MyCookieBook

Week 17 – Design Patterns

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Hey Cookies,

we looked at design patterns in our software this week. Design patterns are solutions to recurring problems in software engineering. There are three groups of design patterns: creational, structural and behavioural.

Because our project is small and the Springboot framework already offers some patterns in the library for free, it was a bit difficult for us to find a suitable design pattern for our project. We decided to integrate the **Adapter Pattern** from the structural group into our software. This pattern allows us to convert the interface of a class into another interface clients expect and lets classes work together.

We use the Adapter Pattern to connect the repository with our API interface. In the picture below you can see our code before refactoring with the design pattern. In line 51, the repository is accessed directly. At this point the adapter pattern was implemented.

```java
48      // Read recipe
49      @GetMapping("/recipes/read")
50      public Recipe readRecipe(@RequestParam("id") Long id, HttpServletResponse response) {
51          Optional<Recipe> recipe = recipeRepository.findById(id);
52          if(!recipe.isPresent()) {
53              response.setStatus(HttpServletResponse.SC_NOT_FOUND);
54              return null;
55          } else {
56              return recipe.get();
57          }
58      }
```
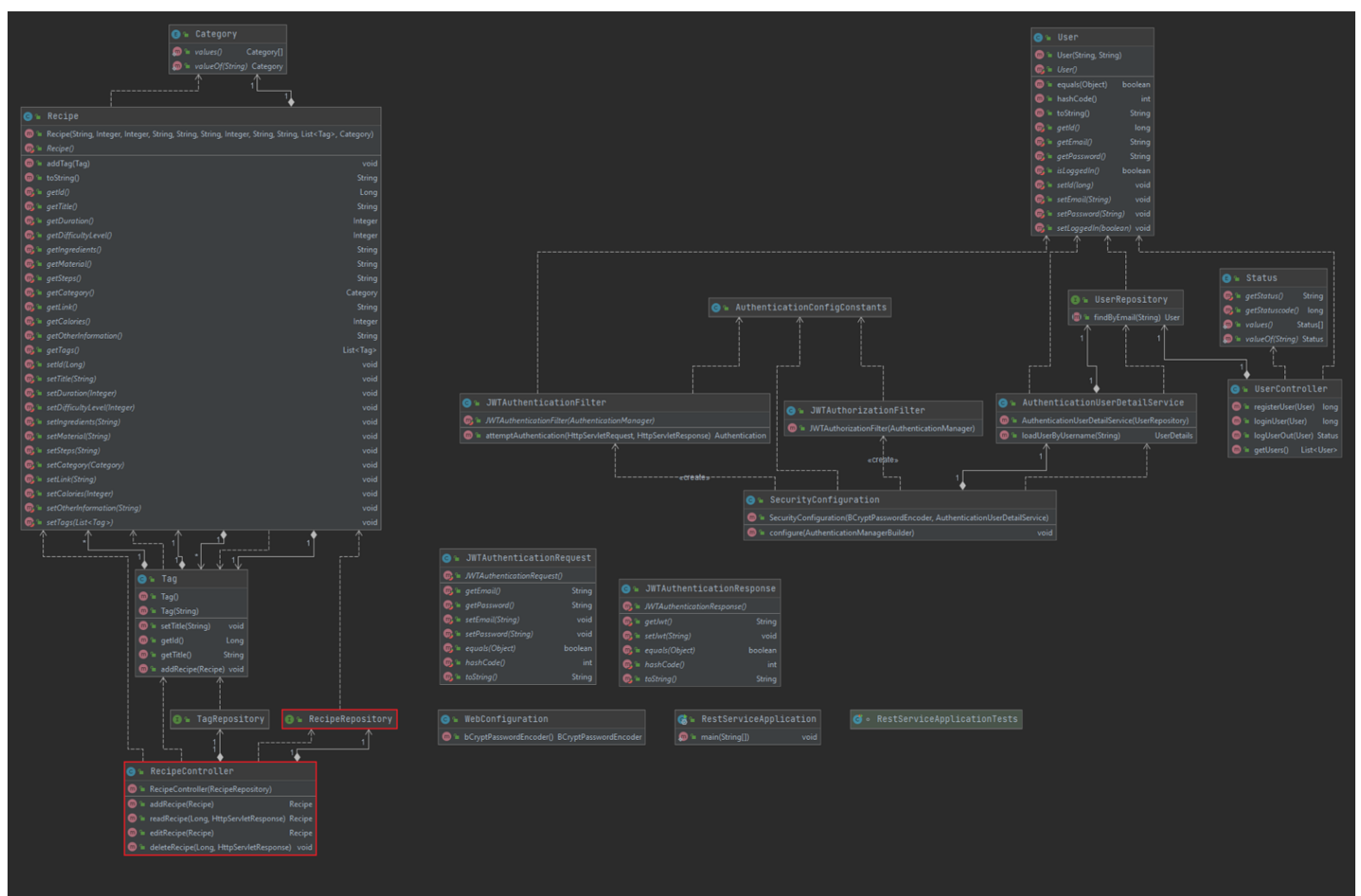
After integrating the pattern:

```
49        // Read recipe
50        @GetMapping("/recipes/read")
51        public Recipe readRecipe(@RequestParam("id") Long id, HttpServletResponse response) {
52            Optional<Recipe> recipe = service.findById(id);
53            if(!recipe.isPresent()) {
54                response.setStatus(HttpServletResponse.SC_NOT_FOUND);
55                return null;
56            } else {
57                return recipe.get();
58            }
59        }
```

