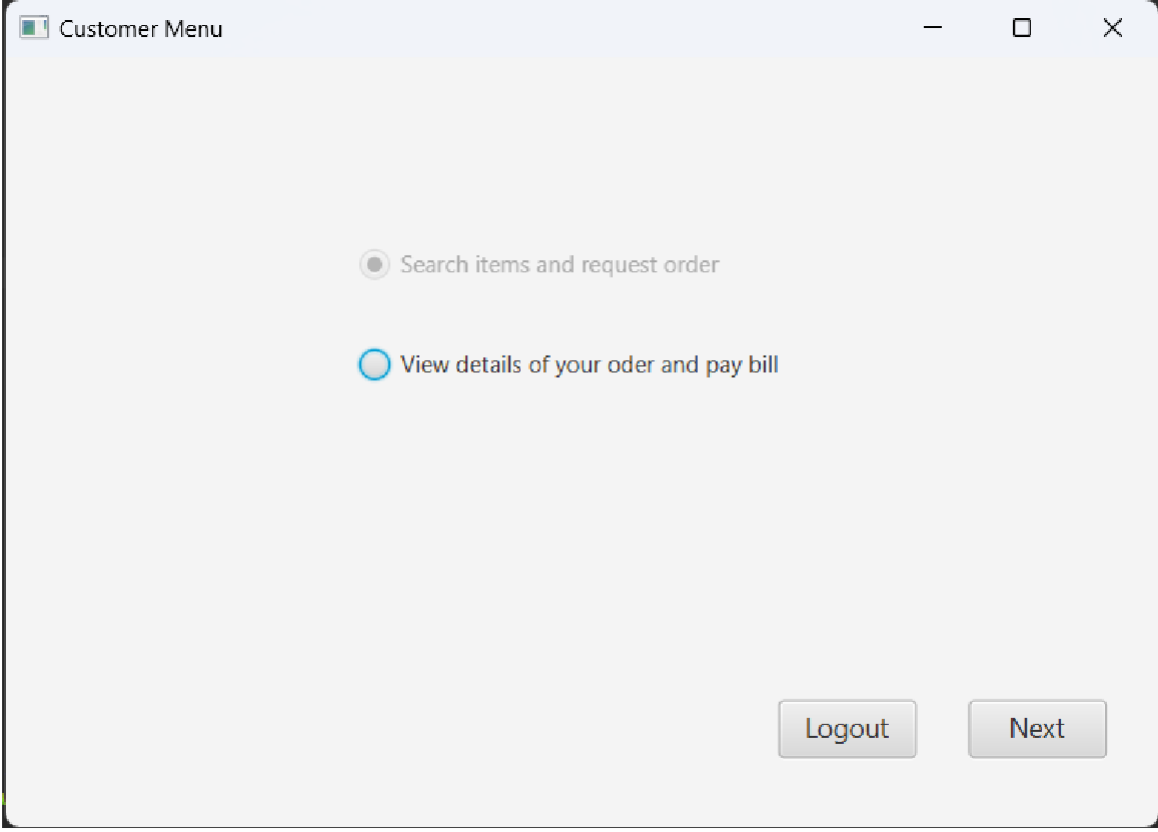
☐ Search items and request order

☐ View details of your oder and pay bill

Logout Next

1. Customer Medicine Task

Search Items & Request Order



Customer Menu

☒ Search items and request order

☐ View details of your order and pay bill

Logout Next

1. Customer Search For Medicine

The screenshot shows a window titled "Request and Search items" with two main sections: "For searching" and "For ordering".

For searching:

- Two input fields: "Napa" and "Square". The "Square" field is highlighted with a blue border.
- A "Search" button at the bottom.
- Product details:**
 - ▼ All products are:
 - ▼ Medicines:
 - 1. Name: Napa, Manufacturer: square, ID: M-7393, Uni
 - Medical Accessories:

For ordering:

- Input fields for "Product ID", "Contact Number", and "Quantity".
- An "Order" button.
- "Login" and "Menu" buttons at the bottom.

2. Customer Order

The screenshot shows the same "Request and Search items" window, but with the search results expanded and the order form filled out.

For searching:

- Two input fields: "Napa" and "Square".
- A "Search" button at the bottom.
- Product details:**
 - ▼ All products are:
 - ▼ Medicines:
 - 1. Name: Napa, Manufacturer: square, ID: M-7393, Uni
 - Medical Accessories:

For ordering:

- Input fields filled with: "M-7393", "01988887710", and "1".
- An "Order" button.
- "Login" and "Menu" buttons at the bottom.

3. Customer Order ID

The screenshot shows a web application window titled "Request and Search items". It is divided into two main sections: "For searching" on the left and "For ordering" on the right. In the "For searching" section, there are two input fields containing "Napa" and "Square". Below them is a "Product details" section with a dropdown menu showing "All products are:" and "Medicines:". Under "Medicines:", there is a list item "1. Name: Napa, Manufacturer: square, ID: M-7393, Uni". Below this is a "Medical Accessories:" section. In the "For ordering" section, there are three input fields containing "M-7393", "01988887710", and "1". Below these is a blue "Order" button. At the bottom of the window, there are "Search", "Login", and "Menu" buttons. A message dialog box is overlaid on the window, titled "Message", with an information icon and the text "O-554". It has an "OK" button.

