

```

1  var customer= {Id:"", couponStatus:"default", payable:0, ...};
2  var coupon= {Id:"", expired:false...}
3  var availItems= [{name:"", price:0, count:0},...]
4  var selItem= {name:"", price:0, quantity:0};
5  ...
6  $document.ready(function() {
7    availItems=getItemsFromServer(url);
8    coupon= getCouponFromServer(url + customer.Id);
9    ...
10   $(".merchandise").click(addToCart);
11   $("#shopCart").click(viewCart);
12   });
13
14   function addToCart() {
15     var coupElem= $("#couponButt");
16     selItem= getItemInfo($(this));
17     for(var i=0; i<availItems.length; i++){
18       if(availItems[i].name == selItem.name)
19         availItems[i].count -= selItem.quantity;
20     }
21     var price= selItem.price * selItem.quantity;
22     if(!coupon.expired){
23       coupElem.removeClass(customer.couponStatus);
24       customer.couponStatus= coupon.Id + '-' + 'used';
25       price -= coupElem.data('value');
26       coupElem.addClass(customer.couponStatus);
27       coupon.expired=true;
28     }
29     customer.payable += price;
30   }
31
32   function viewCart(){
33     ...
34     if($("#couponButt").attr("class") == 'default' && customer.payable==0)
35       showMsg('Shopping cart is empty');
36     else
37       $(".div.shopContainer").append("<p>" + "Total purchase is: $" +
38         customer.payable + "</p>");
39   }

```

(a)

```

1  @Test
2  public void testCase1(){
3    Select quantity = new Select(driver.findElement(By.
4      id("quantityDropDown")));
5    quantity.selectByIndex(1);
6    WebElement item = driver.findElements(By.css("merchandise"));
7    item.click();
8    WebElement cart = driver.findElements(By.id("shopCart"));
9    cart.click();
10   String expectedMsg = "Total purchase is: $70";
11   String msg=driver.findElements(By.cssSelector
12     ("div.shopContainer")).getText();
13   assertEquals(msg, expectedMsg);
14 }

```

(b)