Here you can see the class diagram before the rebuild (take a closer look on **GitHub**). We highlighted the classes affected by the implementation of this design pattern.

And in the picture below you can see the result after integrating the Adapter Pattern (**Github**). In the diagram there is currently a connection between controller and repository because we implemented this pattern only for one of the controllers methods.

The class diagrams were generated by IntelliJ IDE. Check our updated **SAD** document where we added the overall class diagram above. Link to **code** in our git.

Thank you for reading and stay healthy.

MyCookieBook Team.

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5 thoughts on "Week 17 – Design Patterns"

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vaultionizer
16. May 2021 at 23:54

Dear CookieBook-Team,

thank you for your very delightful blog post. One may get the impression that you had a lot of fun with the implementation of design pattern. The Adapter Pattern seems to improve the reusability of your code and it improves the readability for outsides.
The impact of your design pattern is show quiet well in your before/after class diagrams. (Even though I would welcome it if you could implement the second screenshot of the class diagram in the same way as the first, to keep your high quality.)
Last but not least, it would be nice of you if you could explain your choice regarding the design pattern. Like mentioned before I personally find your choice fitting but it would be interesting to hear your reasoning.

Thanks for your blog post, it helps own motivation, to see your dedication in your project.

Kind regards,

Team Vaultionizer

⭐ Like

Reply

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mycookiebook

18. May 2021 at 11:20

Hey Vaultionizer,

Thank you for your great comment.
As mentioned before in the blogpost we decided to use the Adapter pattern, because we couldn't really find a pattern that would fit into our project perfectly and the Adapter pattern was the most fitting one.

we hope it is a satisfying answer.

Stay healthy and safe

Your MyCookieBook – Team

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Reply

Rico
17. May 2021 at 14:34

Hey CookieBook team,

thanks for your blog post. We also had trouble finding a matching pattern that made sense in our project. So compliments that you found one.

One thing you could improve is to explain in more detail what the Adapter Pattern is about.
Maybe just a link.
And as Vaultionizer already pointed out, explain your choice of pattern in more detail.

Good work!

Keep it up

Best regards
Rico Mood4Food

⭐ Liked by you and **1 other person**

Reply

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mycookiebook
17. May 2021 at 19:34

Hey Rico,
thank you for your comment.
Tomorrow we will have a meeting and will have a look on the topic again.
So maybe we will change the blogpost a bit as you mentioned linking the adapter pattern etc..

Stay healthy,
Your MyCookieBook Team

★ Like

Reply

mycookiebook
18. May 2021 at 11:23

Hey Rico,
as mentioned before we sat down today and talked about the blogpost.
If you hover over the word Adapter Pattern in the second paragraph you will find the link.

Stay healthy and safe,

Your MyCookieBook – Team

★ Like

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