View Details Of Your Oder & Pay Bill

The screenshot shows a web application window titled "Customer Menu". It contains two radio button options. The first option is "Search items and request order" with an unselected radio button. The second option is "View details of your oder and pay bill" with a selected radio button. At the bottom right of the window, there are two buttons: "Logout" and "Next". The "Next" button is highlighted with a blue border.

4. Customer Order Search

The screenshot shows a window titled "View Order and Pay Bill". It has two main sections: "For searching" and "Pay Bill".

For searching: Contains a text input field with the value "01988887710" and a "Search" button.

Pay Bill: Contains a text input field labeled "OrderID" and a "Pay" button.

For order details: A large text area displaying the text: "Order [orderId=O-554, itemId=M-7393, orderBy=01988887710, quantity=1,".

At the bottom right, there are "Login" and "Menu" buttons.

5. Customer Pay Bill & Medicine Cost

This screenshot shows the same "View Order and Pay Bill" window as in the previous image, but with additional input and a message dialog.

For searching: The text input field still has "01988887710". The "Search" button is now disabled.

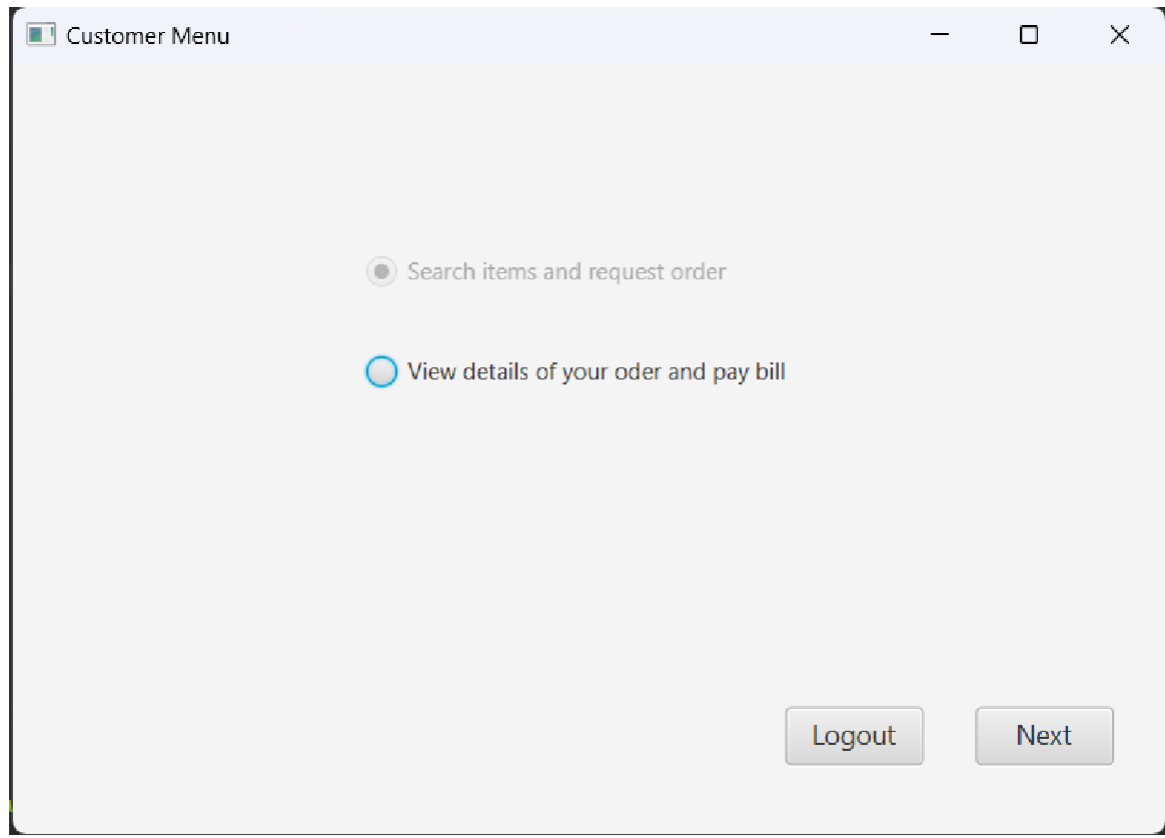
Pay Bill: The "OrderID" field now contains "O-554". The "Pay" button is now enabled and highlighted with a blue border.

Message Dialog: A modal dialog box titled "Message" is centered on the screen. It contains an information icon (i) and the text "Your total cost is: 300.0". There is an "OK" button at the bottom of the dialog.

The "For order details" text area and the "Login" and "Menu" buttons at the bottom remain the same as in the previous screenshot.

2. Customer Medicine Accessory Task

Search Items & Request Order



Customer Menu

☒ Search items and request order

☐ View details of your order and pay bill

Logout Next

1. Customer Search For Medicine Accessory

The screenshot shows a web application window titled "Request and Search items". It is divided into two main sections: "For searching" on the left and "For ordering" on the right.

For searching:

- There are two input fields: "Injection" (containing the text "Injection") and "Lacix" (containing the text "Lacix").
- Below these fields is a "Product details" section with a dropdown menu labeled "All products are:". The dropdown is expanded, showing a list of items under "Medical Accessories":
 - 1. Name: nebulizer, Manufacturer: square, ID: MA-3909
 - 2. Name: Pressure Machine, Manufacturer: Square, ID:
 - 3. Name: Injection, Manufacturer: Lacix, ID: MA-8475, U
- A "Search" button is located at the bottom of the "For searching" section.

