Exercise (from last year's partial exam)

We need to build an application for the management of a store of second hand items.

The warehouse manages products, which have a name, a price in euros, and a discount that can be either a configurable percentage of the total price, or a fixed amount of euros. The discounts have a text that describes the promotion. Once a product has been created, its price and discount cannot be modified.

Using principles of object orientation, encode in Java the classes necessary for the following program to output below.

```
package products;

public class Warehouse {
  public static void main(String[] args) {
   // p1 is a Product with price 150.0€, and 15.0% discount due to promotion "no VAT"
   Product p1 = new Product("Floor lamp", 150.0,
                                    new PercentageDiscount("No VAT", 15.0));
   // p2 is a Product with price 90.0€, and 10.0€ discount by “clearance”
   Product p2 = new Product("Cutlery 50 items", 90.0,
                                    new FixedDiscount("Clearance", 10.0));
   System.out.println("Products in warehouse:\n "+p1+"\n "+p2);
   System.out.println("Higer price: "+Product.higherPrice());
  }
}
```

Output:

Products in warehouse:

Floor lamp price: 127.5 with discount: No VAT

Cutlery 50 items price: 80.0 with discount: Clearance

Higer price: 127.5