

Restaurant Account Management

The restaurant Vistamare asks you to develop a program to automatically generate receipts for its customers. The information used by the program is stored in two different files. In the first file, which is called menu.txt, the menu products are listed, one per line, and characterized by the following information, separated by commas:

```
ID, description, unit_cost, VAT
```

Where ID is a unique alphanumeric code, description is the textual description of the product (a string with a maximum length of 25 characters), unit_cost is its cost in euros (expressed as a floating-point number), and VAT is the VAT percentage (expressed as an integer) included in the final price.

The information to process the receipt is contained in a second file, order.txt, which contains the list of consumed products, one per line, and characterized by the following information, separated by a comma:

```
ID, quantity
```

Where ID is the product code, and quantity is the quantity of that product ordered by the diners.

Based on this information, the program must print the receipt to the screen, in which the ordered products must appear in ascending order of VAT, reporting for each one on a single line, the ordered quantity, the product name, the applied VAT, and the total cost of the product.

At the end of the receipt, the total cost must be printed, and the amount of VAT applied to the consumed products must be indicated. NOTE: The menu item cost is inclusive of VAT. So, given the product cost and the VAT percentage applied to the final cost, the VAT must be found. For example, a product with 15% VAT and a cost of 6â,- has a VAT-exclusive cost of 5.22â,- and VAT of 0.78â,-.

It is assumed that all files are correct, the product codes in the order are all present in the restaurant menu, and a product code does not repeat more than once in the order.

Example File menu.txt

```
0001, Natural Water, 1.5, 7
0003, Coca Cola, 3, 7
C243, Salmon Agnolotti, 14, 22
0005, Orange Fanta, 3, 7
A43D, Medium Beer, 5, 15
C240, Appetizer, 9, 22
A43B, Red Wine, 6, 15
A43C, Small Beer, 3, 15
D100, Fillet, 12, 22
0004, Lemon Fanta, 3, 7
C242, White Pasta, 10.5, 22
D101, Sea Bream, 16, 22
D102, Sea Bass, 18, 22
C241, Pasta with Sauce, 5, 22
0006, Tonic Water, 3, 7
A43A, White Wine, 6, 15
0002, Mineral Water, 1.5, 7
D103, Roast with Mushrooms, 17, 22
```

File ordine.txt

```
C241, 2
C243, 1
0004, 1
D102, 3
D100, 2
0001, 1
0002, 2
A43A, 4
```

Receipt (printed on output)

RICEVUTA

1	Fanta Lemon	3.00	IVA	7.00%
1	Acqua Naturale	1.50	IVA	7.00%
2	Acqua Minerale	3.00	IVA	7.00%
4	Vino Bianco	24.00	IVA	15.00%
2	Pasta al sugo	10.00	IVA	22.00%
1	Agnolotti al Salmone	14.00	IVA	22.00%
3	Branzino	54.00	IVA	22.00%
2	Filetto	24.00	IVA	22.00%

Totale: 133.50â,-
Di cui IVA: 22.01â,-