

1.

USER STORY:

As a Cashier I want to have a decrease in transaction errors by implementing a user-friendly POS interface for cashiers, as measured by a comparative analysis of error rates before and after the interface implementation.

Critical problem:

Difficulty in using the POS system, leading to increased errors.

Test applies to:

GUI

Start Condition:

The cashier has access to the system and POS tab.

The warehouse has the following items in stock:

- Id: 1
 - Name: Lays Chips
 - Price: 11.0
 - Quantity: 5
- Id: 2
 - Name: Chupa-chups
 - Price: 8.0
 - Quantity: 8
- Id: 3
 - Name: Frankfurters
 - Price: 15.0
 - Quantity: 12
- Id: 4
 - Name: Free Beer
 - Price: 0.0
 - Quantity: 100

Steps to take:

GUI Testing:

Task Efficiency Testing:

- Start the GUI system

————TIMING STARTS————

- Cashier navigates to the POS section.
- Cashier adds Lays chips with the quantity of 4 to the shopping cart.
- Cashier submits the purchase.

- Cashier adds items with the following parameters to the shopping cart:
 - Barcode: 3
 - Amount: two
 - Name: Frankfurters
 - Price 15.0

- Cashier adds items with the following parameters to the warehouse:
 - Barcode: 1
 - Amount: 12
 - Name: Lays Chips
 - Price 11.0
- Cashier adds items with the following parameters to the warehouse:
 - Barcode: 1
 - Amount: 1
 - Name: Lays Chips
 - Price -20

—————TIMING STOPS—————

Condition when the test is considered passed:

Purchase confirmation message is shown.

When entering an invalid amount, it gives an error(**"Please enter valid quantity"**).

When the wanted item quantity exceeds the remaining available stock, it gives an error.

(**"There is not enough stock of Lays chips in the warehouse! There is 1 left."**)

When entering a negative price, it gives an error (**"Please enter a valid price"**)

Maximum Time:

The test is considered passed if it takes under 2 minutes.

TC1 - Testing report by LG8 - JavaEnjoyers

Critical problem - "Difficulty in using the POS system, leading to increased errors."

GUI

Steps completed:

1. Started GUI system and timer
2. On POS tab, clicked 'New Purchase'
3. Added 'Lays chips' with quantity of 4 to the cart via 'Add to cart'
4. Pressed 'Confirm' to submit the purchase
5. Clicked OK on the message stating 'Success- Transaction has been completed successfully.'
6. Clicked on 'New Purchase' and added the following parameters:
 - Bar Code: 3
 - Amount: two
 - Name: Frankfurters
 - Price: 15.0
7. Clicked 'Add to cart'
8. Clicked OK on the error stating 'Error - Please enter a valid quantity'
9. Navigated to Warehouse tab
10. Added the following parameters:
 - Bar Code: 1
 - Amount: 12
 - Name: Lays Chips
 - Price: 11.0
11. Clicked 'Add product' and the fields were cleared. The quantity in Warehouse did not increase
12. Added the following parameters:
 - Bar Code: 1
 - Amount: 1
 - Name: Lays Chips
 - Price: -20
13. Clicked 'Add product' - got an error stating 'Error - Please enter a valid price'
14. Stopped the timer at 01:37

Condition when the test is considered passed:

Purchase confirmation message is shown.  (5.)

When entering an invalid amount, it gives an error("Please enter valid quantity").  (8.)

When the wanted item quantity exceeds the remaining available stock, it gives an error.

("There is not enough stock of Lays chips in the warehouse! There is 1 left.") 

Unable to achieve - no purchase with quantity that exceeds remaining in stock given for test

When entering a negative price, it gives an error ("Please enter a valid price")  (13.)

Maximum Time:

The test is considered passed if it takes under 2 minutes.  (14.)

Verdict for TC1 GUI - Test passed

2.

USER STORY:

As a Warehouse Manager, I want to use the inventory system easily so I can be more efficient and make fewer mistakes.

Critical Problem:

Difficulty in using the management system, leading to increased errors and inefficiency.

Test applies to:

Both CLI and GUI.

Start Condition:

The warehouse manager has access to the inventory management.