For ordering:

- There are three input fields: "Product ID", "Contact Number", and "Quantity".
- An "Order" button is located below the input fields.
- At the bottom of the "For ordering" section, there are "Login" and "Menu" buttons.

2. Customer Search Found

The screenshot shows the same "Request and Search items" application window. In this state, the search results are displayed.

For searching:

- The "Name" and "Manufacturer" input fields are now empty.
- The "Product details" section shows the search results for "Lacix":
 - ▼ All products are:
 - Medicines:
 - ▼ Medical Accessories:
 - 1. Name: Injection, Manufacturer: Lacix, ID: MA-8475, U
- The "Search" button is still present at the bottom.

For ordering:

- The "Product ID", "Contact Number", and "Quantity" input fields remain empty.
- The "Order", "Login", and "Menu" buttons are still present.

3. Customer Order ID

Request and Search items

For searching

Name

Manufacturer

Product details

▼ All products are:

Medicines:

▼ Medical Accessories:

1. Name: Injection, Manu

Search

For ordering

MA-8475

019888887710

2

Order

Login

Menu

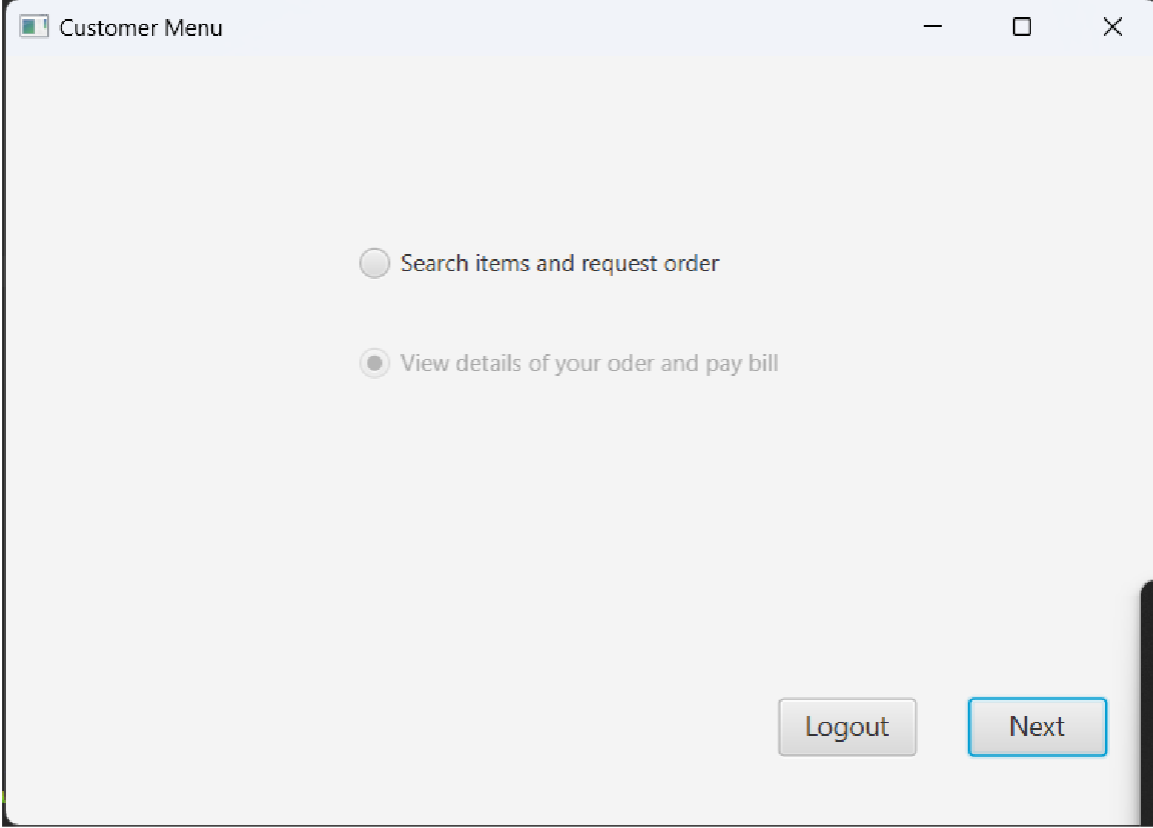
Message

i

O-106

OK

View Details Of Your Oder & Pay Bill



A screenshot of a software window titled "Customer Menu". It features two radio buttons for navigation. The first option is "Search items and request order" with an unselected radio button. The second option is "View details of your oder and pay bill" with a selected radio button. At the bottom right, there are two buttons: "Logout" and "Next". The "Next" button is highlighted with a blue border.

