Vegetable market management system

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Description

Create a vegetable management System (VMMS) in Java. VMMS is quite useful software. Our basic example is used to show how does it works in online environment , which have the following features:

1. Storage for the products(vegetables);
2. Ability to add the vegetable to the online market;
3. Ability to remove the vegetable from the online market;
4. Ability to print the price of particular vegetable on the console;

VMMS structure

We will need the following classes for the software:
1. Product – the vegetable itself.
2. VMMS –vegetable market management system.
3. Market Tester – the tester class. This class will be used to test our management system.

Class book	***Class VMMS***
String - name	***List <Book> | storage***
String - price	***void addVegetable(Vegetable)***
	Boolean removeVegetable (Vegetable)
	Void printStorage()

Class Product

The class Product should have several fields, including name and price. This class can be implemented in the following way:

```java
public class Vegetable {
    2 usages
    private String name, price;

    3 usages
    public String getName() {
        return name;
    }

    2 usages
    public void setName(String name) {
        this.name = name;
    }

    3 usages
    public String getPrice() {
        return price;

    }
    2 usages
    public void setPrice(String price) {
        this.price = price;
    }
}
```

Class VMMS

The vegetable market management system should have an inner structure for storing products(vegetables).The management system should have methods for adding the new vegetables and removing the old ones. It should have the ability to print the entire market content when needed. The class can be implemented in the following way:

```java
package midterm.tatia_iosebashvili_1.task3;

import java.util.ArrayList;
import java.util.List;

2 usages
public class VMMS {
    6 usages
    private List<Vegetable> storage = new ArrayList<Vegetable>();
    // adds the vegetable to the online market
    3 usages
    public void addVegetable(Vegetable vegetable) {
        storage.add(vegetable);
    }
    // removes the vegetable from the market
    1 usage
    public boolean removeVegetable(Vegetable vegetable) {
        boolean removed = false;
        for (int i = 0; i < storage.size(); i++) {
            Vegetable v = storage.get(i);
            if (v.getName().equals(vegetable.getName()) && v.getPrice().equals(vegetable.getPrice())) {
                storage.remove(i);
                removed = true;
                break;
            }
        }
        return removed;
    }
```

```java
1 usage
public void printStorage() {
    if (storage.isEmpty()) {
        System.out.println("The storage is empty");
    } else {
        for(Vegetable v: storage) {
            System.out.println(v.getPrice() + ", " + v.getName());
            System.out.println();
        }
    }
}
```

LMS Tester class

Now let's test our management system. First, create some products- vegetables. Then create VMS and add those vegetables to the online market. Then try to remove some of the vegetables.

```java
package midterm.tatia_iosebashvili_1.task3;

public class OnlineMarketTester {
    public static void main(String[] args) {
        Vegetable v1 =new Vegetable();
        v1.setName("Tomato");
        v1.setPrice("2.5 lari");

        Vegetable v2 = new Vegetable();
        v2.setName("Carrot");
        v2.setPrice("3 lari");
        VMMS vmms = new VMMS();
        vmms.addVegetable(v1);
        vmms.addVegetable(v1);
        vmms.addVegetable(v2);

        vmms.removeVegetable(v1);

        vmms.printStorage();
    }

}
```