**Vending Machine**

**Description**

We would like you to create a model of virtual vending machine

(https://en.wikipedia.org/wiki/Vending\_machine) in an event driven way, adhering to the CQRS principles. We would like to see Commands, Queries and Events used to acomplish the task. You could (for example) use MediatR or a similar library or just roll your own.

Complex UI is not required, a simple console app will do.

In the case of a missing requirement please come up with a reasonable solution and document your decision.

**Initial data:** The vending machine contains the following products:

* Tea (1.30 eur), 10 portions
* Espresso (1.80 eur), 20 portions
* Juice (1.80 eur), 20 portions
* Chicken soup (1.80 eur), 15 portions

At the start the vending machine wallet contains the following coins:

* 10 cent, 100 coins
* 20 cent, 100 coins
* 50 cent, 100 coins
* 1 euro, 100 coins

Vending machine should support the following features:

* Accept coins - Customer should be able to insert coins to the vending machine.
* Return coins - Customer should be able to take the back the inserted coins in case customer decides to cancel his purchase.
* Sell a product -Customer should be able to buy a product.
* If the product price is less than the deposited amount, the Vending machine should show a “Thank you” message and return the difference between the inserted amount and the price *using the smallest number of coins possible*.
* If the product price is higher than the amount inserted, Vending machine should show a message “Insufficient amount”
* The amount and type of coins returned should be shown by the UI.