

Item.java

```
1 package model.catalog;
2
3 import javax.xml.bind.annotation.XmlAttribute;
4
5 @XmlRootElement(name="item")
6 public class Item {
7
8     private String name, number, unit;
9
10    private double price, totalPrice;
11    private int quantity, catID;
12
13    public Item() {
14    }
15
16    public Item(String name, double price, int quantity, String
17    number, String unit) throws Exception {
18        this(name, price, quantity, number, 0, unit);
19    }
20
21    public Item(String name, double price, int quantity, String
22    number, int catId, String unit) throws Exception {
23        setName(name);
24        setPrice(price);
25        setQuantity(quantity);
26        setNumber(number);
27        setCatID(catID);
28        setUnit(unit);
29    }
30
31    @XmlElement(name="name")
32    public String getName() {
33        return name;
34    }
35
36    public void setName(String name) {
37        this.name = name;
38    }
39
40    @XmlElement(name="price")
41    public double getPrice() {
42        return Utils.round(price, 2);
43    }
44
45 }
```

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```
47     public void setPrice(double price) throws Exception {
48         if (price < 0.0) {
49             throw new IllegalArgumentException("Price < 0.0");
50         }
51         this.price = Utils.round(price, 2);
52     }
53
54     @XmlElement(name="quantity")
55     public int getQuantity() {
56         return quantity;
57     }
58
59     public void setQuantity(int quantity) throws Exception {
60         if (quantity < 0) {
61             throw new IllegalArgumentException("Qty < 0");
62         }
63         this.quantity = quantity;
64     }
65
66     public void setQuantity(String quantity) throws Exception {
67         int qty = Integer.parseInt(quantity);
68         this.setQuantity(qty);
69     }
70
71     @XmlAttribute(name="number")
72     public String getNumber() {
73         return number;
74     }
75
76     public void setNumber(String number) {
77         this.number = number;
78     }
79
80     public int getCatID() {
81         return catID;
82     }
83
84     public void setCatID(int catID) {
85         this.catID = catID;
86     }
87
88     public String getUnit() {
89         return unit;
90     }
```

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```
91
92     public void setUnit(String unit) {
93         this.unit = unit;
94     }
95
96     public void setTotalPrice(double totalPrice) {
97         this.totalPrice = Utils.round(totalPrice, 2);
98     }
99
100     @XmlElement(name="extended")
101     public double getTotalPrice() {
102         return Utils.round(totalPrice, 2);
103     }
104
105     public void increaseQty() {
106         this.quantity++;
107     }
108
109     public void increaseQty(int qty) {
110         this.quantity += qty;
111     }
112
113     public void increaseQty(String qtyStr) throws Exception {
114         int qty = Integer.parseInt(qtyStr);
115         this.setQuantity(qty);
116     }
117
118     public double computeTotalPrice() {
119         this.setTotalPrice(this.price * this.quantity);
120         return Utils.round(this.totalPrice, 2);
121     }
122
123     public String toString() {
124         return String.format("Name: %s | Price: %s | Quantity: %s
| Number: %s | CatId: %s | Unit: %s \n", name, price, quantity,
number, catID, unit);
125     }
126
127     @Override
128     public boolean equals(Object obj) {
129         if (this == obj) return true;
130         if (obj == null) return false;
131         if (!(obj instanceof Item)) return false;
132
```

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```
133     Item other = (Item) obj;  
134     if (!this.number.equals(other.number)) {  
135         return false;  
136     }  
137  
138     return true;  
139 }  
140  
141  
142 }  
143
```