

**RQ1:** *How do developers define code smells?* – The traditional literature defines code smells as anomalous code structures that may hinder software maintenance and evolution. The occurrence of code smells may prevent developers from easily reading, reasoning about, and changing source code. Previous work investigated whether developer’s perception on code smells contrasts with the academic wisdom. Unfortunately, the most research study was conducted in 2016 and published in the next year, so that the captured perceptions may not reflect a more recent generation of developers. To address this limitation, our work targets the perceptions of developers who started working from 2016.

**RQ2:** *Are developers concerned about adding code smells to the source code they produce?* – Several studies suggest that, from the developer perspective, code smells are harmful to software maintenance and evolution. Thus, developers should avoid the introduction of code smells while they perform their daily tasks. Similar to previous studies, we want to understand the extent in which developers care about adding code smells to their source code. With RQ2, we aim to complement the current knowledge on the concerns of developers – perhaps revealing a new perspective on this subject – by investigating the perception of a more recent generation of developers.

**RQ3:** *Do developers use tools to detect code smells on the source code they produce, consume, or maintain?* – Previous studies investigate the industry adoption of automated tools for different purposes, e.g., refactoring, bug detection, and security assessment. We are aware that certain developers show reluctance in using tools as they are afraid of side-effects like an expected software quality decay. With RQ3, we aim at investigating this subject in the context of code smell detection tools. We advocate for the use of code smell detection tools because the manual detection can be complex, error-prone, and time consuming. In this context, we would like to know the extent to which a more recent generation of developers embraces code smell detection tool adoption.