CMSC133 QUIZ #4 KEY SPRING 2020

One Possible Solution

```java
public class ShoppingCart {
    private String customer;
    private int itemsCount;
    private StringBuffer items;
    private static final double MAX_ITEMS_NUMBER = 40;

    public ShoppingCart(String customer) {
        this.customer = customer;
        items = new StringBuffer();
    }

    public ShoppingCart addItem(String desc) {
        if (itemsCount < MAX_ITEMS_NUMBER) {
            items.append(desc);
            itemsCount++;
        }

        return this;
    }

    public ShoppingCart specialItemAdd(String desc) {
        String tai = "Spec:" + desc;

        /* HERE */
        addItem(tai);

        return this;
    }

    public String toString() {
        return "ShoppingCart [customer=" + customer + ", itemsCount=" + itemsCount + ", items=" + items + "]";
    }
}

public class Driver {
    public static void proc(ShoppingCart[] allc, int which, String item) {
        allc[which].specialItemAdd(item);

        System.out.println(allc[1]);
        System.out.println(allc[3]);
    }

    public static void main(String[] args) {
        ShoppingCart laura = new ShoppingCart("Laura");
        laura.addItem("milk");
        ShoppingCart tom = new ShoppingCart("Tom");
        tom.addItem("salt");

        ShoppingCart[] carts = new ShoppingCart[4];
        carts[1] = laura;
        carts[3] = tom;

        proc(carts, 1, "oil");
    }
}
```

Stack

Heap

Static Area

MAX_ITEMS_NUMBER

40

specialItem Add
- tai
- desc
- this

proc
- item
- which   1
- allc

main
- carts
- tom
- laura
- args

Spec:oil

oil

length   4

| null | | null | |

Tom

customer
itemsCount   1
items

salt

customer
itemsCount   1
items

Laura

milk

length   0