Solution: Implement Linked list

Steps to Implement the Solution:

**Step 1: Declare and Initialize the LinkedList**

First, create a LinkedList to store the grocery items. This is done by declaring and initializing a LinkedList<String> object named groceryList.

LinkedList<String> groceryList = new LinkedList<>();

**Step 2: Add Initial Items to the List**

Add five items to the list using the add() method. These items include "Milk," "Bread," "Eggs," "Butter," and "Tomatoes."

**Step 3: Update the Second Item**

Next, you realize that "Bread" should be updated to "Whole Wheat Bread." use the set() method to update the second item in the list (index 1).

**Step 4: Remove an Item (Butter)**

After reviewing the list, you decide that "Butter" is no longer needed. use the remove() method to remove "Butter" from the list.

**Step 5: Add Another Item (Cheese)**

Remember that you need to buy "Cheese." Using the add() method again, add "Cheese" to the list.

**Step 6: Print the Final List**

Finally, print the entire list to verify that all the changes have been made correctly. This ensures the final grocery list is accurate and complete.

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import java.util.LinkedList;

public class GroceryListManager {

public static void main(String[] args) {

// Step 1: Declare and initialize the LinkedList

LinkedList<String> groceryList = new LinkedList<>();

// Step 2: Add initial items to the list

groceryList.add("Milk");

groceryList.add("Bread");

groceryList.add("Eggs");

groceryList.add("Butter");

groceryList.add("Tomatoes");

// Step 3: Update the second item (Bread to Whole Wheat Bread)

groceryList.set(1, "Whole Wheat Bread");

// Step 4: Remove an item (Butter)

groceryList.remove("Butter");

// Step 5: Add another item (Cheese)

groceryList.add("Cheese");

// Step 6: Print the final list

System.out.println("Final Grocery List: " + groceryList);

}

}