Code Reading Club agenda

Reflection (4 mins)

- Between sessions, note times when you notice that code reading club has helped you in your other projects or conversations.

First glance (6 minutes)

The goal of this exercise is to practice to get a first impression of code and to act upon that.

Look at the code (1 min)

Look at the code at a glance, really not more than 1 minute. Then try to answer these questions:

- What is the first thing that catches your eye? Why is that?

- What is the *second* think that you see? Why?

- Are these two things (variables, classes, programming concepts) related?

Discuss the results (5 mins)

Discuss the results as a group. What lines of facts or concepts were chosen by everyone versus by only a few people?

Reflect also on what kind of knowledge did you use in this exercise? Knowledge of the domain, of the programming language? Of a framework? What knowledge do you think might be needed to better understand this code?

Code structure (20 minutes)

Examine structure (10 minutes)

The goal of this exercise is to be a concrete thing to *do* when looking at new code for the first time. New code can be scary, doing something will help!

Color variables

- Go through the code and circle all variables in red
- Then draw a link between variables and their uses

Color method/function calls

- Go through the code and circle all methods in blue
- Then draw a link between methods and their invocations

Instantiation

- Go through the code and circle all instances of classes in green
- Then draw a link between classes and their instances

Discuss the results (10 mins)

1. What patterns are visible from the colors and links only?
2. What parts of the code warrant more attention based on the colors?
3. What strategy did you use to identify the different types of element?

Content (30 minutes)

A random line (5 mins)

Select a random line from the code in whatever way you like. Examine this line individually. What is the main idea of this line? What lines does it relate to and why?

Discussion (10 mins)

Discuss in the group:

- What is the 'scope' of the random line? What part of the code was seen as related?
- How does the line fit into the rest of the code base?

Identify most important lines (5 mins)

Independently identify the 5 lines you consider most important.

Discussion (10 mins)

Discuss in the group:

- lines covered by many people?
- lines named but not by a lot of people
- What strategy did you use to identify importance?
- Agree less than 10 of the most important lines

Take turns in the group, and let every member talk about the code for 30 seconds (or less/more, could also be one sentence each). Try to add new information and not repeat things that have been said, and repeat until people do not know new things anymore.

Summary (15 minutes)

Summarize in less than 10 sentences individually (5 mins)

1. Independently write down the essence of the code in a few sentences

Discussion (10 mins)

- topics covered by many vs few

- strategies used to create the summary (e.g. method names, documentation, variable names, prior knowledge of system)

Summarize in less than 10 sentences (5 mins)

1. Create a summary together
2. Compare the summary with the available documentation (inside and outside the code)

- identify differences and similarities between the groups findings and the existing

Wash up (5 mins)

- What worked well
- What worked badly