STREAM: TICKET

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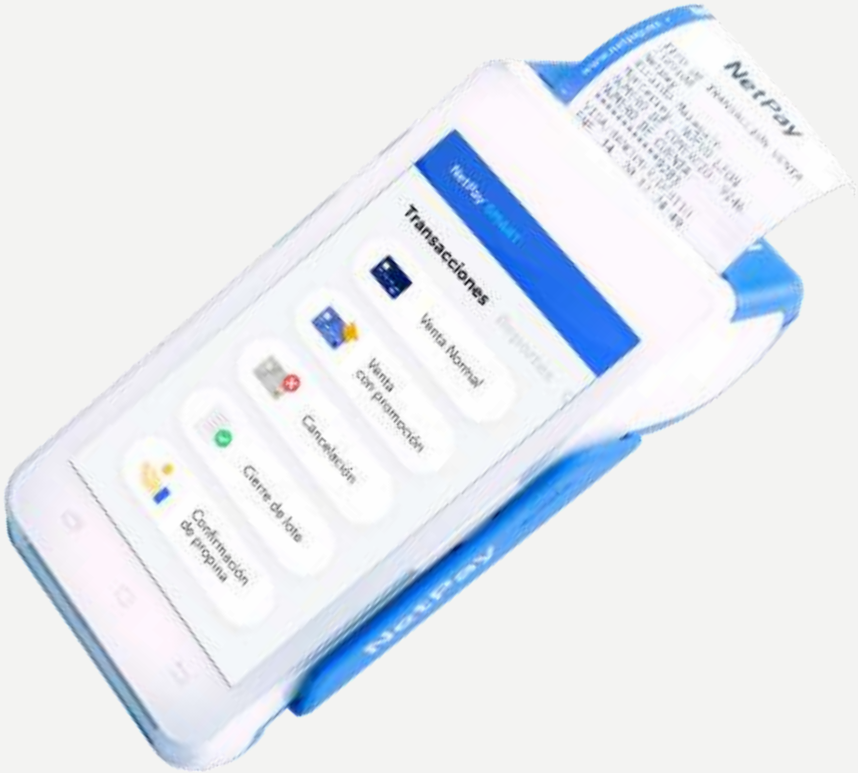
TICKET

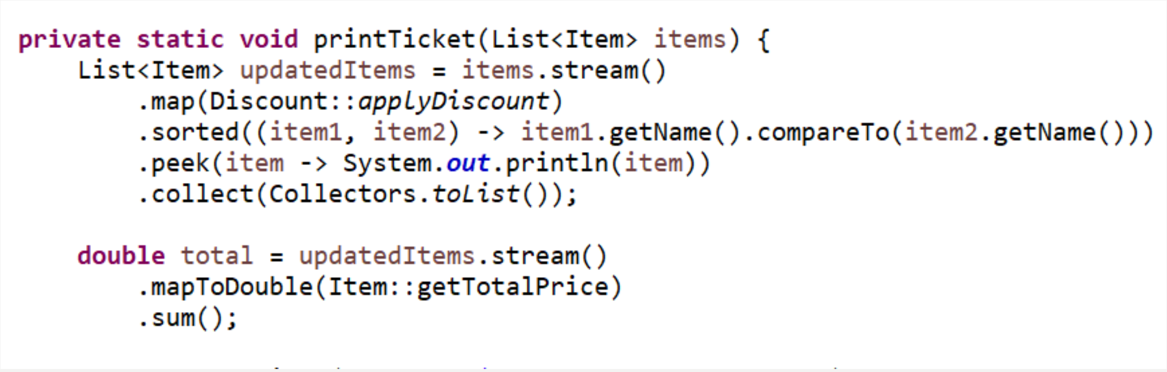
I wanted to make a ticket based program since hearing about how the streams work. This program is pretty basic and the main objective is creating a ticket from a list of ítems when doing some shopping for a point of sale terminal in a super market.



TICKET.JAVA

This .java contains the main and the stream, here we declare the New Items with the order of Name, Price and quantity: **new** Item("Cereal", 83.90, 1).

First I declare a list of items and we create a stream,

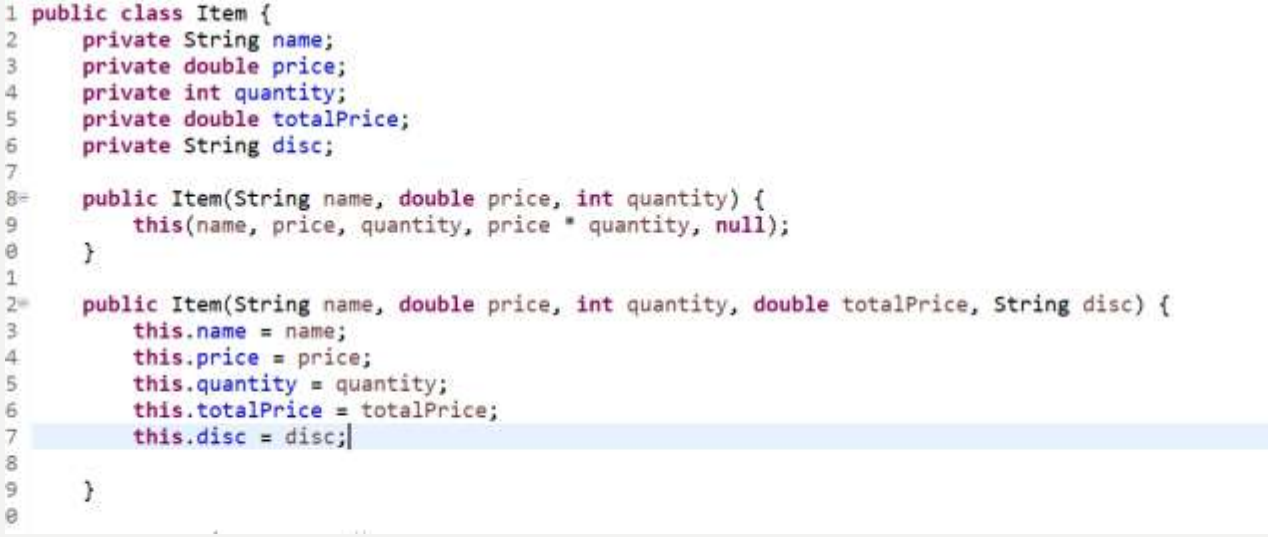


```
private static void printTicket(List<Item> items) {
    List<Item> updatedItems = items.stream()
        .map(Discount::applyDiscount)
        .sorted((item1, item2) -> item1.getName().compareTo(item2.getName()))
        .peek(item -> System.out.println(item))
        .collect(Collectors.toList());

    double total = updatedItems.stream()
        .mapToDouble(Item::getTotalPrice)
        .sum();
```

