

Vending Machine

Design a vending machine to buy the water, soda, and candies

Customer can:

1. Put in the coins
2. Select the goods(candies or soda)
3. Get the soda or candies
4. Hand out the changes
5. Cancel the transaction

I only choose soda and use cash to pay to make an example to let the project more simple.

Class: VendingMachine

States: hasCoins, noCoins, goodsSoldOut, goodsCount

statesNow=noCoins, price, totalAmount

Behavior:addDrinks, insertCoins, backCharges, chooseGoods, dispense

String statesNow=noCoins;

```
Int getTotalAmount(){  
    Return totalAmount;  
}
```

```
Int setTotalAmount(totalAmount){  
    This.totalAmount=totalAmount;  
}
```

```
Void insertCoins(){  
    If (statesNow==noCoins)  
        System.out.println("please insert money");  
        StatesNow=hasCoins;  
        System.out.println("has money now");  
    Else  
        System.out.println("already has money");  
}
```

```
Void backCharges(){  
    If (statesNow==noCoins)  
        System.out.println("has no money to return")  
    Else
```

```

        StatesNow=noCoins;
    }

    int chooseGood(){
        drinkID[ ] drinkYouWant=new drinkID[7];
        scanner i=new Scanner(system.in);
        return drinkYouWant(i);
    }

    Void dispense(){
        switch (statusNow)
        {
            case noCoins;
            case hasCoins:
                system.out.println("something wrong");
            case totalAmount=0:
                system.out.println("sold out");
            case totalAmount>0:
                totalAmount--;
                System.out.println("please waiting for a second");
        }
        break;
    }

```

Class: customer

States: cashNumber, name,

Behavior: chooseSoda, chooseCandy, inputCoins, receiveSoda, receiveCandy,
receiveCharges

```

    Void main(){
        VendingMachine machine=new machine;
        Machine.chooseGood();
        Machine.insertCoins();
        Machine.backCharges();
        Machine.dispense();
    }

```

Class: drink

States: drinkID, price, totalAmount, drinkName

```

    Public drinkID(string drinkID){
        Return drinkID;
    }

```

```
}
```

```
    Public drinkName(int drinkName){
```

```
        Return drinkName;
```

```
}
```

```
    Public price(int price){
```

```
        Return price;
```

```
}
```

Class: saler

Behavior: getDrinkName, getPrice, setDrinkName, setPrice

```
public String getDrinkName() {
```

```
    return drinkName;
```

```
}
```

```
public void setDrinkName(String drinkName) {
```

```
    this.drinkName = drinkName;
```

```
}
```

```
public int getPrice() {
```

```
    return price;
```

```
}
```

```
public void setPrice(int price) {
```

```
    this.price = price;
```

```
}
```

