**Module6 : Shopping Cart**

**Application**: Create a shopping cart application that allows users to add/modify/delete items. Display a final summary of items

**Assumptions**:

* Items a user can trade are fixed (3 items), the application have no capability to add new items: Nike Romaleos, Chocolate Chips, and Powerbeats 2 Headphones
* User does have the capability to update the elements of each item (Defined as dictionary to handle the data as mutable)

**Pseudo Code**:

1. Prompt all shopping cart operations
2. Choose an operation
   1. **Add item to the cart**
      1. Prompt the user for an item to add
      2. Verify if the item is in Master List

* If ‘YES’, add the item to the cart
* If ‘NO’, alert to enter a valid item
  + 1. Repeat #1
  1. **Remove the item from the cart**
     1. Prompt the user for an item to remove
     2. Verify if the item is in the cart
* If ‘YES’, remove the item
* If ‘NO’, alert to enter a valid item
  + 1. Repeat #1
  1. **Change item quantity**
     1. Prompt the user for an item to modify
     2. Verify if the item is in the cart
* If ‘YES’, change item quantity value
* If ‘NO’, alert to enter a valid item
  + 1. Repeat #1
  1. **Output items description**
     1. Display each item description
     2. Repeat #1
  2. **Output shopping cart**
     1. Display items added, quantity, and incurred cost
     2. Repeat #1
  3. **Quit**
     1. Display final summary

**Challenges encountered and Learning:**

|  |  |
| --- | --- |
| **Operation** | **Challenges Encountered/Learning** |
| Add items | Application of List functions |
| Remove item |  |
| Change Item Quantity | Learnt datetime module and functions  Handling Item quantity updates  Conditional Operations |
| Output items description |  |
| Output shopping cart | Elimination of duplicate code |
| Quit |  |
| Main | Regex operations  Object initiations |
| Class & Constructor | Class Definitions  Defining Methods  List operations  Dictionary Operations |

**GitHub link:**

<https://github.com/sahiraj15/aiml/blob/main/csc500/m6_shopping_cart.py>

**Results:**

**Use case #1 :** Add items

A screenshot of a computer program

Description automatically generatedHappy Path Scenario:

A screenshot of a computer program

Description automatically generatedFailure Scenario:

**Use case #2**: Remove item

A screenshot of a computer program

Description automatically generatedHappy Path Scenario:

**A screenshot of a computer program

Description automatically generated**

**A screenshot of a computer

Description automatically generatedA screenshot of a computer program

Description automatically generated**Failure Scenario:

**A screenshot of a computer program

Description automatically generatedUse case #3**: Change item quantity

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Description automatically generated

**A screenshot of a computer program

Description automatically generatedUse case #4**: Output items description

A screenshot of a computer

Description automatically generated**Use case #5**: Output shopping cart

A screenshot of a computer

Description automatically generated**Use case #6**: Quit shopping cart