The warehouse has the following items in stock:

- Id: 1
 - Name: Lays Chips
 - Price: 11.0
 - Quantity: 5
- Id: 2
 - Name: Chupa-chups
 - Price: 8.0
 - Quantity: 8
- Id: 3
 - Name: Frankfurters
 - Price: 15.0
 - Quantity: 12
- Id: 4
 - Name: Free Beer
 - Price: 0.0
 - Quantity: 100

Steps to take:

GUI TESTING:

Task Efficiency Testing:

- Start the GUI system

—————TIMING STARTS—————

- Warehouse manager navigates to the Warehouse section.
- Warehouse manager adds Lays chips at the quantity of 4 to the warehouse..
- Warehouse manager removes 15 Free Beers from the warehouse.
- Warehouse manager adds item with the following parameters to the warehouse:
 - Bar Code: 5
 - Amount: -1
 - Name: Kit-Kat
 - price 12.0
- Warehouse manager adds item with the following parameters to the warehouse:
 - Bar Code: 5

- Amount: 5
- Name: Kit-Kat
- price -12.0

————TIMING STOPS————

Condition when the test is considered passed:

Gives specific errors:

When adding a negative amount - **“Please enter a valid amount!”**

When adding a negative price - **“Please enter a valid price!”**

Test is considered passed when the steps have been completed without any unhandled exceptions under 2 minutes.

Maximum Time:

GUI:

The task should be completed within 2 minutes.

Post Conditions:

GUI:

When refreshing the warehouse the following updates have been made:

Lays Chips quantity goes from 5 -> 9

Free Beers quantity goes from 100 -> 85

With error rate analysis:

When entering the negative amount, it gives an error.

When entering the negative price, it gives an error

CLI TESTING:

Task Efficiency Testing:

- Start the CLI system

————TIMING STARTS————

- Warehouse manager checks the warehouse contents (command: w)

- Warehouse manager adds an item to the warehouse (command: I <10> <Red Bull> <1.5>)

- Warehouse manager checks the warehouse contents to find id of the product (command: w)

- Warehouse manager updates item quantity (command: upt <index> <2>)

- Warehouse manager removes 1 item of the first added item from the warehouse command: rem <2> <index(redbull)>)

- The warehouse manager checks the warehouse contents to confirm the changes

Error:

- Warehouse manager intentionally enters incorrect command (e.g no name, no quantity in parameters) while adding a new item. (ex. **I redbull 1.9**)
- The warehouse manager intentionally enters an incorrect(non-existent) id while removing an item. (ex. **rem 10 80**)

————TIMING STOPS————

Condition when the test is considered passed:

CLI:

The warehouse manager can complete inventory management tasks(see the changes when looking at warehouse contents) with 2 errors and the system not crashing(correct error and exception handling: “no stock item with id 80” and “unknown command”)!

Efficient Time:**CLI:**

Test is considered passed and efficient if it passes under 2min

TC2 - Testing report by LG8 - JavaEnjoyers

Critical problem - “Difficulty in using the management system, leading to increased errors and inefficiency.”

GUI**Steps completed:**

1. Started GUI system and timer
2. Went to the ‘Warehouse’ tab
3. Added the following parameters:
 Bar Code: 1
 Amount: 4
4. Clicked ‘Add product’ - Fields were cleared
5. Added the following parameters:
 Bar Code: 4
 Amount: 15
6. Clicked ‘Remove product’ - Fields were cleared
7. Added the following parameters:
 Bar Code: 5
 Amount: -1
 Name: Kit-Kat
 Price: 12.0
8. Clicked ‘Add product’ - Error was raised
9. Clicked OK on the error stating ‘Error - Please enter a valid quantity’ and fields got cleared
10. Added the following parameters:
 Bar Code: 5
 Amount: 5
 Name: Kit-Kat
 Price: -12.0
11. Clicked ‘Add product’ - Error was raised
12. Clicked OK on the error stating ‘Error - Please enter a valid price’ - fields got cleared
13. Stopped the timer at 01:51
14. Clicked ‘Refresh warehouse’ to confirm the results

Condition when the test is considered passed:

Gives specific errors:

When adding a negative amount - "Please enter a valid amount!" ✓ (9.)

When adding a negative price - "Please enter a valid price!" ✓ (12.)

Test is considered passed when the steps have been completed without any unhandled exceptions under 2 minutes. ✓ (13.)

Maximum Time:

The test is considered passed if it takes under 2 minutes. ✓ (13.)

Post Conditions:

When refreshing the warehouse the following updates have been made: (14.)

Lays Chips quantity goes from 5 -> 9 ✓ (4.)

Free Beers quantity goes from 100 -> 85 ✓ (6.)

With error rate analysis:

When entering the negative amount, it gives an error. ✓ (9.)

When entering the negative price, it gives an error ✓ (12.)

Verdict for TC2 GUI - Test passed**CLI****Steps completed:**

1. checked warehouse contents by typing 'w'

Test fails at step 2. Typing "I 10 'Red Bull' 1.5" gives "unknown command", hence making it impossible to add new items to the warehouse.

Condition when the test is considered passed:

The warehouse manager can complete inventory management tasks(see the changes when looking at warehouse contents) with 2 errors and the system not crashing(correct error and exception handling: "no stock item with id 80" and "unknown command")! ✗

Efficient Time:

The test is considered passed if it takes under 2 minutes. ✗

Verdict for TC2 CLI - Test failed