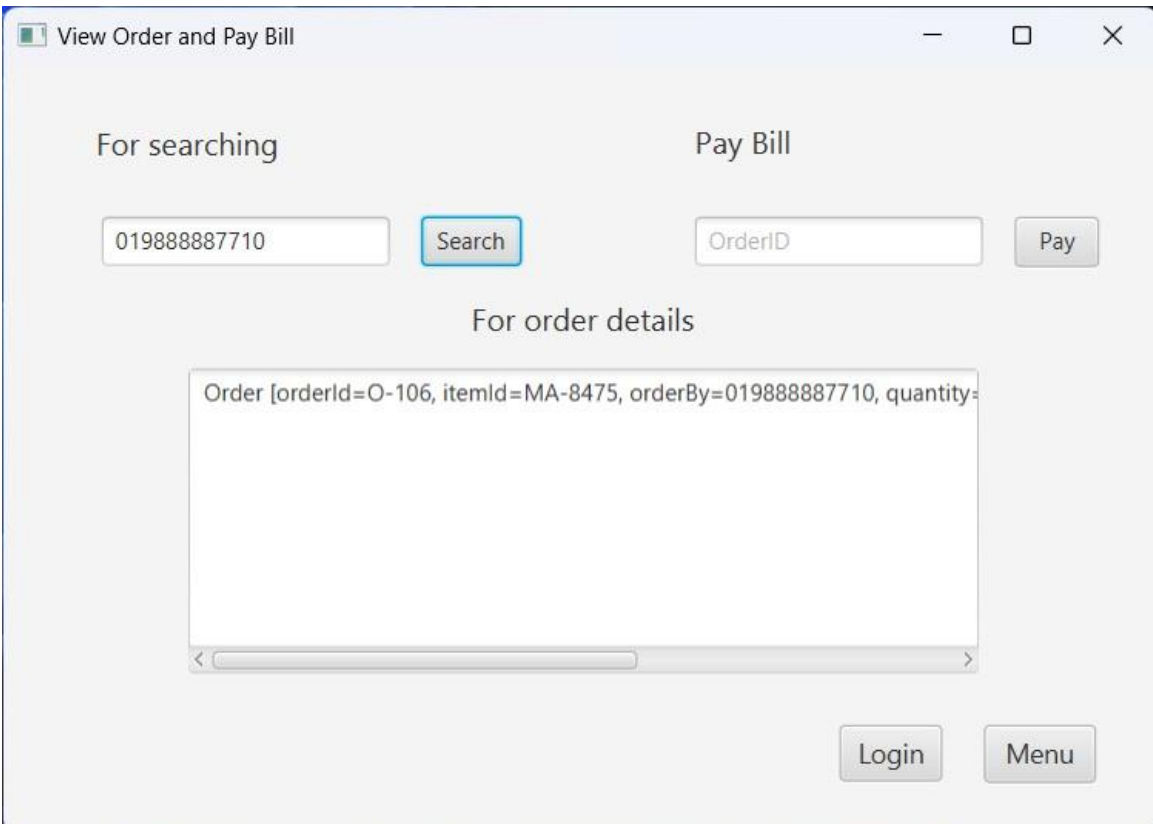
Customer Menu

☐ Search items and request order

☒ View details of your oder and pay bill

Logout Next

4. Customer Order Search



A screenshot of a software window titled "View Order and Pay Bill". It is divided into two main sections. The top section, "For searching", contains a text input field with the value "019888887710", a "Search" button, and a "Pay Bill" sub-section with an "OrderID" input field and a "Pay" button. The bottom section, "For order details", contains a text area displaying the text "Order [orderId=O-106, itemId=MA-8475, orderBy=019888887710, quantity=...". At the bottom right, there are "Login" and "Menu" buttons.

View Order and Pay Bill

For searching

019888887710 Search

Pay Bill

OrderID Pay

For order details

Order [orderId=O-106, itemId=MA-8475, orderBy=019888887710, quantity=...