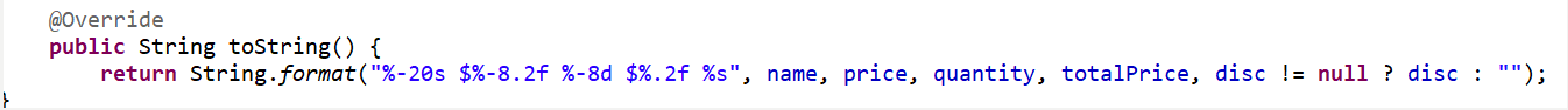
- Here I apply a Map to discount the ítems that have a quantity greater tan 5.
- Then I Sort out the ítems by name
- Next I peek to print out the ítems out
- The ítems are then collected into another list for the final two steps in which from the collected list i maptodouble and get the total Price of each ítem (Prices x quantity).
- Finally i sum up these total prices and print them out.

ITEM.JAVA

Here the Item class its declared with all its atributes being name, price, quantity, total price and the discount. The main feature is the to print which takes all the values and print them with the peek in the stream.



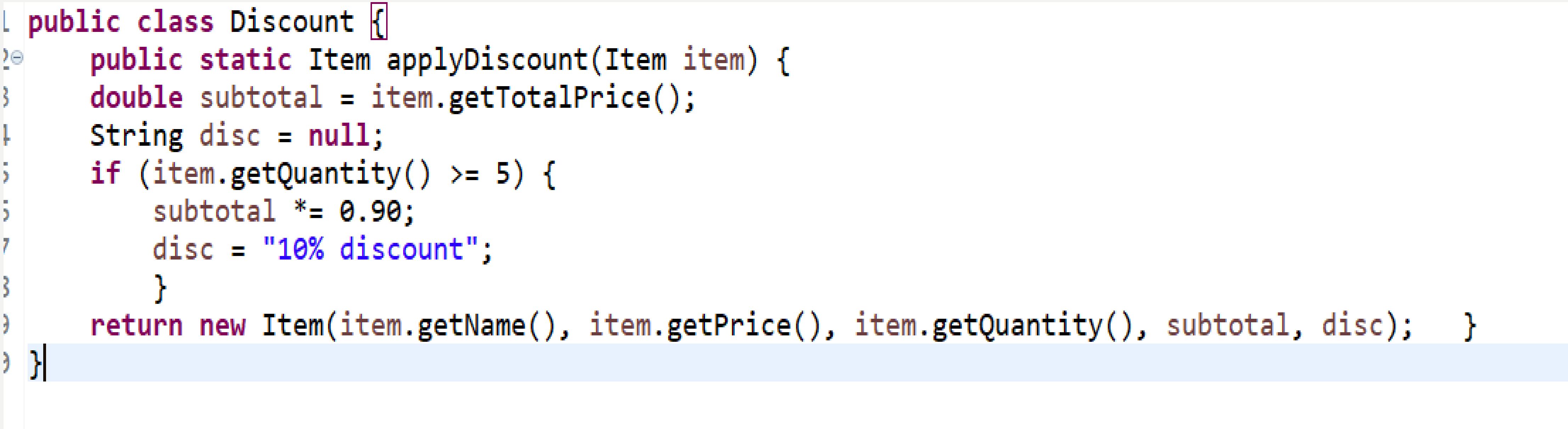
```java
public class Item {
    private String name;
    private double price;
    private int quantity;
    private double totalPrice;
    private String disc;

    public Item(String name, double price, int quantity) {
        this(name, price, quantity, price * quantity, null);
    }

    public Item(String name, double price, int quantity, double totalPrice, String disc) {
        this.name = name;
        this.price = price;
        this.quantity = quantity;
        this.totalPrice = totalPrice;
        this.disc = disc;

    }

```



```java
    @Override
    public String toString() {
        return String.format("%-20s $%-8.2f %-8d $%.2f %s", name, price, quantity, totalPrice, disc != null ? disc : "");
}
```

DISCOUNT.JAVA

- The smallest class that manages the discount of the products. Here the products that appy the >=5 quanitity get a 10% discount.



```java
public class Discount {
    public static Item applyDiscount(Item item) {
    double subtotal = item.getTotalPrice();
    String disc = null;
    if (item.getQuantity() >= 5) {
        subtotal *= 0.90;
        disc = "10% discount";
        }
    return new Item(item.getName(), item.getPrice(), item.getQuantity(), subtotal, disc);   }
}
```