

Test

A shop sells four kinds of toys: dolls, games, toy soldiers and cars. Because it is wanted a better management of the stock and the staff decides to implement an application for toys selling management.

Each kind of toy has the following information: the product code, the base price and the supplier name. The product code has two parts: the product kind’s code and the supplier’s code. Because the shop has only two suppliers: “Aradeanca S.A.” which has the code 1 and “Corint Junior” which has the code 2, the code of a doll is 11 or 12, the code of a game is 21 or 22 code, and so on.

Discount. The shop offers a 10% discount for all products, excepting the toy cars where the discount is of 12%. In addition, based on an agreement with ”Aradeanca S.A”, all the toys which arrive from this supplier have a supplementary discount of 5%. The total discount is computed by applying to the base price first the discount offered by the supplier and then, to the new price, the discount offered by the shop.

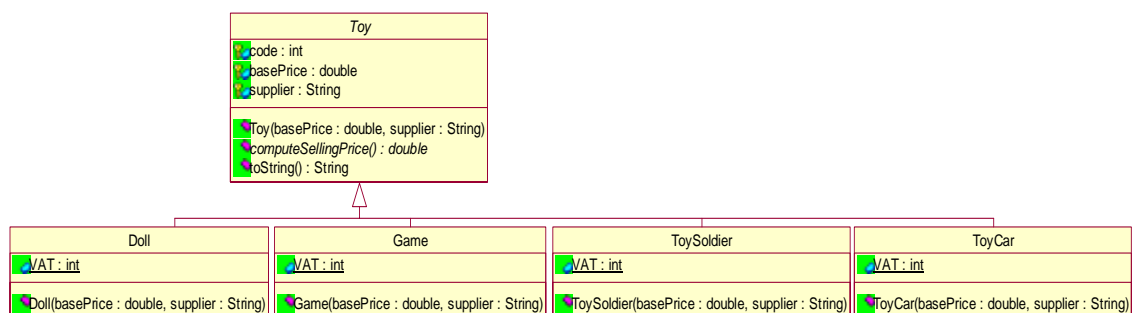
VAT For each toy sold, the shop applies a VAT tax differentiated in function of the toy kind. This tax may vary, so it should be stored in a file “vat.txt”. The file might have the following content:

```
doll=5
game=7
toy soldier=10
toy car= 15
```

In order to computer the final price, the VAT tax is applied (added) after all discounts were considered.

Requirements.

A. Write a program for toys selling management. The program uses at least the following UML class diagram. Note that in the diagram the Toy class is abstract, having an abstract method computeSellingPrice().



B. Test the program, writing a test class that creates an array by Toy type that contains at least 4 toys by different kinds: dolls, games, toy soldier, and toy car. Then, call and print the selling price of each toy from array.

C. Modify the program such that it displays information about toys in an ascending order after the sale prices, and if two sale prices are equals, information is displayed in descending order after the base price.