Login Menu

5. Customer Pay Bill & MA Cost

View Order and Pay Bill

For searching

019888887710

Search

Pay Bill

O-106

Pay

For order details

Order [orderId=O-106, itemId=MA-8475, orderBy=019888887710, quantity=

Message

i

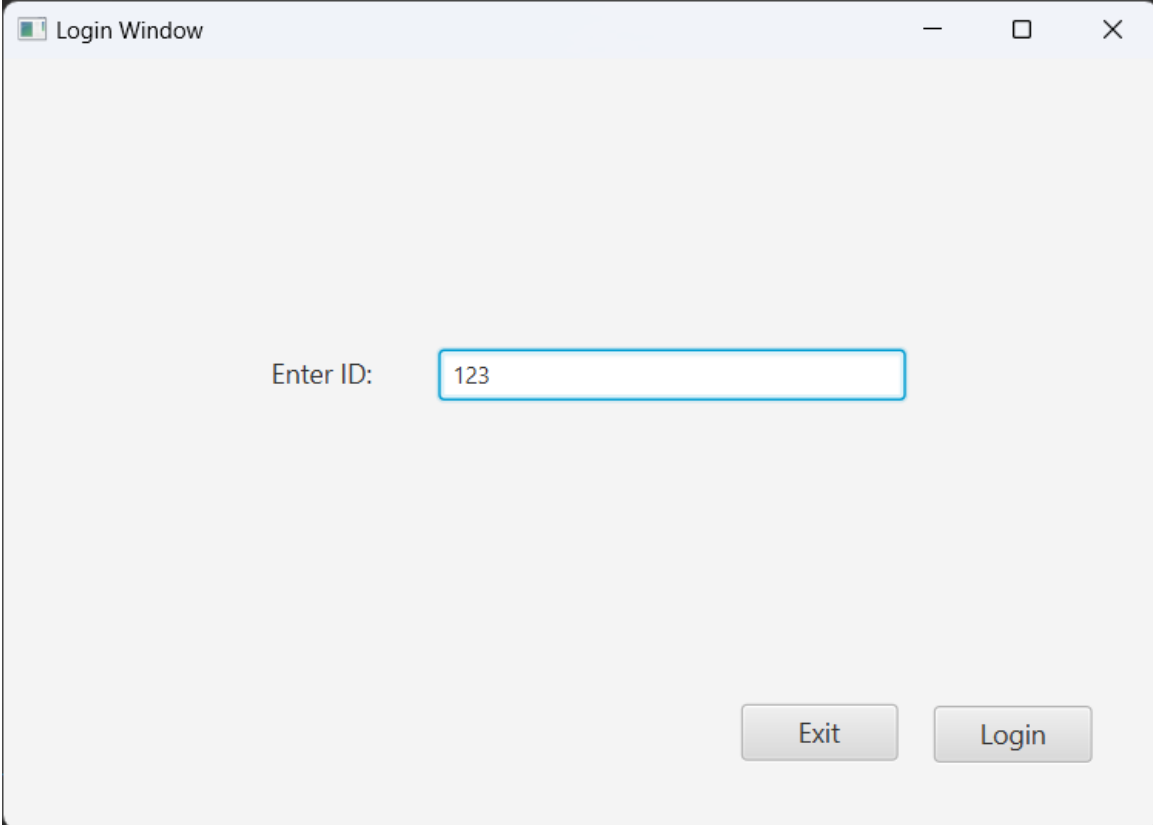
Your total cost is: 40.0

OK

Login

Menu

1. Employee Login Window



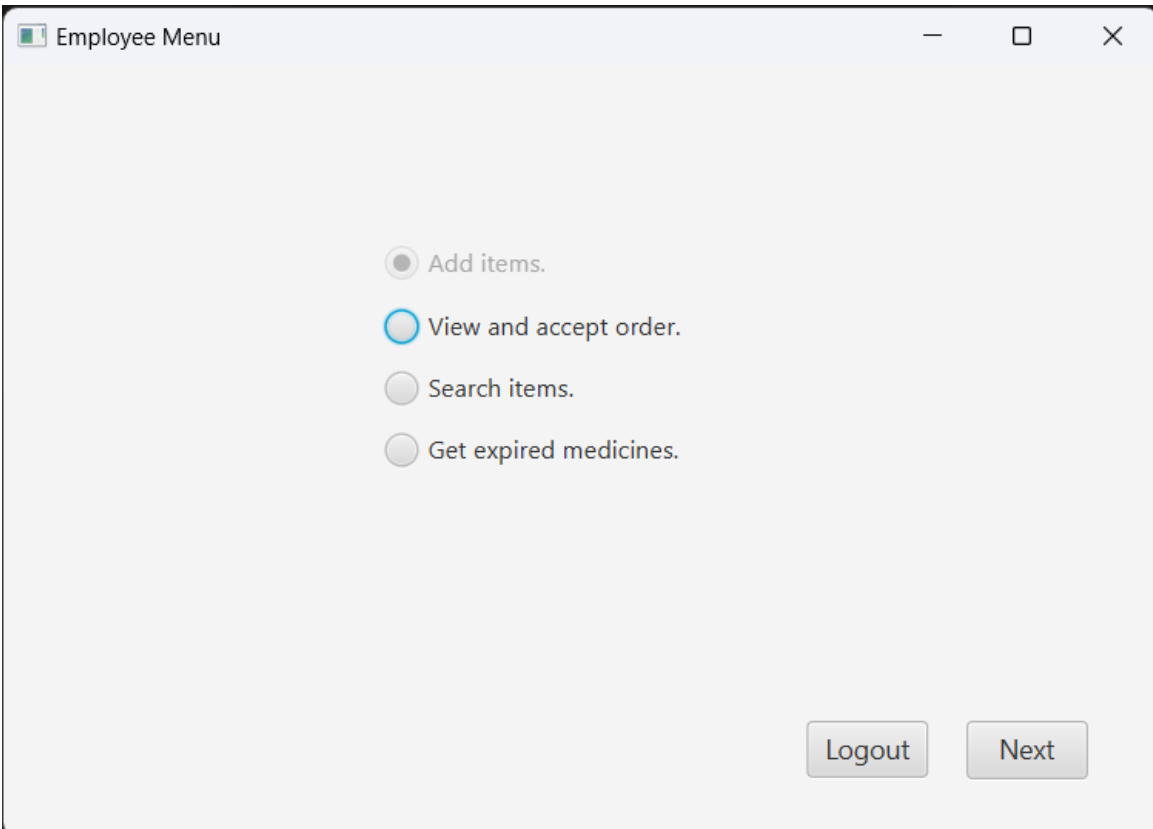
A screenshot of a software window titled "Login Window". The window has a light gray background and standard window controls (minimize, maximize, close) in the top right corner. In the center, there is a label "Enter ID:" followed by a text input field containing the number "123". At the bottom right, there are two buttons: "Exit" and "Login".

Login Window

Enter ID: 123

Exit Login

2. Add Items Options



A screenshot of a software window titled "Employee Menu". The window has a light gray background and standard window controls (minimize, maximize, close) in the top right corner. In the center, there are four radio button options: "Add items.", "View and accept order.", "Search items.", and "Get expired medicines.". The "View and accept order." option is selected, indicated by a blue outline around its radio button. At the bottom right, there are two buttons: "Logout" and "Next".

Employee Menu

☒ Add items.
☒ View and accept order.
☐ Search items.
☐ Get expired medicines.

