
Something's Rotten at the Gilded Rose: A Python Refactoring Tale

— Chris C —

Who am I? (i.e. Shameless Self Promotion)

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What is the Gilded Rose Kata?

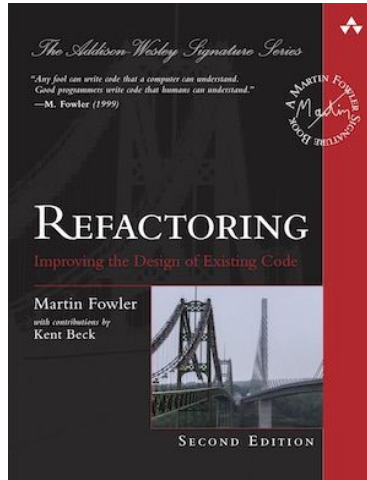
Refactoring exercise created by Terry Hughes and expanded by Emily Bache



```
1 class GildedRose(object): 3 usages  Chris C
6 def update_quality(self): 2 usages  Chris C
7     for item in self.items:
8         if item.name != "Aged Brie" and item.name != "Backstage passes to a TAFKAL80ETC concert":
9             if item.quality > 0:
10                 if item.name != "Sulfuras, Hand of Ragnaros":
11                     item.quality = item.quality - 1
12             else:
13                 if item.quality < 50:
14                     item.quality = item.quality + 1
15                     if item.name == "Backstage passes to a TAFKAL80ETC concert":
16                         if item.sell_in < 11:
17                             if item.quality < 50:
18                                 item.quality = item.quality + 1
19                             if item.sell_in < 6:
20                                 if item.quality < 50:
21                                     item.quality = item.quality + 1
22 if item.name != "Sulfuras, Hand of Ragnaros":
23     item.sell_in = item.sell_in - 1
24 if item.sell_in < 0:
25     if item.name != "Aged Brie":
```

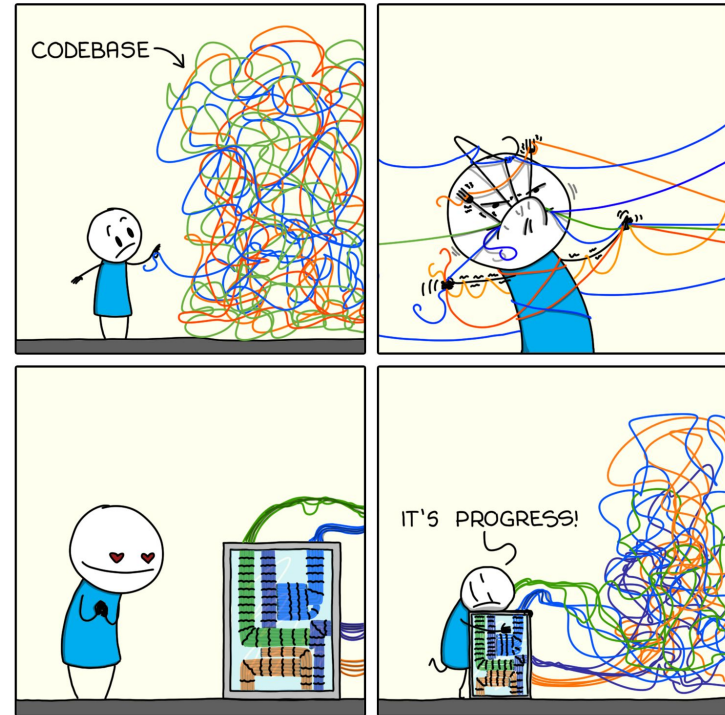
What is Refactoring?

Changing existing source code without changing its external behavior.



SMALL DELIGHTS

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Use Churn to Know when to Refactor

The more often a file is changed the more benefit you will get from refactoring it.

Example Churn Script:

<https://github.com/garybernhardt/dotfiles/blob/main/bin/git-churn>

```
git log --all -M -C --name-only --format='format:'  
| sort | grep -v '^$' | uniq -c | sort -n
```



Live Refactoring

Assumptions:

- Can't edit or inherit item class
- Short timeline for Conjured Mana Cakes
- Camping rule: leave things better than you found them.

This is just one of many ways to refactor this kata.



Learn More

Gilded Rose Kata:

<https://github.com/emilybache/GildedRose-Refactoring-Kata>

<https://www.youtube.com/@EmilyBache-tech-coach>

Refactoring (Martin Fowler):

<https://refactoring.com/>

Understand Legacy Code:

<https://understandlegacycode.com/>

Legacy Code Rocks:

<https://legacycode.rocks/>

SaturdayMP Videos:

<https://www.youtube.com/@saturdaymp>

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Repo:

<https://github.com/saturdaymp-examples/a-refactoring-tale-python>