

Alogrithm- SIMPLE Inventory Management System

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BEGIN

Define Item as STRUCTURE
    STRING name
    FLOAT price
    INTEGER quantity
END STRUCTURE

Define Inventory as LIST
Inventory=EMPTY_LIST

add_item()
RETURUNS void
START
    PRINT "Enter item name: "
    READ name
    PRINT "Enter item price: "
    READ price
    PRINT "Enter item quantity: "
    READ quantity

    Define new_item as Item
    new_item.name = name
    new_item.price = price
    new_item.quantity = quantity

    // Add the new item to the inventory list
    APPEND new_item TO inventory
    PRINT "Item added successfully."
END

view_all_items()
RETURUNS void
START
    IF LENGTH(inventory) == 0 THEN
        PRINT "Inventory is empty."
    ELSE
        PRINT "Inventory List:"
        FOR EACH item IN inventory
            PRINT "Name: " + item.name + ", Price: $" + item.price + ", Quantity: " +
item.quantity
        END FOR
    END IF
END

update_quantity()
RETURUNS void
START
    PRINT "Enter the name of the item to update: "
    READ search_name

    // Using FOR loop with index
    FOR i = 0 TO LENGTH(inventory) - 1
        IF inventory[i].name == search_name THEN
            PRINT "Current quantity for " + inventory[i].name + " is: " + inventory[i].quantity
            PRINT "Enter new quantity: "
            READ new_quantity
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        inventory[i].quantity = new_quantity
        PRINT "Quantity updated successfully."
        RETURN
    END IF
END FOR

PRINT "Item not found."
END

main()
RETURUNS void
START
    WHILE TRUE
        // Display menu options to the user
        PRINT "Inventory Management System"
        PRINT "1. Add a new item"
        PRINT "2. View all items"
        PRINT "3. Update an item's quantity"
        PRINT "4. Search for an item"
        PRINT "5. Exit"
        PRINT "Choose an option (1-5): "

        READ choice

        IF choice == 1 THEN
            add_item()
        ELSE IF choice == 2 THEN
            view_all_items()
        ELSE IF choice == 3 THEN
            update_quantity()
        ELSE IF choice == 4 THEN
            search_item()
        ELSE IF choice == 5 THEN
            PRINT "Thank you for using the Inventory Management System."
            BREAK
        ELSE
            PRINT "Invalid option. Please try again."
        END IF
    END WHILE
END

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