Logout Next

3. Employee Medicine & Exp Date Add

Add Medicines & Medical Accessory

☒ Medicine ☐ Accessory Add

Name:

Strength:

Quantity:

Model Number:

Expiration Date: Day Month Year

Message ×

i **M-9686**

OK

Login Menu

4. Employee Medicine Accessory Add

Add Medicines & Medical Accessory

☐ Medicine ☒ Accessory Add

Name:

Brand:

Quantity:

Unit:

Expiration Date: Day Month Year

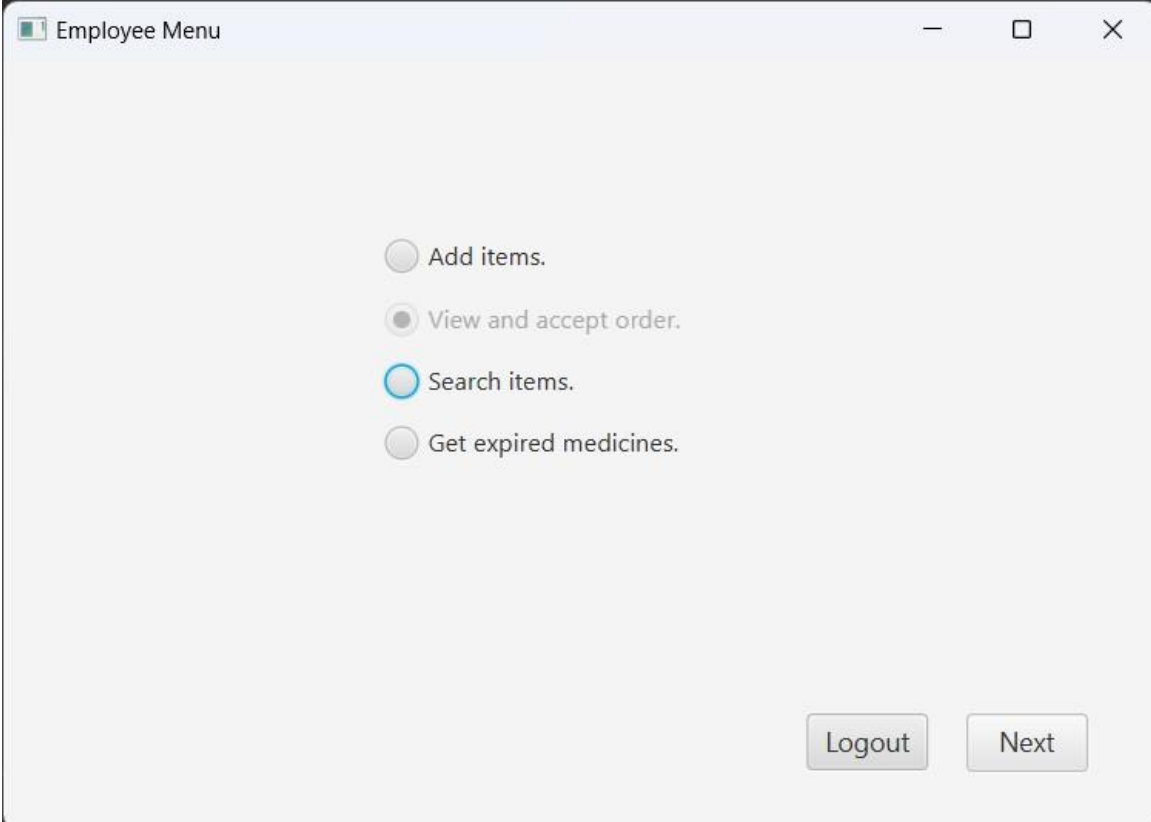
Message ×

i **MA-6469**

OK

Login Menu

5. View & Accept Order Option



Employee Menu

☐ Add items.

☐ View and accept order.

