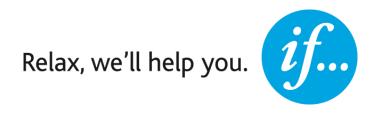
Home task for developerVending machine

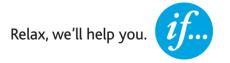
2014 / Māris Lazdiņš





Par If

- If P&C Insurance Holding Ltd (If) ir lielākā riska apdrošināšanas kompānija Ziemeļeiropā, kā arī vadošā apdrošināšanas kompānija Baltijā.
- If Latvijā šobrīd aizņem 11.6 % no tirgus, ierindojot to Top 4 vidū.
 15 gadu pieredze tirgū.
- If piedāvā **pilnu riska apdrošināšanas pakalpojumu klāstu** gan privātpersonām, gan uzņēmumiem Zviedrijā, Somijā, Norvēģijā, Dānijā, Baltijas valstīs un Krievijā.
- If caur riska kontroli rūpējas par klientu finansiālo drošību un stabilitāti pirms un pēc apdrošināšanas gadījuma iestāšanās.





Vending machine

Think about it as a physical machine:





Task

Implement Vending machine in code using TDD approach

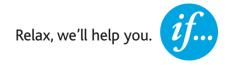
There are following features:

- You can update product list at any time
- You can insert coins, get coins back and get remainder
- You can buy 1 product at once for inserted coins
- Machine accepts following coins: 5¢, 10¢, 20¢, 50¢, 1 € and 2 €



We are giving Vending machine interface:

```
public interface IVendingMachine
   /// <summary>Vending machine manufacturer.</summary>
   string Manufacturer { get; }
   /// <summary>Amount of money inserted into vending machine. </summary>
   Money Amount { get;
   /// <summary>Products that are sold.</summary>
   Product[] Products { get; set; }
   /// <summary>Inserts the coin into vending machine.</summary>
   /// <param name="amount">Coin amount.</param>
   Money InsertCoin(Money amount);
   /// <summary>Returns all inserted coins back to user.</summary>
   Money ReturnMoney();
   /// <summary>Buys product from list of product.</summary>
   /// <param name="productNumber">Product number in vending machine product list.
</param>
   Product Buy(int productNumber);
```





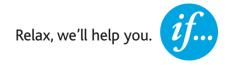
We are giving Vending machine interface:

```
public struct Money
{
    public int Euros { get; set; }
    public int Cents { get; set; }
}

public struct Product
{
    /// <summary>Gets or sets the available amount of product.</summary>
    public int Available { get; set; }

    /// <summary>Gets or sets the product price.</summary>
    public Money Price { get; set; }

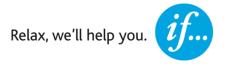
    /// <summary>Gets or sets the product name.</summary>
    public string Name { get; set; }
}
```





Take into account

- User Visual Studio 2012 express or any paid and/or newer version if available
- Use TDD approach
- Use C# language
- Think about OOP design patters and S.O.L.I.D. principles
- In case of error throw exception of different type for each situation
- Comments and code must be in English language
- No need for UI
- As a result I need <u>source code</u> of this task





Have a nice day!

Māris Lazdiņš

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