

Database and Data Structures 2

Linked Lists – Tutorial

Create a shopping cart for a user that visits an e-commerce site. Use a data structure of your choice to store what the user has selected to purchase. The user is authenticated with a specific userID, and can add as many items to their cart where the shopping cart will store the no of items and the details of each item. Each shopping cart is distinguished by the userID. When the user checkout, the shopping cart will be processed and the bill will be created.

- a. You need to be able to search through the shopping cart.
- b. If a person enters in a duplicate item that is already in the cart then it should increase the quantity in the cart.
- c. User should be able to delete any item that was added to the shopping cart.
- d. Or reduce the quantity of the item bought

The following details are recorded when an item is added to the shopping cart,

- userID
- Item Name
- Item unit Price
- Quantity

Implement the following operations,

- Insert items
- Search the list with userId and item name
- Update the item quantity
- Remove an item bought by a particular user.
- Filter the list of Items a particular user bought.
- Print the list of items and quantities bought by a user.
- Calculate the bill for a user.