```
BEGIN InventoryManagementSystem

    DECLARE inventory AS DICTIONARY


    FUNCTION add_item(name, quantity, price_per_unit)

        TRY

        IF name EXISTS IN inventory THEN

                RAISE Exception("Error:")

        ELSE

                ADD {name: {quantity: quantity, price_per_unit: price_per_unit}} TO inventory

                PRINT "Item added successfully."

        END IF

        CATCH Exception AS e

                PRINT "Error: Item already exists" + e.message

    END FUNCTION


    FUNCTION update_quantity(name, quantity)

        TRY

        IF name NOT EXISTS IN inventory THEN

                RAISE Exception("Error")

        ELSE

                inventory[name]["quantity"] = inventory[name]["quantity"] + quantity

                PRINT "Quantity updated successfully."

        END IF

        CATCH Exception AS e

        PRINT "Error: Item Not exists" + e.message

    END FUNCTION


    FUNCTION generate_report()

        TRY

        IF inventory IS EMPTY THEN

                RAISE Exception("Error")
```

```
            ELSE

                    PRINT "Inventory Report:"

                    FOR EACH item IN inventory

                            PRINT "Name: " + item, "Quantity: " + inventory[item]["quantity"], "Price per
Unit: " + inventory[item]["price_per_unit"]

                    END FOR

            END IF

            CATCH Exception AS e

            PRINT "Error: Inventory is empty" + e.message

    END FUNCTION


    WHILE TRUE

        PRINT "Inventory Management System"

        PRINT "1. Add Item"

        PRINT "2. Update Quantity"

        PRINT "3. Generate Report"

        PRINT "4. Exit"

        INPUT choice


        IF choice = "1" THEN

            INPUT name

            INPUT quantity

            INPUT price_per_unit

            CALL add_item(name, quantity, price_per_unit)

        ELSE IF choice = "2" THEN

            INPUT name

            INPUT quantity

            CALL update_quantity(name, quantity)

        ELSE IF choice = "3" THEN

            CALL generate_report()

        ELSE IF choice = "4" THEN
```

```
            PRINT "Exiting the program. bye! bye!"

            BREAK

        ELSE

            PRINT "Invalid choice. Please try again."

        END IF

    END WHILE

END InventoryManagementSystem
```