

## Object diagram for shopping system

### will (shopper)

-loyaltyCard: true  
-name: William

### Stock

-items: [Cola, BLT sandwich]

+getItems(): ArrayList<Buyable>

### wills\_basket (basket)

-items: [Cola, BLT sandwich]

+empty(): void  
+addItem(Buyable item): void  
+removeItem(Buyable toRemove): Buyable  
+getItems(): ArrayList<Buyable>

### cola (drink)

name: Cola  
price: 2.99  
bogof: true

### BLT (sandwich)

name: Cola  
price: 2.99  
bogof: true

### Checkout

-bogofItems: ArrayList<Buyable>  
-bogofDiscount: double  
-basket: wills\_basket  
-shopper: will

+getFinalTotal(): double  
+applyLoyaltyCardDiscount(): double  
+applyTenPercentDiscount(): double  
+applyBogofDiscount(): double  
+getTotal(): double  
+createBogofArray(ArrayList<Buyable> items): void  
+calcBogofDiscount(ArrayList<Buyable> bogofItems): void  
+getBogofDiscount(): double