Juniorprogrammierer.de

Java 4: Clean coding

2024/25 – Sascha Stojanovic

Agenda

- Check Schaltjahr exercise
- How to get started with Clean Code?
- Literature recommendation
- Exercise

How to get started with Clean Code?

- Clean Code can be a common rule book for a Dev Team to regulate how you and your collegues are coding
- Advantage:
  - Code ownership is easier to spread among you teammates
  - Debugging is simplified
  - …
- In order for this to work it needs to be accepted by the whole team
- The following Clean Code rules are based on Robert C. Martin's "Clean Code" an widely accepted among developers world wide

Rules I

- Use pronouncable names
  - The deeper you dive into source code the more cryptical naming convetion becomes
  - Use names you can pronounce which are real words
  - Good: "detection_obect"; Bad: "dobj"

- Use clear descriptive names and avoid generic names
  - Developer tend to create "God-classes" which are generic and grow endlessly
    - Loose overview of what the class does
    - Causes double development, because you don't find method you need
  - Good: "CustomerBankaccountManager"; Bad: "Manager"

Rules II

- Avoid abbreviation
  - An abbreviation might be clear for your but a third person might misunderstand it
  - Good: "customer"; Bad "cust" (custom, customizing…)
- Naming convention for classes
  - Use nouns
  - Use UpperCamelCase
  - In general use singular except if class is indeed a collection of objects
    - Example "CarCollection"
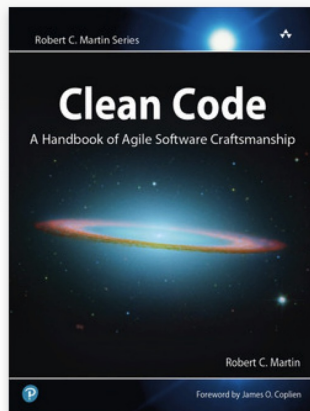 - Good: "CustomerAccount"; Bad: "customerAccountbooking"

Rules III

- Naming convention for methods
  - Use verbs
  - Use camelCase
  - Good: "withdrawMoney", Bad: "MoneyWithdrawal"
  - Special case for Boolean methods => Use **is... or has...** in the beginning
  - Good: "isAccountEmpty"; Bad: "accountIsEmpty"

Rules IV

- Naming convention for variables
  - Use decriptive Names => describe clearly the purpose
    - Good: "totalAmountInvoice"; Bad: "amount"
  - Use camelCase
  - Use Plurals for lists of things
    - Good: "europeanCountries" ; Bad: "country"
  - For "final" declared variables use snake case and capital letters
    - Good: "MAX_FLIGHT_CONNECTION"; Bad: "maxFlightConnection"

Literature recommendation

https://www.oreilly.com/library/view/clean-code-a/9780136083238/

Clean Code: A Handbook of Agile Software Craftsmanship

by Robert C. Martin
Released August 2008
Publisher(s): Pearson
ISBN: 9780136083238

Read it now on the O'Reilly learning platform with a 10-day free trial.

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Exercise

- Tell me the mistakes and give me a better solution
    - Public class doingbackflips
    - Public class Helper
    - Public class Grocery_Shopping
    - public static final maxConnection
    - int maxconnection
    - String cust