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Module sign_up()
    Declare username, password, users[]
    Display Enter a username:
    Input username
    IF username == users[], THEN
        Display Sorry, that username is already taken. Please try another
    ELSE
        Display Enter a password:
        Input password
        Display Confirm password:
        IF password != confirm_password, THEN
            Display Passwords do not match. Please try again."
        ELSE
            Set users[username] = password
            Display Account created successfully!
        END IF
    END IF
END Module

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Module log_in()
    Declare username, password, users[]
    Display Enter username:
    Input username
    IF username not in users[], THEN
        Display Sorry, that username does not exist. Please try again.
    ELSE
        Display Enter password:
        Input password
        IF password != users[username], THEN
            Display Incorrect password. Please try again.
        ELSE
            Display Login successful!
        END IF
    END IF
END Module

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Module function()

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Declare inventory[], item_name, unit_price, quantity, add_more, item,
item_total_price, more_items
Display Enter item name:
Input item_name
Display Enter unit price:
Input unit_price
Display Enter quantity:
Input quantity
Set inventory[] += "serial_number": len(inventory) + 1, "item_name": item_name,
"unit_price": unit_price, "quantity": quantity
Display Do you want to add more items? (y/n):
Input add_more
IF add_more.lower() != "y", THEN
    IF in inventory[], THEN
        Display item['serial_number']} {item['item_name']}
        {item['unit_price']} {item['quantity']}
    ELSE
        initialize total_price = 0 declare receipt_items = inventory[],
        item_serial, payment
        Display Enter the serial number o f the item you want to purchase:
        Input item_serial
        Set item = inventory[item_serial - 1]
        Display Enter quantity:
        Input quantity
        IF quantity > item['quantity'], THEN
            Display Error: Only {item['quantity']} {item['item_name']} are
            available
        Else
            Set
            item_total_price = quantity * item['unit_price']
            total_price += item_total_price
            item['quantity'] -= quantity
            Set
            receipt_items += "item_name": item['item_name'],
            "unit_price": item['unit_price'], "quantity": quantity,
            "total_price": item_total_price}
            Display Do you want to purchase more items? (y/n):
            IF more_items.lower() != "y", THEN
                Go back to Display Enter the serial number o f the item
                you want to purchase:
            ELSE
                Display Total price: , {total_price}
                Display Enter payment amount:
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        Input payment
        Set change = payment - total_price
        Display Change: ,{change}
        IF item in receipt_items, THEN

            Display {item['item_name']}
            {item['unit_price']} {item['quantity']}
            {item['total_price']}
            Go back to IF item in receipt_items
        ELSE
            Display Updated Inventory List:
            Display {item['serial_number']}
            {item['item_name']} {item['unit_price']}
            {item['quantity']}
        END IF
    END IF
END IF

END IF

ELSE
    Go back to Display Enter item name:
END IF
END Module

Module main()
    Declare choice
    Display Welcome to the program!
    Please choose an option:
    1. Sign up
    2. Log in
    3. Quit
    Input choice
    IF choice == 1, THEN
        Call sign_up()
    ELSE IF choice == 2, THEN
        Call log_in()
        Call function()
    ELSE IF choice == 2, THEN
        END Module
    ELSE
        display Invalid choice. Please try again.
        Go back to Input choice
    END IF
END Module

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