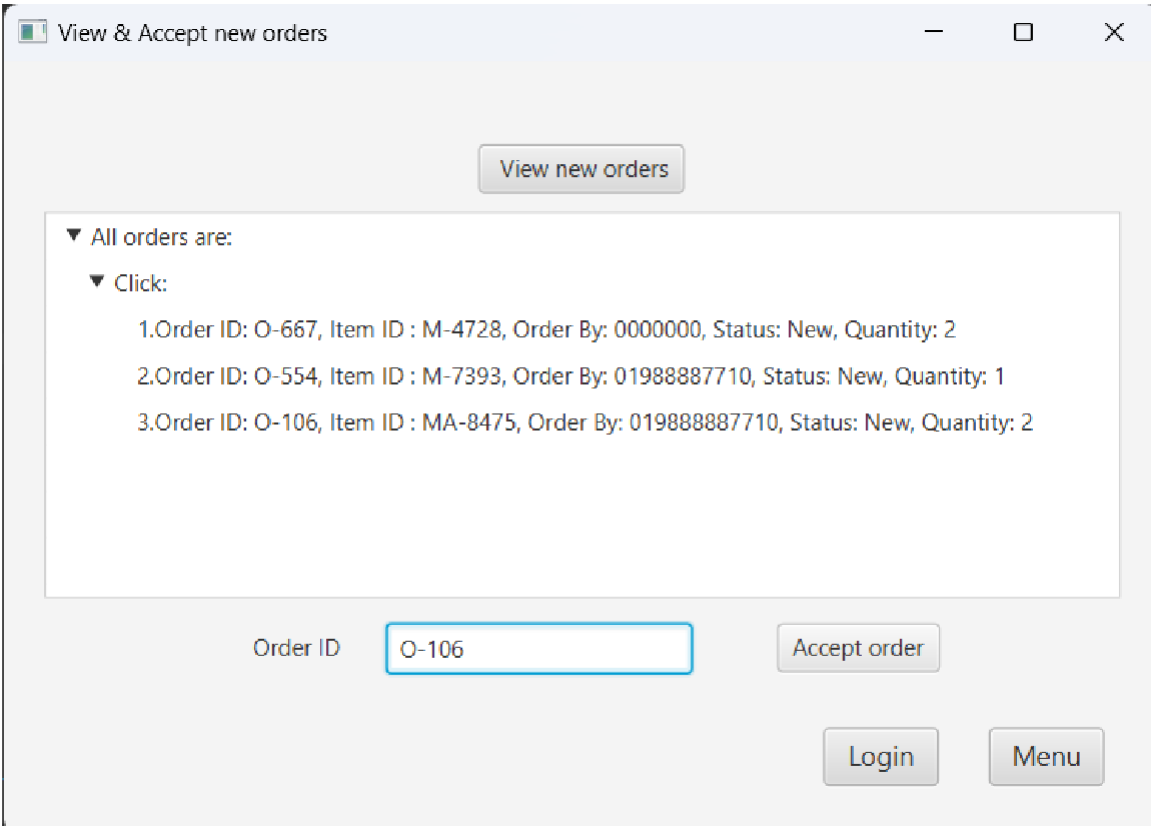
☒ Search items.

☐ Get expired medicines.

Logout Next

This screenshot shows a window titled "Employee Menu" with a light blue header bar. Inside the window, there are four radio button options: "Add items.", "View and accept order.", "Search items." (which is selected with a blue border), and "Get expired medicines.". At the bottom right of the window, there are two buttons: "Logout" and "Next".

6. View & Order Accept



View & Accept new orders

View new orders

▼ All orders are:

▼ Click:

- 1.Order ID: O-667, Item ID : M-4728, Order By: 0000000, Status: New, Quantity: 2
- 2.Order ID: O-554, Item ID : M-7393, Order By: 01988887710, Status: New, Quantity: 1
- 3.Order ID: O-106, Item ID : MA-8475, Order By: 019888887710, Status: New, Quantity: 2

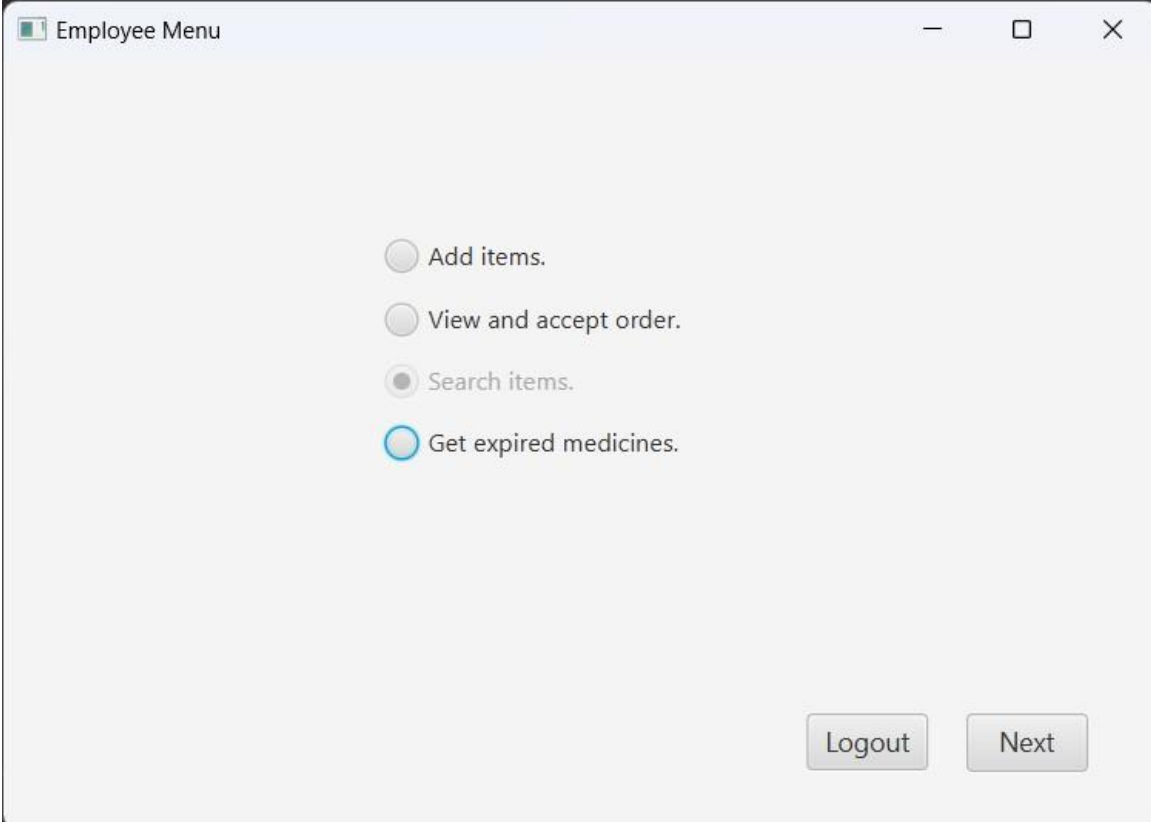
Order ID

Accept order

Login Menu

This screenshot shows a window titled "View & Accept new orders" with a light blue header bar. Below the header, there is a "View new orders" button. A large white box contains the text "▼ All orders are:" followed by "▼ Click:" and a list of three orders. Each order line includes the Order ID, Item ID, Order By, Status, and Quantity. Below the list, there is a label "Order ID" followed by a text input field containing "O-106". To the right of the input field is an "Accept order" button. At the bottom right of the window, there are two buttons: "Login" and "Menu".

