

Case Study 1

Course(s): Java DSA

Day: 4

Problem Statement

Implement a Shopping Cart which uses the Circular Doubly LinkedList Data Structure. The following features must be available in the Shopping Cart

1. Add Product
2. Remove Product
3. CheckOut

Steps

1. Create a class Product with suitable attributes
2. Create a class Shopping Cart, which is going to be a Circular Doubly Linked List
3. Implement methods in Shopping Cart class
 - a. addProduct(Product)
Takes product as input and add it to the linked list
 - b. removeProduct(Product)
remove product from the linkedlist and updates the list accordingly
 - c. checkOut()
Iterates in the LinkedList and displays all the products in the list with size and total amount in the Shopping Cart
4. Create a Menu for the User where the options to add, remove and checkout will be shown eg:
 - 1 : Add Product
 - 2: Remove Product
 - 3: CheckOut
5. Make sure to use the Scanner class to perform the suitable read operations