# CST8130 – Data Structures

# Assignment 1 – Test Plan

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1. **Display Current Inventory**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description of Test | Input Values | Expected Output | Actual Output / Result | Pass/Fail |
| a. Display when inventory is empty | Option **2** | "Inventory is empty." |  | Pass |
| b. Display a single item in inventory | Option **2** after adding an apple | "Item: 111 Granny Smith Apple 30 price: $0.25 cost: $0.10 orchard supplier: Apple Orchard" |  | Pass |
| c. Display multiple items | Option **2** after adding apple, carrot, and jam | List of all three items |  | Pass |

**2. Add Item to Inventory**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description of Test | Input Values | Expected Output | Actual Output / Result | Pass/Fail |
| a. Add valid fruit | Input sequence for adding apple | "Item added successfully." |  | Pass |
| b. Add valid vegetable | Input sequence for adding carrot | "Item added successfully." |  | Pass |
| c. Invalid entry for type | **w** when asked for type | "Invalid entry" |  | Pass |
| d. Invalid code (non-numeric) | **ee** when asked for code | "Invalid code" |  | Pass |
| e. Invalid quantity (non-numeric) | **ee** when asked for quantity | "Invalid entry" |  | Pass |

**3. Buy Item(s)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description of Test | Input Values | Expected Output | Actual Output / Result | Pass/Fail |
| a. Buy valid quantity of an existing item | Input sequence for buying 20 apples | "Item(s) bought successfully." |  | Pass |
| b. Try buying non-existing item | Code **444** | "Error...could not buy item" |  | Pass |

**4. Sell Item(s)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description of Test | Input Values | Expected Output | Actual Output / Result | Pass/Fail |
| a. Sell valid quantity of an existing item | Input sequence for selling 9 Raspberry Jam | "Item(s) sold successfully." |  | Pass |
| b. Try selling more than available quantity | Input sequence for selling 15 Raspberry Jam | "Error...could not sell item" |  | Pass |

**5. Error Handling for Inputs**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description of Test | Input Values | Expected Output | Actual Output / Result | Pass/Fail |
| a. Enter non-numeric option | **j** in main menu | "...Invalid input, please try again..." |  | Pass |
| b. Enter invalid numeric option | **6** in main menu | "...Invalid input, please try again..." |  | Pass |
| c. Invalid jar size (non-numeric) | Input non-numeric value for jar size | "Invalid entry" |  | Pass |