7. Search Items Option



Employee Menu

☐ Add items.

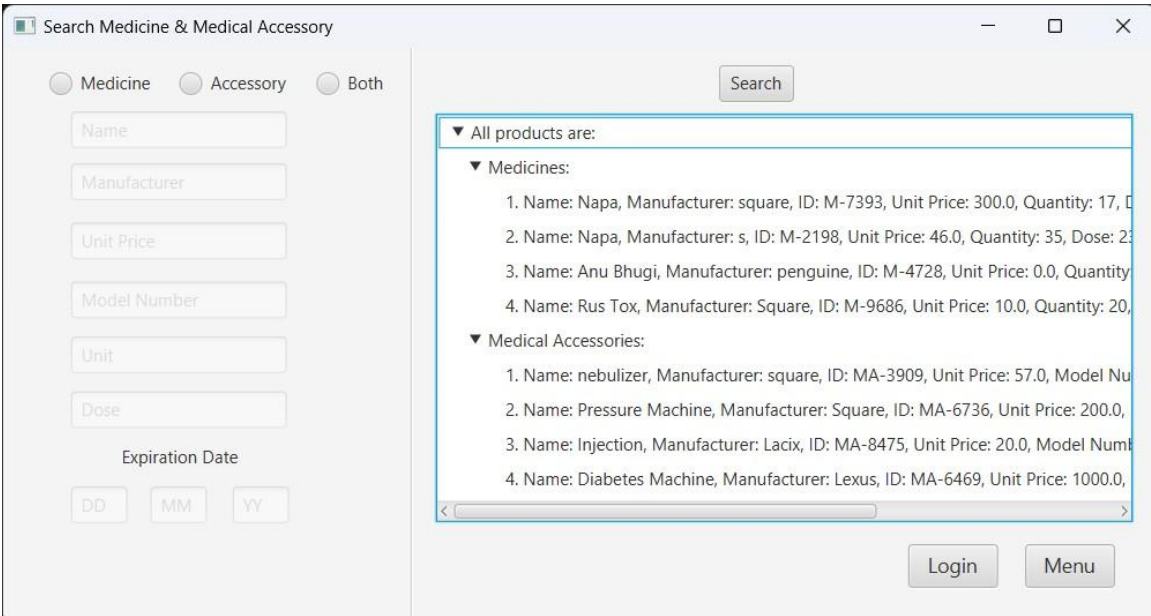
☐ View and accept order.

☒ Search items.

☐ Get expired medicines.

Logout Next

8. Search Items



Search Medicine & Medical Accessory

☐ Medicine ☐ Accessory ☐ Both

Search

Name

Manufacturer

Unit Price

Model Number

Unit

Dose

Expiration Date

DD MM YY

Login Menu

▼ All products are:

▼ Medicines:

1. Name: Napa, Manufacturer: square, ID: M-7393, Unit Price: 300.0, Quantity: 17, D
2. Name: Napa, Manufacturer: s, ID: M-2198, Unit Price: 46.0, Quantity: 35, Dose: 2
3. Name: Anu Bhugi, Manufacturer: penguin, ID: M-4728, Unit Price: 0.0, Quantity
4. Name: Rus Tox, Manufacturer: Square, ID: M-9686, Unit Price: 10.0, Quantity: 20,

▼ Medical Accessories:

1. Name: nebulizer, Manufacturer: square, ID: MA-3909, Unit Price: 57.0, Model Nu
2. Name: Pressure Machine, Manufacturer: Square, ID: MA-6736, Unit Price: 200.0,
3. Name: Injection, Manufacturer: Lacix, ID: MA-8475, Unit Price: 20.0, Model Num
4. Name: Diabetes Machine, Manufacturer: Lexus, ID: MA-6469, Unit Price: 1000.0,

9. Both Search items

Search Medicine & Medical Accessory

☐ Medicine ☐ Accessory ☒ Both

Diabetes Machine

Lexus

Unit Price

Model Number

Unit

Dose

Expiration Date

DD MM YY

Search

▼ All products are:

Medicines:

▼ Medical Accessories:

1. Name: Diabetes Machine, Manufacturer: Lexus, ID: MA-6469, Unit Price: 1000.0,

Login Menu

10. Get Exp Medicine

Employee Menu

☐ Add items.

☐ View and accept order.

☐ Search items.

☒ Get expired medicines.

Logout Next

11. Exp Medicine List

Expired Medicines

Expired Medicines

Name	Manufacturer	Unit Price	Dose	Unit	Quantity	Expiration Date
Napa	square	300.0	10.0	2	17	2024-08-09
Napa	s	46.0	234.0	547	35	2024-12-09
Rus Tox	Square	10.0	2.0	30	20	2024-12-12

<

>

Login

Menu